

2001

GVSU Undergraduate and Graduate Catalog, 2001-2002

Grand Valley State University

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Some Facts about Grand Valley

Location: Allendale, Michigan (12 miles west of Grand Rapids).

Established: 1960. First class in 1963. **Campus:** 897 acres.

Type of Institution: Four-year public university, undergraduate and graduate programs. Undergraduate degrees: bachelor of arts (B.A.), bachelor of science (B.S.), bachelor of fine arts (B.F.A.), bachelor of music (B.M.), bachelor of music education (B.M.E.), bachelor of social work (B.S.W.), bachelor of business administration (B.B.A.), bachelor of science in engineering (B.S.E.), bachelor of science in nursing (B.S.N.). Graduate degrees: master of business administration (M.B.A.), master's in physician assistant studies (M.P.A.S.), master of science (M.S.), master of education (M.Ed.), master of science in engineering (M.S.E.), master of health sciences (M.H.S.), master of science in nursing (M.S.N.), master of science in nursing/master of business administration (M.S.N./M.B.A.), master of public administration (M.P.A.), master of social work (M.S.W.), and master of the science of taxation (M.S.T.).

Tuition: Undergraduate lower-division tuition is \$188 per credit hour for 1–11 credits, \$4,272 total for 12–16 credits, and \$188 per credit over 16 hours for Michigan residents. For upper-division Michigan residents, tuition is \$195 per credit hour for 1–11 credits, \$4,430 for 12–16 credits, and \$195 per credit over 16 hours. Nonresident lower-division tuition is \$395 per credit hour for 1–11 credits, \$9,244 for 12–16 credits, and \$395 per credit over 16 hours. Nonresident upper-division tuition is \$408 per credit hour for 1–11 credits, \$9,556 for 12–16 credits, and \$408 per credit over 16 hours.

Graduate tuition for Michigan residents is \$202 per credit hour for 500 and 600 level courses, and \$195 per credit hour for courses below the 500 level; for non-Michigan residents, \$437 per credit hour for 500 and 600 level courses, and \$408 per credit hour for courses below the 500 level.

Room and Board: Residence halls: \$2,690; Living Centers: \$2,915; Ravine Apartments: \$1,125 (two-bedroom), \$1,375 (one-bedroom); Laker Village Apartments: \$1,380–\$1,960, depending on size of apartment and number of roommates; Grand Valley Apartments: \$1,500–\$1,960, depending on size of apartment and number of roommates; Secchia Hall: \$1,750–\$2,750, depending on size of apartment and number of roommates.

Note: Rates for tuition and room and board are those for 2001–2002 and are subject to change by the Board of Trustees.

Enrollment: 18,579. **Faculty** (regular): 532. **Support staff:** 771.

Academic year: Two 15-week semesters; fall semester, August 27, 2001, to December 15, 2001; winter semester, January 7, 2002, to April 27, 2002. Summer session: 12 weeks.

Library: More than 672,000 volumes; 3,422 periodical subscriptions; 6,200 electronic journals; 21,639 reels of microfilm.

Computer Support: More than twenty classrooms/open labs with Pentium® Windows® and Macintosh® machines; all classroom and student living areas networked for Internet access, e-mail, courseware, registration, and many other student services.

Accreditation: The Higher Learning Commission; Member–North Central Association, 30 N. LaSalle Street, Suite 2400, Chicago, IL 60602-2504; telephone: 1-800-621-7440. Associate member of the National Association of Schools of Art and Design (NASAD) and the National Association of Schools of Music (NASM). Seidman School of Business accredited by the American Assembly of Collegiate Schools of Business (AACSB). Accounting and Taxation programs accredited by the American Assembly of Collegiate Schools of Business (AACSB). Chemistry Department accredited by the Committee on Professional Training of the American Chemical Society. School of Education accredited by the National Council for Accreditation of Teacher Education (NCATE). Bachelor of science in engineering program accredited by the Accreditation Board of Engineering and Technology (ABET). Nursing program accredited by the National League for Nursing (NLNAC). Occupational Therapy program accredited by the Accreditation Committee of Occupational Therapy Education (ACOTE). Physical Therapy program and Movement Science Athletic Training program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTA). Physician Assistant Studies program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). School of Public and Nonprofit Administration accredited by the National Association of Schools of Public Affairs and Administration (NASPAA). School of Social Work accredited by the Council on Social Work Education (CSWE).

For more information about Grand Valley, write or telephone the Admissions Office, 1 Campus Drive, Grand Valley State University, Allendale, Michigan 49401-9403. Telephone: (616) 895-2025 or toll free 1-800-748-0246.

A map of the Grand Valley campus in Allendale is on the inside back cover.

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Grand Valley State University is an affirmative action, equal opportunity institution. It encourages diversity and provides equal opportunity in education, employment, all of its programs, and the use of its facilities. It is committed to protecting the constitutional and statutory civil rights of persons connected with the university.

Unlawful acts of discrimination or harassment by members of the campus community are prohibited. In addition, even if not illegal, acts are prohibited if they harass or discriminate against any university community member(s) through inappropriate limitation of access to, or participation in, educational, employment, athletic, social, cultural, or other university activities on the basis of age, color, disability, familial status, height, marital status, national origin, political affiliation, race, religion, sex/gender, sexual orientation, veteran status, or weight. Limitations are lawful if they are: directly related to a legitimate university purpose, required by law, lawfully required by a grant or contract between the university and the state or federal government, or addressing domestic partner benefits.

The University and Its Objectives

The University and Its Objectives

Grand Valley State University's role is that of a public, comprehensive institution that provides educational services to West Michigan. The institution offers liberal arts and professional education for its students, contributes to the advancement of knowledge, applies that knowledge to societal needs, assists the state in its development, enriches the cultural life of the citizens of the region, and prepares its graduates to be citizens of an increasingly global society. Grand Valley State is dedicated to the pursuit of excellence in all its endeavors.

Grand Valley State University seeks to achieve its undergraduate instructional mission through a liberal education curriculum that acquaints students with the tradition of humane values and the heritage, problems, and perspectives of their own and other cultures and that develops the lifelong skills of critical thinking, articulate expression, and independent learning. All degree-seeking undergraduates complete a General Education Program, which extends through the senior year. Liberal education values permeate the major programs as well, both the traditional liberal arts and sciences disciplines and the professional programs. International experiences help students expand their knowledge of their own cultural heritage and gain new perspectives on society and on themselves.

Grand Valley State's graduate instructional mission is linked to its cooperative relationships with business, industry, public and private agencies, and institutions worldwide. In response to student and community needs, master's degrees are offered primarily in professional fields. Graduate programming includes degree programs, continuing education programs, and special certificate programs. Where appropriate, graduate study is offered in cooperation with other institutions.

Grand Valley State University endorses the ideal of lifelong learning and is committed to increasing educational access for adult learners. Accordingly, it sponsors an extensive continuing education program that makes community-based instructional programs available to working adults and other nontraditional students. Through this program, undergraduate and graduate courses and selected degree sequences are regularly scheduled and a variety of short-cycle, noncredit courses, workshops, and conferences are offered to meet specific educational needs.

Grand Valley State University is a learning community in which close student-faculty interaction enhances both teaching and learning. To support such an environment, the institution encourages students to participate actively with faculty in all aspects of their education, from formal classroom instruction to research, academic advising, cross-cultural interaction, and extracurricular activities.

The active pursuit of new knowledge is also essential for academic excellence, and Grand Valley State's faculty conduct both applied and basic research. The institution focuses its applied research activity primarily on issues directly related to regional, national, and global economic and social development and it conducts research projects in partnership with business, industry, and the public sector in West Michigan. Grand Valley faculty conduct basic research to develop new insights in all domains of knowledge. Rigorous scholarly inquiry of both types enhances the quality of instruction.

Grand Valley State University recognizes and supports the substantial contributions of its faculty and staff to its service mission. Additionally, the institution serves as a major cultural and information resource for the region by maintaining

The University and Its Objectives

a comprehensive library, broadcasting public-interest programs over its radio and television stations, and sponsoring artistic performances, lecture series, and other cultural events. Individual members of the university community serve as consultants in numerous areas of public and private enterprise in the region.

Grand Valley State University provides educational services throughout West Michigan from several locations. A full range of liberal arts and sciences and professional programs is offered at the main campus in Allendale, where the characteristics of a liberal arts college are combined with the resources of a small university. The learning community is supported by library, computer, research, laboratory, cultural, and recreational resources. In addition, the institution draws upon and contributes to the resources of the area through four regional centers. At the Pew Grand Rapids campus, graduate and upper-division professional programs are offered, research is conducted, and economic development services are provided to meet the needs of West Michigan's business and industry concerns and the public sector. Its location in the center of Michigan's second-largest metropolitan area enables the Grand Rapids campus to most effectively support the growth and development of high-technology companies, to improve the competitiveness of traditional manufacturing industries, and to foster the creation of new industries. Its central location also strengthens its capacity to provide instructional and applied research support to the various agencies and governmental units that provide and administer human services. Educational centers in Holland, in Muskegon at the Muskegon Center for Higher Education, and in Traverse City at the Northwestern Michigan College University Center provide educational opportunities for students in communities along the eastern shore of Lake Michigan.

As its mission expands, Grand Valley State University remains committed to its original tenets: an emphasis on the centrality of liberal education, an instructional approach that stresses the need to pay attention to students as individuals, a recognition that the ambience of campus life has a major impact on the educational process, a commitment to community service, and access for all qualified citizens of West Michigan and the state. The institution will continue to evolve as the educational needs of its students, West Michigan, the state, the nation, and the world change. Grand Valley State University provides academic, cultural, and economic leadership commensurate with its mission as the public higher education resource for the region.

Notice

All material in this catalog applies to the 2001-2002 academic year and reflects information available on the publication date. Grand Valley State University reserves the right to revise all announcements contained in this publication and, at its discretion, to make reasonable changes in requirements to improve or upgrade academic and nonacademic programs. A reorganization in 1982 merged certain academic units and programs. These changes will not affect the credits already earned by current students.

Calendar

Grand Valley Calendar, 2001-04

Fall Semester 2001

Convocation	August 24, 2001
Classes Begin	August 27, 2001
Labor Day Recess	September 2-4, 2001
Thanksgiving Day Recess	November 21-25, 2001
Classes End	December 8, 2001
Commencement	December 8, 2001
Examinations	December 10-15, 2001
Semester Ends	December 15, 2001
Grades Due	December 18, 2001

Winter Semester 2002

Classes Begin	January 7, 2002
Spring Break	March 3-10, 2002
Classes End	April 20, 2002
Examinations	April 22-27, 2002
Semester Ends	April 27, 2002
Commencement	April 27, 2002
Grades Due	April 30, 2002

Spring/Summer Session 2002

Classes Begin first six-week session and 12-week session	May 6, 2002
Memorial Day Recess	May 27, 2002
Classes End first six-week session	June 17, 2002
Examinations first six-week session	June 18-19, 2002
Classes Begin second six-week session	June 24, 2002
Independence Day Recess	July 4, 2002
Classes End second six-week session and 12-week session	August 2, 2002
Examinations second six-week session and 12-week session	August 5-6, 2002
Session Ends	August 6, 2002

Fall Semester 2002

Convocation	August 23, 2002
Classes Begin	August 26, 2002
Labor Day Recess	September 1-3, 2002
Thanksgiving Day Recess	November 27-December 1, 2002
Classes End	December 7, 2002
Commencement	December 7, 2002
Examinations	December 9-14, 2002
Semester Ends	December 14, 2002
Grades Due	December 17, 2002

Winter Semester 2003

Classes Begin	January 6, 2003
Spring Break	March 2-9, 2003
Classes End	April 19, 2003
Examinations	April 21-26, 2003
Semester Ends	April 26, 2003
Commencement	April 26, 2003
Grades Due	April 29, 2003

Calendar

Spring/Summer Session 2003

Classes Begin first six-week session and 12-week session	May 5, 2003
Memorial Day Recess	May 26, 2003
Classes End first six-week session	June 16, 2003
Examinations first six-week session	June 17–18, 2003
Classes Begin second six-week session	June 23, 2003
Independence Day Recess	July 4, 2003
Classes End second six-week session and 12-week session	August 1, 2003
Examinations second six-week session and 12-week session	August 4–5, 2003
Session Ends	August 5, 2003

Fall Semester 2003

Convocation	August 22, 2003
Classes Begin	August 25, 2003
Labor Day Recess	August 31–September 2, 2003
Thanksgiving Day Recess	November 26–30, 2003
Classes End	December 6, 2003
Commencement	December 6, 2003
Examinations	December 8–13, 2003
Semester Ends	December 13, 2003
Grades Due	December 16, 2003

Winter Semester 2004

Classes Begin	January 5, 2004
Spring Break	February 29–March 7, 2004
Classes End	April 17, 2004
Examinations	April 19–24, 2004
Semester Ends	April 24, 2004
Commencement	April 24, 2004
Grades Due	April 27, 2004

Spring/Summer Session 2004

Classes Begin first six-week session and 12-week session	May 3, 2004
Memorial Day Recess	May 31, 2004
Classes End first six-week session	June 14, 2004
Examinations first six-week session	June 15–16, 2004
Classes Begin second six-week session	June 21, 2004
Independence Day Recess	July 5, 2004
Classes End second six-week session and 12-week session	August 2, 2004
Examinations second six-week session and 12-week session	August 3–4, 2004
Session Ends	August 4, 2004

Fall Semester 2004

Convocation	August 27, 2004
Classes Begin	August 30, 2004
Labor Day Recess	September 5–7, 2004
Thanksgiving Day Recess	November 24–28, 2004
Classes End	December 11, 2004
Commencement	December 11, 2004
Examinations	December 13–18, 2004
Semester Ends	December 18, 2004
Grades Due	December 21, 2004

Note: The calendar for registration is published in the Schedule of Classes each semester.

The Campus

The Campus

Grand Valley State University's main campus is located almost midway between downtown Grand Rapids and Lake Michigan, near the town of Allendale. The natural land structure of Grand Valley's 1,078-acre campus is formed by deep wooded ravines penetrating a high bluff overlooking the Grand River to the east and gently rolling open fields to the west. The campus is designed to take advantage of the area's scenic wooded ravines as well as its open meadowlands.

Automobile traffic is routed along a main campus drive to parking lots at the edge of the academic areas. Winding walkways between buildings connect with a series of natural trails along the river bank.

A 230-foot pedestrian bridge called "Little Mac" spans a spectacular 70-foot-deep ravine to connect the north and south sections of the campus.

Great Lakes Group: Lake Michigan Hall, Lake Superior Hall, Lake Huron Hall, and Seidman House. The first buildings constructed on Grand Valley's campus, in 1963–64, they are characterized by tall, slender concrete arches and native Michigan fieldstone.

Lake Michigan Hall houses the Business Services Offices, the Human Resources and the Affirmative Action Offices, and the University Communications Office.

Lake Superior Hall houses the English and Philosophy Departments, the School of Communications, and the Office of the Dean of the Arts and Humanities Division, as well as three English composition computer labs (87 Pentium).

The Campus

Lake Huron Hall houses the Department of English Language and Literature.

Located in Seidman House are the Archives, the Rare Book Collection, and the Lemmen Collection on Lincoln and the Civil War. In addition, the building contains a quiet study area seating 65, with scenic views of the Ravines. The building is named for the Thomas Erler Seidman Foundation of Grand Rapids, which donated the funds for its construction.

The James H. Zumberge Library, named for Grand Valley's first president, has received several awards for its architectural design. The building has five levels, the top four used by the library and the lower level by the university's executive offices. The main floor of the library, entered from the campus walk, contains the circulation desk, library offices, reference collection, and periodical abstracts and indexes. Reference librarians are available at the Reference/Information desk near the main entrance. The book collection is located on the second and third floors. Periodicals, newspapers, microforms, and microreaders are on the fourth floor. Throughout the building are reading areas furnished with lounge chairs, individual study carrels, and group work tables.

The library houses more than 672,014 volumes, 3,422 periodical subscriptions, 21,639 reels of microfilm, and other materials necessary to effectively support instructional programs at Grand Valley. As a United States Government and State of Michigan Depository Library, it receives and catalogs large numbers of federal and state documents. For those with special needs, access is provided to the collections of other libraries.

The Performing Arts Center houses faculty offices, classrooms, practice rooms, teaching studios for the performing arts, a music technology lab (using Macintosh computers), and two new dance studios. Located in this building is the 490-seat Louis Armstrong Theatre for presentations of plays, operas, concerts, and other programs. The Art Gallery is also located in this building.

Kirkhof Center is a multipurpose building containing student service facilities. The University Bookstore, the Lobby Shop, postal services, pay phones, commuter lockers, and the box office operations for campus events are located in Kirkhof Center. Food service is available from the River Cafe restaurant, the Oak Room, and vending machines. In addition to meeting rooms and lounge areas, the offices of the Student Senate, the Student Life Office, and the Special Event Services Office are located here.

AuSable Hall houses the Departments of Anthropology and Sociology, Modern Languages and Literatures, History, Political Science, Psychology, the Office of the Dean of Social Sciences, and the K-12 Curriculum Resource Center. In keeping with the tradition of selecting names associated with Michigan's famed waterways for the academic buildings, AuSable Hall is named for one of the state's most scenic rivers.

The Cook Carillon Tower, a 10-story brick and stone structure, is named in honor of its major donors, Mr. and Mrs. Peter C. Cook of Grand Rapids. The 48 bronze bells were cast by the renowned Royal Eijsbouts Bellfounders and Tower-clock Makers of the Netherlands. The bells range from 7.5 inches to 51.7 inches in diameter and are connected by cables to a keyboard in the chamber below. The keys, or levers, are configured like a piano keyboard and are played by striking the keys with the side of the hand. The Carillon chimes on every quarter hour on a computerized automatic play system.

The Campus

The Cook-DeWitt Center overlooks a scenic, wooded ravine in the heart of the campus. The building houses the offices of the campus ministry and a 230-seat auditorium with a 26-rank Reuter pipe organ. The building is named for Peter C. and Emajean Cook and Marvin and Jerene DeWitt, who donated funds for its construction.

The Islands Group: Mackinac Hall and Manitou Hall. The “U” position of these two buildings, constructed with ribbed concrete walls, bronze glass, and porcelain panels, forms a natural outdoor court with the adjacent Commons building.

Mackinac Hall contains classrooms as well as faculty offices. The Departments of Hospitality and Tourism Management, Mathematics and Statistics, Computer Science and Information Systems, the School of Education undergraduate division, and the Robert and Mary Pew Faculty Teaching and Learning Center are housed in Mackinac, as are an English composition computer lab (34 Pentiums) and a general purpose computer lab (34 Pentiums).

Manitou Hall contains lecture halls, Information Technology, Academic and Administrative Computing, and a 96-station Pentium computer lab for use by students. The campus mainframe, an IBM 3000, is housed in Manitou Hall along with the service and communications equipment for the university’s fiber-optic-based wide-area network and its connection to the Internet.

Grand Valley’s wide-area high-speed network provides a full complement of computer services. Thousand of computers spread throughout the campus serve both the instructional and administrative needs of the university. Most classrooms and lecture halls are equipped with computers and projection equipment for instruction and all are connected to the university’s network and the Internet. Nearly all academic disciplines use computer services on the Grand Valley campus.

The Calder Art Center, named for the artist whose stabile, **La Grand Vitesse**, is a Grand Rapids landmark, houses facilities for graphic design, painting, print-making, art education, drawing, ceramics, and two computer animation labs (42 Macintosh).

Science Complex: This complex consists of three separate buildings, the **Student Services Building**, **Henry Hall**, and the **Seymour and Esther Padnos Hall of Science**, and totals nearly 300,000 square feet.

The Campus

The Student Services Building combines a variety of student services under one roof. The offices of Admissions, the Career Planning and Counseling Center, Career Services, Financial Aid, Housing, Padnos International Center, Student Employment, Academic Resources and Special Programs, and the Dean of Students are located here. Also housed in the three-story building is the Student Assistance Center, which combines the services of Academic Records, Registration, Cashier, Graduation Audit, and the Registrar.

Henry Hall, named after former U.S. Representative Paul Henry of Grand Rapids, contains three lecture halls as well as the Physical Therapy program, six micro-computer labs (156 Pentium and 19 Macintosh), and a two-way interactive video distance learning classroom. Much of the artwork in the building is the work of Grand Valley alumni, faculty, and staff.

The Seymour and Esther Padnos Hall of Science, with its modern equipment, sophisticated instruments, and extensive map and specimen collections, is a well-equipped laboratory facility for study, research, and experimentation in the natural sciences. The Biology, Chemistry, Geology, and Physics Departments, as well as the School of Health Sciences, the Water Resources Institute, the Regional Math and Science Center, the Learning Center, and the office of the Dean of the Science and Mathematics Division are located in this building. Financed originally in part by funds from the Loutit Foundation of Grand Haven, the facility was enlarged and remodeled as part of the Life Sciences Complex. It was named in honor of Seymour and Esther Padnos for their many years of commitment to the university, particularly to its science programs.

The Commons accommodates dining facilities and offices. A dining room that serves students and the public is located on the upper level, with an entrance from the campus walkway on the east. On the lower level, a food court featuring Bené Pizza, Taco Bell, and Subway adjoins an outdoor patio overlooking a wooded ravine and the “Little Mac” pedestrian bridge. The Office of the Dean of Minority Affairs and the Multicultural Center are located on the lower level. The Student Organization Center, including the office for *The Lanthorn* student newspaper, WCKS student radio, Residence Housing Association (RHA), and other student organizations is also located here.

Kliener Commons is a newly expanded and renovated dining facility that includes a coffeehouse, sports café, and convenience store.

Grand Valley Apartments, an existing apartment complex located south of the GVSU campus, was purchased in July 2000 by GVSU. Twelve buildings provide 144 apartments and parking for GVSU students.

New housing is under construction for Fall 2001 and 2002. In Fall 2001, three new buildings will open, accommodating 494 students. Units will house two students in a common suite with bathroom and kitchenette. One building will accommodate the University’s Honors Program and will feature faculty offices and two Honors Program meeting rooms.

In the Fall of 2002, four new buildings will open, accommodating 568 students. Each unit will house two students, each with a private bedroom. A bathroom and a kitchenette are also provided in each unit.

Student Residences. Curving in an “S” shape along the winding rim of a ravine are three residence halls named after founding members of the University’s governing body: James M. Copeland House, Kenneth W. Robinson House, and Grace Olsen Kistler House. Accommodating 900 students, the residence halls are coeducational

The Campus

units with separate wings for men and women connected to central lounges. Each student is furnished with a computer network connection.

The Ravine Apartments, a townhouse style complex built along another scenic ravine nearby, accommodates 346 upperclass students in efficiency and one- or two-bedroom units. All units are computer network-equipped.

Laker Village Apartments, another townhouse-style complex on the south end of campus, accommodates 888 upperclass students in two-bedroom units. All units are computer network-equipped.

Eleven Living Centers named for GVSU Board of Trustees members Richard M. DeVos, Icie Macy Hoobler, Paul A. Johnson, William A. Kirkpatrick, Arnold C. Ott, Robert C. Pew, William F. Pickard, L. William Seidman, Dale Stafford, Maxine M. Swanson, and Ella Koeze Weed house 987 students. All the buildings are divided into suites consisting of two double rooms and a bath.

The Fieldhouse/Recreation Complex is located in the north central portion of campus. It includes playing fields, baseball and softball diamonds, tennis courts, and the Lubbers Stadium for football and track. The 210,000-square-foot field-house includes a multi-purpose arena for a variety of events, including basketball, volleyball, track, and cultural events. In addition, it includes two tennis courts and four badminton courts. The arena has a seating capacity for up to 5,900 for concerts and 4,200 for center court athletic events.

The complex includes a 26.5-foot-high rock climbing center within the gymnastics room. This state-of-the-art facility has over 2,100 square feet of climbing surface and 10 different lanes. Other facilities include a 25 yard x 25 meter swimming pool with seating for 300 spectators and one- and three- meter diving boards, lockers and showers, racquetball, squash and walleyball courts, a weight training room with more than 20 pieces of free weight equipment, a multi-purpose room, and a studio for dance and aerobics.

The Recreation Center, a 44,000-square-foot addition, can serve approximately 4,000 persons per day. The wing features a two-level fitness center, elevated track, and wood playing courts. The court area includes three basketball courts, overlays for three volleyball courts and six badminton courts. The fitness center has more than 35 weight machines, a Gravitron 2000, free weights, and a Life Force handicapped-accessible exercise system. The second-floor balcony houses approximately 40 pieces of cardiovascular equipment (including Stairmaster, Life-Fitness, Trotter, Nordic Track, and Precor). The elevated four-lane 1/8-mile fitness/walking track separates runners from the active sports on the main floor.

The Alumni House and Visitors Center stands at the entrance to the Allendale campus just inside the Lake Michigan Drive entrance. It houses the office of Alumni Relations and includes accommodations for overnight guests. The Perry Dining Room is available for university entertaining. For more information, call 1-800-558-0541.

The Meadows Golf Course is a championship 18-hole public golf course on the western edge of the campus. Located on the course are a Clubhouse and a Learning Center. The Clubhouse includes a restaurant and pro shop. The Learning Center is staffed by PGA and LPGA golf professionals and includes a short game area and two practice holes. The entire operation is user financed and open to the public. No university funds, student tuition, or taxpayer dollars are being used for the operation or maintenance of the course.

The Campus

The Richard M. DeVos Center on the 29-acre Grand Rapids campus downtown has 22 classrooms, three distance education classrooms, six computer labs (192 Pentium and 32 Macintosh), a student project area, and a 242,000 volume library with a computer-operated robotic retrieval system and New York-style reading room. The Seidman School of Business, the Kirkhof School of Nursing, the School of Social Work, the School of Public and Nonprofit Administration, the School of Criminal Justice, and the Development Office are housed in the DeVos Center. The Center contains a 250-seat auditorium and two 112-seat auditoriums, an exhibition hall, and numerous conference rooms. The Center also provides a full food service operation, a bookstore, a student transaction center, and an ATM machine.

The Steelcase Library, a juxtaposition of technology and tradition, is located on the first floor of the DeVos Center on the Pew Campus. An automated retrieval system, "SPOT," holds the library's circulating collection and can accommodate 250,000 volumes. The 10,400-square-foot library also includes a circulation desk, a traditional reference desk, microfilm/fiche reader/printers, computers, a reading room, a photocopy room, a bibliographic instruction center with computers for database access, staff offices, and workspaces. Librarians staff the reference desk.

A large reading room with a stained glass window provides a quiet study area with comfortable seating. The tables and carrels are wired for laptop computer use. The reading room holds the expanded reference collection and the current issues of 700 journal titles. This library houses the Grand Rapids Bar Association's law collection. Print resources available at the Steelcase Library support the following disciplines: business, criminal justice, social work, public and nonprofit administration, and law.

The Steelcase Library is accessible from the Fulton Street entrance to the DeVos Center or by following corridor A from inside the center. The Library is attached to the Beckering Family Carillon Tower.

The Campus

The Eberhard Center, on the Grand Rapids campus, has 43 classrooms and labs, a tutoring center, high-technology teleconference and conference facilities, and two interactive television rooms. The School of Education and the Padnos School of Engineering, including the high-tech Keller Engineering Laboratories, are housed in the Eberhard Center. Classes are offered in certain graduate and upper-level undergraduate programs.

Secchia Hall Apartments on the downtown Grand Rapids campus across from the Richard M. DeVos Center include 81 one- to four-bedroom apartments. Each apartment includes Internet access, cable television, telephone, air conditioning, on-site parking, and laundry.

The Meijer Campus in Holland, located at 515 Waverly Road, has 16 classrooms and labs, including a science lab, two computer labs (82 Pentium), and an interactive television room. The facility offers full services, including registration, advising, and library access, and is completely integrated into the university's computer network. Classes offered in Holland include the courses necessary to fulfill the basic skills and general education requirements, undergraduate degree programs in business administration, criminal justice, language arts/elementary education, nursing, and sociology, as well as graduate degree programs in business administration, education, and public administration.

The Meijer Public Broadcast Center, part of the university's Grand Rapids Campus, houses Grand Valley's public television stations, WGVU-TV 35 and WGVK-TV 52, radio stations WGVU-AM 1480, WGVU-FM 88.5, WGVS-AM 850 and WGVS-FM 95.3. These operations provide both local and national programs of interest to West Michigan audiences.

The Lake Michigan Center, located at 740 West Shoreline Drive, on the south shore of Muskegon Lake. It is the home for the Robert B. Annis Water Resources Institute, which is a leading Great Lakes water research organization. This facility provides faculty and staff offices, research labs, and berthing space for two research vessels.

Visiting the Campus

Prospective students are always welcome to visit the campus and talk with staff in Admissions or Financial Aid. The Admissions Office is happy to make arrangements for you to tour the campus, talk with faculty members, or sit in on classes.

The Admissions Office is open Monday through Thursday from 8 a.m. to 6 p.m. and on Fridays from 8 a.m. to 5 p.m. from September through April. Appointments are available on Saturdays from 9 a.m. to 4 p.m. during Grand Valley's academic year. Summer hours are from 8 a.m. to 5 p.m. Monday through Friday.

We do ask that you first make an appointment, especially for Saturday visits, with the Admissions Office by either calling or writing:

Admissions Office
Student Services Building
Grand Valley State University
Allendale, Michigan 49401-9403
Telephone: (616) 895-2025 or
Toll free: 1-800-748-0246 (for Admissions, Financial Aid, Housing, and Records).

Academic Excellence

Grand Valley prides itself on being a teaching institution dedicated to providing the highest possible level of quality instruction. The most crucial ingredient necessary for the achievement of this goal—the quality of the faculty—was judged “impressive” by the evaluation team of the Higher Learning Commission, North Central Association of Colleges and Schools.* Seventy-eight percent of the faculty have earned doctoral degrees or other appropriate terminal degrees. Similarly, the evaluators cited the nonteaching professional staff and Grand Valley’s facilities as institutional strengths. In addition, the evaluation team was impressed by the enthusiasm and loyalty of Grand Valley students, whom they characterized as articulate and well informed. The quality of instruction is enhanced further by small class size, individual student advising, and career counseling.

The Center for Research and Development is the focal point of the university-wide effort in research and other aspects of professional development of the faculty. Students are involved with the center through their participation in research projects directed by the faculty. These projects range from laboratory or field-based work to library-derived information and creative, fine arts, or performing arts projects. Grand Valley encourages student involvement in its efforts to generate new knowledge as an invaluable learning experience.

Our instructional offerings encompass over 100 academic and career preparation programs leading to degrees in more than 75 major areas.

* Accredited-The Higher Learning Commission; Member-North Central Association, 30 N. LaSalle Street, Suite 2400, Chicago, IL 60602-2504; telephone: 1-800-621-7440.

Academic Excellence

Grand Valley is proud to have campus chapters of 15 national honor societies: Phi Kappa Phi (general scholarship and character, all disciplines), Beta Beta Beta (biological sciences), Beta Gamma Sigma (business), Beta Alpha Psi (accounting), Dobro Slovo (Slavic), Phi Alpha Theta (history), Phi Epsilon Kappa (physical education, health, and recreation), Pi Alpha Alpha (public administration), Pi Sigma Alpha (political science), Psi Chi (psychology), Alpha Kappa Delta (sociology), Sigma Delta Pi (Spanish), Sigma Tau Delta (English), Sigma Theta Tau (nursing), Sigma Xi (science), and Upsilon Pi Epsilon (computer science).

Grand Valley is a member of the National Association of Schools of Art and Design (NASAD) and of the National Association of Schools of Music (NASM). The Chemistry Department is accredited by the Committee on Professional Training of the American Chemical Society. The School of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE). The bachelor of science in engineering program is accredited by the Accreditation Board for Engineering and Technology (ABET). The nursing program is accredited by the National League for Nursing (NLNAC). The physician assistant studies program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The physical therapy curriculum is accredited by the Commission on Accreditation in Physical Therapy of the American Physical Therapy Association. The occupational therapy program is accredited by Accreditation Committee of Occupational Therapy Education (ACOTE). The School of Social Work is accredited by the Council on Social Work Education (CSWE). The Master of Public Administration program is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA). The Seidman School of Business is accredited by the American Assembly of Collegiate Schools of Business (AACSB). The Accounting and Taxation programs are accredited by the American Assembly of Collegiate Schools of Business (AACSB).

Grand Valley nursing graduates traditionally earn high scores on state board examinations. The placement rate of Grand Valley graduates in professional schools such as law and medicine is high.

Grand Valley offers an undergraduate Honors Program for especially qualified students. Students with exceptional records in high school or junior or community colleges may qualify for a scholarship. Scholarship eligibility criteria for students are detailed in the Financial Aid section of this catalog.

Student Life

Grand Valley reaches far beyond the typical college activity list to make life on campus exciting and enjoyable. Students can take advantage of a great variety of clubs and organizations, including cultural organizations, performing arts groups, recreational clubs, religious groups, social organizations, fraternities and sororities, professional associations, special interest groups, leadership groups, and community service organizations.

Student Organizations

Cultural Interest Organizations

Students who join these groups will have the opportunity to explore other cultures and share their own heritage. A wide range of activities, including lectures, concerts, and festivals, allows students to develop leadership skills and promotes culture and diversity at Grand Valley.

Arab Cultural	Latino Student Union
Asian Student Union	Le Cercle François
Black Student Union	Native American Student Association
Ethnic Festival Committee	Russian Circle
International Student Association (ISA)	Students for a Free Tibet
La Tertulia	

Performing and Fine Arts Organizations

Performing arts organizations offer students the opportunity to become involved in music, dance, and stage activities outside the classroom.

Concert Band	Orchestra
Festival Chorale	Small Jazz Ensemble
GVSU Singers	Student Technicians and Actors Guild for Entertainment (S.T.A.G.E.)
Madrigal Ensemble	Symphonic Wind Ensemble
Marching Band	Voices of GVSU (Gospel Choir)
Music in Motion	

Special Interest Groups

GVSU students interested in politics, academic discussions, hobbies, social action, or a variety of other concerns have many clubs from which to choose.

Active Citizenship Amnesty International	Lantern (student newspaper)
Alternative Realities	Otaku No Anime
Amateur Radio Club	Out-n-About (gay, lesbian, bisexual)
Campus Girl Scouts	Renaissance Festival
Circle K International	Sci-Fi
College Democrats	Students Against Sweatshops
College Republicans	Student Voice
Crossroads (commuter programming and support)	Studio 19 Dance Co.
Dance Troupe	Syllabus
Electric Racing Team	Veterinary Club
F.O.R.G.E.	WCKS (student radio)
Gaming Club	Wheel, Run 5K Challenge
Islanders	You Beautiful Black Woman

Student Life

Sports Clubs

Recreational sport clubs provide opportunities for competition with other schools through individual and team events. Other organizations provide personal fitness opportunities and school spirit support.

Backpacking Club	Men's Volleyball
Cheerleading	Synchronized Skating Team
Cycling	Rodeo/Equestrian Club
Fencing Team	Rowing Club/Crew Team
Freestyle Martial Arts	Rugby Club—Men and Women's
Frisbee Club	Sailing Team
4-Wheelers Club	Ski Team
GVSU Shooting Team	Tai Chi
Hockey Club	USA Tae Kwon Do
Kung-Fu Club	Vertical Ventures (rock climbing)
Lacrosse—Women's	Water Polo—Men and Women's
Laker Dance Team	Women's Volleyball
Men's Soccer	Wrestling Club

Religious Groups

Student organizations that focus on religion offer opportunities for spiritual growth and social interaction.

Campus Advance	Glory Phi God Campus Ministry
Campus Bible Fellowship	His House Christian Fellowship
Campus Crusade for Christ	Impact Campus Ministry
Campus Ministry	Inter-Varsity Christian Fellowship
Christianity on Campus	United Methodist Student Fellowship

Professional Associations

Professional associations offer students the opportunity to develop their knowledge and appreciation for academic disciplines outside the classroom. Almost every academic program offers such co-curricular opportunities. Guest lecturers, field trips, special projects, contacts with professionals in the field, and networking provide opportunities for individual development.

Alpha Kappa Delta (sociology fraternity)	National Residence Hall Honorary
Alpha Phi Omega (service fraternity)	National Society of Black Engineers
Alpha Phi Theta (history)	Omicron Delta Kappa
American Advertising Federation	Petitioning Chapter of Beta Alpha Psi
American Marketing Association	Phi Epsilon Kappa
American Physician Assistant Studies (APAS)	Physical Therapy Class 2001, 2002, 2003
American Society of Mechanical Engineers	Physics Club
American Society of Safety Engineers	Press Club
Anthropology Club	Pre-Physical Therapy Club
Athletic Training/Sports Medicine	Pre-Physicians Assistant Club
Bachelor of Social Work	Pre-Professional Club
Biology Club	Psi Chi (psychology)
Chemistry Club	Public Relations Student Society of America (PRSSA)
College Bowl	Sigma Tau Delta (English)
Council for Exceptional Children	Society for Human Resource Management
CSAL Graduate Association	Society for the Advancement of Management
Delta Sigma Pi (business)	Sociology Club
Finance Club	Soil and Water Conservation Society
Geography Club	Student Occupational Therapy
Geology Club	Therapeutic Recreation Club
GVSU Nurses	
Hospitality Management Association	
Mathematics and Statistics Club	

Greek Life

Greek Life provides students with the opportunity to increase their leadership, academic, and social skills in an atmosphere of friendship and support. Fraternities and sororities promote academic excellence through scholarship programs, sponsor and participate in community and national service projects, and encourage personal development through officer positions and social contacts.

Governing Councils	Fraternities	Sororities
Interfraternity Council	Acacia	Alpha Kappa Alpha
Minority Greek Council	Alpha Phi Alpha	Alpha Omicron Pi
National Pan-Hellenic Council	Alpha Sigma Phi/Delta Sigma Phi	Alpha Sigma Alpha
Order of Omega	Sigma Phi	Alpha Sigma Tau
Panhellenic Council	Lambda Chi Alpha	Delta Sigma Theta
Presidents' Council	Phi Delta Psi	Delta Zeta
	Sigma Phi Epsilon	Phi Gamma Psi
	Tau Kappa Epsilon	Sigma Kappa
	Theta Chi	Sigma Lambda Gamma
		Sigma Sigma Sigma

Student Entertainment

Spotlight Productions plans and presents a wide variety of events. Students choose entertainers and work together to produce events. The organization is open to all

Student Life

students including freshmen and new students. These include comedy, lecture, films, traditional events, music, and guests.

Cultural Board

The Cultural Board is designed to assist students of color from a variety of ethnic backgrounds in developing their leadership skills and strengthening their cultural and political knowledge base. The board offers a variety of experiences including educational workshops and forums, facilitation, community service, and professional development through conferences, training, etc. The Cultural Board is open to all students interested in issues specific to culture and ethnicity and promotes an environment that allows for exchange of ideas and continual growth in services.

Student Government

Students living in residence halls can become involved in their governance through the following organizations:

Calder Council	Living Center II
Copeland House Council	Living Center III
Grand Valley Apartment Council	Living Center IV
Holland Student Congress	Ravine Organizational Committee
Kistler House Council	Residence Housing Association
Laker Village Council	Robinson House Council
Living Center I	

Student Senate

The Student Senate is an elected body of 40 students. The Senate conveys student opinion to the GVSU Administration and the Board of Control in matters of institutional policy. The Senate also provides a forum for discussion, investigation, and resolution of student ideas and concerns. The Senate is responsible for the allocation of the Student Life Fund and for the appointment of student representatives to all university standing committees and advisory boards. The Student Senate operates through an established committee structure, which includes the Appropriations, Student Resources, Public Relations, Community Affairs, Education Development, and Political Action Committees.

Lanthorn

The *Lanthorn* is a weekly student newspaper that gives students an opportunity to gain experience in the production of a newspaper. The Lanthorn Office is located on the lower level of the Commons. The *Lanthorn* staff includes editorial, advertising, business, graphic art, staff writing, and staff photography positions.

Office of Student Life

Students are in class an average of 30 percent of the time during a week of college life. Students are encouraged to **MAXimize** their college experience through participation in a variety of campus experiences. Employers continue to look for new employees who have a broad base of experiences and are comfortable working with others. Historically, students who are successful have developed a plan for how they will spend the other 70 percent of their time.

The Office of Student Life creates an exciting environment for students to experience unlimited opportunities to interact with other students in addition to

Student Life

their traditional academic classroom times. This interactive environment provides a student development experience that fosters individual student growth.

Students are encouraged to participate in student organizations, attend campus events, and become involved in leadership and service projects. The Student Life Office annually registers over 150 student organizations each year. Explore your opportunities for involvement in campus life and create a plan to **MAXimize** your college experience.

The office also coordinates several major programs that promote volunteerism and leadership, including

Volunteer! GVSU

Volunteer! GVSU is a service learning project that encourages students, faculty, and staff to engage themselves in their community in order to learn about the economic, social, and political issues facing society. Students are encouraged to become involved in a community service activity that will enhance their understanding of civic responsibility. The Leadership and Volunteer Center is located on the second floor of the Kirkhof Center. Volunteer opportunities are available in the following areas:

Alternative Spring Break	Hunger/Homelessness
Best Buddies	Into the Streets
Big Brother/Big Sister	Literacy
Disabilities	Senior Citizens
Environment	Substance Abuse
Habitat for Humanity	Volunteer Corps
Health and AIDS	Youth
International Relief	

Opportunities to participate in international volunteer projects are available through Volunteer! GVSU and the Padnos International Center.

The Leadership Program

The Leadership Program is designed to assist students in developing their personal and leadership skills. The program includes a variety of experiences that assist students in their personal and professional development. The program includes workshops, conferences, retreats, individual counseling, hands-on experience, a resource center, recognition program, and the annual statewide Leadership Summit.

Campus Life Nite

Campus Life Nite, held at the beginning of fall semester, provides students with the opportunity to find out about the opportunities for involvement on campus. Student organizations and campus departments set up displays and provide information about their programs.

Traditions and Festivals

Student organizations and special committees work with professional staff in sponsoring and planning such events as Family Day, Laker Festival, Homecoming, Siblings' Weekend, Ethnic Festival, Big Ol' Bash, Black History Month, Seidman Business Week, and the President's Ball.

Student organizations and special committees work with professional staff to sponsor and plan cultural events such as

Student Life

ETHNIC FESTIVAL. An annual event of cultural appreciation. Students, faculty, and staff sponsor booths showcasing cultural cuisine, traditions, and crafts specific to a culture of their choice. The campus community enjoys good food, lively entertainment, and an exchange of ideas as the world comes to Grand Valley.

POW WOW. An annual celebration of the Native American culture. The Native American Student Association with the leadership and permission of the Ottawa Tribal Counsel shares an entire day of ceremony and trade with the campus and the general public.

SOULFEST. An annual event honoring the history of African people in the United States. Each February the Black Student Union shares with the campus a night of African cuisine that was adapted to the resources available during slavery, now known as "Soul Food." Along with a selected form of entertainment requiring audience participation, GVSU celebrates the legacy of African Americans.

ASIAN FESTIVAL. An annual celebration honoring the Asian New Year. Each February the Asian Student Union sponsors a variety of events, the most celebrated being the festival. An authentic and diverse type of Asian food is provided to festival participants. In addition, the festival coordinators provide traditional New Year dances and songs presented by professional artists.

HISPANIC HERITAGE MONTH. Each fall the Latino Student Union celebrates Latino history and culture with a variety of events. Latino students educate us on the diversity within the culture and offer campus-wide celebrations featuring traditional foods and presenting and teaching music and dance.

Student Promotions

The University Promotions Office is a student-run advertising and public relations department of the Office of Student Life, which assists student organizations. Students produce various promotional pieces to publicize upcoming campus activities.

Campus Events Information

Information on campus events can be obtained by contacting the Office of Student Life at (616) 895-2345, athletic event information (895-3800), and music, theatre, and arts information (895-3610).

Communications

WGVU-TV 35 and WGVK-TV 52, affiliated with the Public Broadcasting Service, present a variety of informative and entertaining programs including children's shows, public affairs, cultural offerings, and sports. The stations also broadcast courses for college credit and supply educational programming for thousands of elementary and secondary school children in West Michigan. For those planning careers in television, the stations offer many intern positions through which students can gain practical on-the-job training under actual broadcast conditions. The offices and studios are located in the Meijer Public Broadcast Center on the Pew campus.

WGVU 88.5 FM Grand Rapids and 95.3 FM Whitehall are National Public Radio stations licensed to the Grand Valley State University Board of Control. The stations broadcast jazz and news and information programs from NPR. A strong commitment to local news is emphasized.

Student Life

WGVU-AM 1480 Grand Rapids and **AM 850** Muskegon are National Public Radio stations also licensed to the Grand Valley State University Board of Control. The stations broadcast NPR programs and local news, talk, and information programs.

The stations provide coverage of Grand Valley State women's basketball and are strongly committed to locally produced news and talk programs.

Our television and radio stations provide employment opportunities and professional experience for students. A number of internships are available each year, and an annual GVSU tuition scholarship is awarded. The offices and studios of the stations are located in the Meijer Public Broadcast Center on the Pew campus.

The Student Code lists Grand Valley rules and regulations and outlines campus judicial processes. Persons attending Grand Valley automatically place themselves under the rules and regulations published in the *Student Code*. Infraction of these rules is dealt with by campus judiciary bodies made up of students, faculty, and staff.

Intercollegiate Athletics

Grand Valley is a member of the Great Lakes Intercollegiate Athletic Conference (GLIAC). Membership in the GLIAC includes Ashland, Ferris, Findlay, Gannon, Mercyhurst, Grand Valley, Hillsdale, Lake Superior, Northern Michigan, Northwood, Michigan Tech, Saginaw Valley, and Wayne State. Grand Valley is also a member of the National Collegiate Athletic Association (NCAA Division II).

Since the creation of the GLIAC in 1972, Grand Valley has won the President's Cup, a symbol of athletic excellence, seven times. Grand Valley's men's teams have won conference championships in the football eight times; basketball, seven; baseball, six; wrestling, seven; tennis, two; golf, two; and indoor track, two. In women's sports, Grand Valley has won championships in basketball six times; cross country, one; softball, eight; tennis, two; volleyball, six; indoor track, two; and outdoor track, one.

Scholarships are offered in all men's and women's sports.

Grand Valley competes in the following sports: **Men**—baseball, basketball, cross country, football, golf, swimming and diving, tennis, and track. **Women**—basketball, cross country, golf, soccer, softball, swimming and diving, tennis, track, and volleyball.

Housing and Food Service

Although Grand Valley does not require on-campus residency for any classification of student, the university does consider residential living to be particularly beneficial in helping all students become oriented and adjusted to college life. A university staff member living in each living center, along with resident assistants and multicultural assistants, arranges educational, diversity, and recreational programs that serve to foster and maintain pleasant living and study conditions. Two students are assigned to a room and, whenever possible, students are allowed to choose their roommates. The traditional living centers accommodate approximately 900 freshman students.

In addition, suite-style living centers accommodate 1,500 students. The centers are divided into suites consisting of two double rooms (for four students) and a shared bathroom.

Student Life

Room and board may be paid in full at the beginning of each semester or, for a service charge, in installments. All room-and-board rates are subject to change by action of the Board of Trustees.

Admission to Grand Valley does not guarantee housing of any kind, and students must make their own arrangements by contacting the Housing Office. This should be done immediately upon acceptance for admission because residence halls are filled on a first-come, first-served basis. Approximately 1,800 spaces in the residence halls and living centers are reserved for freshmen; the remaining spaces are available for upperclass students. All rooms are smoke free.

Dining Halls

The three residence halls and the living centers provide accommodations and meals for approximately 1,900 students. Four room-and-board plans are available—a 15-meal plan, a 7-plus plan, a 10-plus plan, and a declining balance plan called Board Plus. Meals are served in the Laker Dining Commons, the Kleiner Commons, the Courtyard Café, and Kirkhof Center, depending on the plan selected. At each meal the cafeteria-style service in the Laker Dining Commons provides several entrees, including a vegetarian entree, from which students may choose. Students may eat all they want and are allowed to return as often as they want to the various serving tables. A food court, featuring Taco Bell Express, Subway Express, and Bené Pizza, is located on the lower level of the Commons. In the Kleiner Commons, there is a marketplace, coffee shop, and convenience store for student dining. There is also a cash operation located on the first floor of the Kirkhof Center.

Apartments

The apartment complexes on the Allendale campus provide housing for students who have completed at least one full year of living in the residence halls or living centers or have earned a minimum of 30 semester hours. There are four-bedroom, two-bedroom, one-bedroom, double efficiency, and efficiency apartments. A university staff member living in the complex, along with resident assistants and multicultural assistants, arranges educational, diversity, and recreational programs that foster pleasant living and study conditions.

The apartments are arranged in three village-style clusters, each around a community building. Each apartment has a stove and refrigerator, beds, dresser, desks, chairs, and a sofa. Students provide other furnishings to suit their tastes. All apartments are smoke free. Rent may be paid in full at the beginning of the semester or, for a service charge, spread out in four installments.

In addition, students can choose the Secchia Hall Apartments, located on the downtown campus in Grand Rapids. One-, two-, three-, and four-bedroom units are available. Units are semi-furnished, with a couch and chair provided.

Students must make their own arrangements for the apartments. Because the units resemble privately developed apartments in every way, yet are conveniently located right on campus, they are very much in demand and students are advised to make application for rental well in advance. Applications and contract information may be obtained from the Housing Services Office located at 103 Student Services Building, telephone (616) 895-2120.

Other Housing

Other living accommodations near the campus—including rooms, apartments, houses, and mobile homes—are available at a wide variety of costs. Grand Valley

Campus Services

does not involve itself in negotiations for off-campus rentals but does provide, solely as a service to students, a listing of available housing through its Off-Campus Referral Service in the Housing Office, 103 Student Services Building. The university will not knowingly list substandard housing but it does not inspect the units available, and students are advised to exercise normal caution in making rental agreements.

Housing Application Process

New students who want to live on campus should apply to the Housing Office immediately upon acceptance for admission, because spaces are filled on a first-come, first-served basis. Summer session housing applications are accepted at any time. A \$150 deposit (subject to change) must accompany the contract materials. The deposit is a reservation/security deposit and must be paid before the beginning of each academic year. The deposit is also required for the summer session. All first-year students are encouraged to apply before March 1 for the fall semester in which they plan to attend.

Living center and apartment contracts are for the entire academic year. Apartment residents may request a 12-month contract. Students who must move in order to take part in Grand Valley-sponsored or -approved off-campus academic programs (such as field work or study abroad) will be allowed to break the contract with a refund of their deposit, providing required written notice is given.

Financial aid awarded for housing will be refunded to the sponsor, not to the student. Further information on the housing application and refund policy is contained in the housing contracts.

Campus Services

Dean of Students Office

The function of the Dean of Students Office is to maintain the quality of campus life by providing leadership and supervision for the division's staff and programs. The Dean's Office serves as an information resource and problem-solving center for students and faculty, for academic departments, and student organizations, and as an advocate for student concerns. The office provides support services for international and returning adult students; serves as a resource for gay, lesbian, and bisexual issues; coordinates the university judicial system; and represents the division to constituencies inside and outside the institution. The Dean of Students Office is located in 202 Student Services Building. Telephone: (616) 895-3585.

International Students

This program, recognizing the value and contributions of international student involvement, serves as a promoter and planner of cross-cultural exchange and activities. Support services include an extensive orientation program, cross-cultural adjustment seminars, housing assistance, host family arrangements, and immigration compliance. International student services are coordinated through the Dean of Students Office.

Returning Adult Students

The Dean of Students Office serves as a resource and referral service for returning adult students, generally defined as nontraditional students over the age of 25.

University Judiciary

The University Judiciary is responsible for informing students about their rights and responsibilities on campus. Grievance procedures and judicial referrals are available for handling students' concerns regarding university practices. Prompt and confidential investigations and resolutions of judicial cases are standard procedures. Filing a complaint does not affect a student's standing at Grand Valley.

Career Planning

The Career Planning and Counseling Center assists students in making career choices. The Center provides individual counseling sessions in which personal values, interests, abilities, and goals are assessed and then used as a basis for career exploration and decision making. Individual career counseling is available at the Allendale Campus office, the Pew Campus in Grand Rapids, and the Meijer Campus in Holland. Call (616) 895-3266 to set up an appointment. The Center also houses an extensive Career Resource Library in which up-to-date information on a wide range of careers is available. Also offered each semester are career seminars that help students plan for the future by addressing topics such as study skill techniques, planning for graduate school, and job interviewing skills. Current career information and job trends data are included in both individual career counseling sessions and career seminars through the use of DISCOVER, a computerized program. The Career Planning and Counseling Center and Library are located in 204 Student Service Building. Telephone: (616) 895-3266.

Counseling

The Counseling Center staff provides students with counseling on personal issues such as relationships, anxiety, depression, self-awareness, and substance abuse. In addition, personal development seminars are offered each semester to help

Campus Services

students make more effective decisions. Seminars and groups cover such topics as stress management, assertiveness training, relationship skills, and building self-confidence. Seminars are held in the Career Planning and Counseling Center in 204 Student Services Building. Staff members are available from 8 a.m. to 6 p.m. Monday through Thursday and from 8 a.m. to 5 p.m. on Friday at the Allendale campus office and from 10 a.m. to 7:00 p.m. on Mondays and Thursdays at the Pew campus office. To make an appointment, call (616) 895-3266.

Career Services and Graduation Employment Assistance

The Career Services Office provides extensive services to students as they prepare for post-graduation employment. The staff assists students in preparing resumes and credentials and in developing interviewing skills. Students who register with the office may take advantage of a 24/7 Web-based system to get current job listings, workshop and career event announcements, and access to employer Web links. Our Web-based system provides an electronic resume database available to employers (notifying them of scheduled appointments) and a national job listing of opportunities. The office coordinates eight annual career fairs: JobFest Career Fair (fall event for all majors and the police academy), Internship Fair, West Michigan Career Connections (business and industry), Health Career Day, Summer Job Fair, Careers in Communication Day, Career Expo (nonprofit, social services, and government) and Teacher Search. Representatives from these markets come to campus to provide information on prospective opportunities and to interview GVSU students. In addition, the office provides internship listings and assistance in locating internships for students. The Career Services Office has two locations: 206 Student Services Building, (616) 895-3311, with office hours 8 a.m. to 6 p.m. Monday through Thursday and 8 a.m. to 5 p.m. on Friday, and the downtown office at 125B DeVos Center, (616) 771-6708, with office hours 9 a.m. to 6 p.m., Monday through Wednesday and 8 a.m. to 5 p.m. on Friday. Services are also available at the Eberhard Center in downtown Grand Rapids and at the Meijer Campus in Holland by appointment. Check our Web page at www.gvsu.edu/careers.

Internships and Cooperative Education

Internships. A supervised work experience directly related to an academic discipline. The internship may be full or part time and may or may not be a paid work experience. An internship typically lasts for one semester. Internships are available in most GVSU majors.

Cooperative Education. A work training program for specified GVSU majors, including Hospitality and Tourism Management and Engineering. Co-ops are a specific type of work training experience in which students have at least two full-time or part-time supervised paid work experiences related to their major, each lasting at least one semester. The co-op programs are specifically designated as such by the academic department.

Criteria. Internships and co-ops may be initiated by the faculty advisor, the employer, the student, or the Career Services Office. The faculty advisor within each academic department is responsible for final approval of internships and co-ops to ensure that the experience meets specific departmental criteria. Students are required to comply with academic department GPA requirements regarding for internships or co-ops. The work setting must provide an opportunity for learning that is relevant to the intern's academic field. The employer provides a field supervisor and the academic department provides a faculty member to direct the

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experience. Field supervisors evaluate the student before completing the work experience. Students must complete all academic departmental requirements for internship/cooperative education experiences, including final reports. The length of the internship/co-op is determined prior to the beginning of the internship by the employer, the faculty advisor, and the student. An internship/cooperative education experience can be terminated prior to completion by the faculty advisor, field supervisor, or student. However, permission for course withdrawal is vested exclusively in the faculty.

Academic Requirements and Credits. Each academic department determines the academic requirements for internships and cooperative education experiences. Students are typically required to have completed 60 academic credits before signing up for internships or cooperative education experiences. Work hours normally equate to 150 hours (three and a third hours per week per credit for a 15-week term) for three academic credits. A maximum of 15 internship/cooperative education credits may be applied toward graduation. The nature of the academic component of an internship/cooperative education experience is defined by the academic department. A student may not use a single work experience to generate both internship/cooperative education credit and other forms of credit, e.g., independent study credit.

Employment Statistics for 1999–2000

The employment rate for GVSU graduates continues to be very high. Students can enhance their employment success by improving their written and verbal communication skills, taking supplemental computer science classes, and completing at least one internship.

Recent employment statistics—those persons employed in a job directly related to their majors—are listed for various majors at Grand Valley.

Major	Percent Employed Directly
Accounting	92%
Broadcasting	100%
Information Systems	100%
Computer Information Systems (Graduate)	100%
General Education (Graduate)	95%
Engineering	100%
Group Science	91%
Hospitality & Tourism Management	93%
Nursing	100%
Nursing (Graduate)	98%
Occupational Safety & Health Management	100%
Physician Assistant (Graduate)	93%
Physical Therapy (Graduate)	97%
Reading (Graduate)	95%
Therapeutic Recreation	90%
Special Education	97%
Special Education (Graduate)	94%
Social Work (Graduate)	97%
Taxation (Graduate)	100%

Math and Science Student Support

Math and Science Student Support (MS³) is an academic assistance and enrichment program offered in the Learning Center, 377 Padnos Hall. We offer academic

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support and problem-solving assistance for freshmen and sophomores interested in the fields of mathematics, science, and health science. Our student facilitators, successful upper-level students in biology, chemistry, computer science, geology, health science, mathematics, and physics, assist students by forming study groups, providing problem-solving assistance, and connecting students to other appropriate support services on campus. The Learning Center provides an area for both group and independent studying. The goal of MS³ is to assist students in the transition to upper-level science and mathematics.

Regional Math and Science Center

The Regional Math and Science Center, housed in the Science and Mathematics Division, serves the science and mathematics education needs of elementary and secondary schools in West Michigan. The Center focuses on providing professional development opportunities for practicing teachers and enrichment activities for pre-college students. Preservice teachers are also encouraged to participate in Center activities. The Regional Math and Science Center assists local school districts with curriculum development services that support the Michigan Curriculum Framework in Science and Mathematics. The Center's staff is available for consultation, and a resource collection of exemplary teaching materials is open to preservice teachers and local educators.

The Center is a leader in developing partnerships and collaborative programs to benefit teachers and pre-college students. GVSU and the West Michigan community provide financial and human resources to deliver programs such as the West Michigan Science Festival, Science and Math Update Seminar, Michigan Science Olympiad, Summer Science Adventure Camps, Focus on Science and Math, Super Science and Math Saturday, and Teachers in Industry.

The Robert and Mary Pew Faculty Teaching and Learning Center

The mission of the Robert and Mary Pew Faculty Teaching and Learning Center (FTLC) is to enhance student learning by supporting faculty members in their efforts to teach effectively. To that end, the FTLC sponsors a number of programs to target both specific and broad-based teaching-related issues. These programs include annual Fall and Winter Teaching Conferences, an ongoing program of workshops, mentoring for new faculty, and grant administration. The director is also available for consultation with individual faculty and academic units. The Pew Center is located in 2329 Mackinac Hall.

Robert B. Annis Water Resources Institute

The Robert B. Annis Water Resources Institute (AWRI) is a multidisciplinary research organization. The mission of the institute is to preserve, protect, and improve our natural resources.

AWRI seeks to accomplish this mission through

- Research into major questions about our water resources, including ecosystem dynamics, contaminants, hydrology, land use, water and air quality, and waste management.
- Public education for a variety of groups ranging from school children to adults.
- Outreach to ensure that decision makers are equipped with the best available knowledge on environmental issues.

The Institute operates the Lake Michigan Center on Muskegon Lake. Its facilities include classrooms, conference areas, analytical labs, research labs, dockage, and

Campus Services

ship support and storage. AWRI promotes collaborative research and educational programming and offers research space and equipment as well as ship support facilities to advance such collaborative efforts. AWRI operates its own research vessels, the *D. J. Angus* and the *W. G. Jackson*, and offers the Water Resources Outreach Education Program for K-12 schools and community groups. AWRI investigates, monitors, and evaluates the condition of major watersheds and determines land-based activities that affect water quality. The Institute has developed an advanced analytical laboratory for environmental monitoring and extensive Geographical Information System (GIS) capabilities. It also provides business and industry with the tools and techniques to implement pollution prevention strategies. AWRI has special expertise in hazardous waste management and air quality issues.

GVSU students and faculty have the opportunity to participate in AWRI activities as volunteers, paid assistants, interns, or research associates. The AWRI Office is located at 110 WRI, the Lake Michigan Center, 740 West Shoreline Drive, Muskegon, Michigan.

Affirmative Action Office

Grand Valley State University is committed to achieving the goals of equal employment and educational opportunity through affirmative action. The major responsibility of this office is to devise, implement, and direct the university's Affirmative Action program. It is also the goal of Grand Valley to maintain a positive work environment for its employees and a climate conducive to learning for its students. To this end, it is the university's policy that no member of its community may illegally harass another. Employee or student complaints regarding discrimination or harassment of any kind should be filed with the Director of Affirmative Action. For more information, contact the Affirmative Action Office, Room 147, Lake Michigan Hall, (616) 895-2242.

Minority Affairs

This office serves as an umbrella structure for a variety of programs. The programs are sponsored or co-sponsored by the Multicultural Center with various departments on campus, student organizations, and the community. The purposes are to promote the academic and social enrichment of all students on campus; assist in planning educational, social, and recreational activities for students, with an emphasis on cultural diversity; provide advising and problem solving for students; and serve as a university resource for students, faculty, and staff. Other services include faculty and staff development. The office is located in 130 Commons. Telephone: (616) 895-2177.

Multicultural Center

The purpose of the Multicultural Center is to carry out the mission of the Office of Minority Affairs. The Multicultural Center coordinates the Minority Business Education Center Program, the Minority Science Education Center Program; the Minority Teacher Education Center Program, the King/Chavez/Parks programs (graduate scholarships, College Day programs for 6th-11th graders, and the Visiting Professors Program), the Mentor Program, the Wade H. McCree Incentive Scholarship Program, and a variety of other special programs designed to create a culturally sensitive campus environment for all students. The office is located in 130 Commons. Telephone: (616) 895-2177.

Alcohol Education, Research, and Training Laboratories (ALERT Labs)

Because dangerous drinking affects us all, ALERT Labs' mission is to promote the health and safety of GVSU students, faculty, and staff—and the publics with whom they interact—through alcohol and other drug prevention programs. ALERT Labs provide students an opportunity to work with faculty, staff, and other students on projects focused on preventing the abuse and misuse of alcohol and other drugs. Students may choose to (1) serve as peer educators, making presentations and conducting experiential training in university housing units and/or classrooms; (2) assist in the development, administration, and analysis of research instruments to measure student behavior toward and perceptions of the use of alcohol and other drugs among their peers; (3) assist in the development, planning, and implementation of specific prevention projects, e.g., the Passport Social Mentoring Program; (4) develop and write grant proposals, progress reports, news releases, and scholarly articles. Students use and further develop their skills in areas such as oral communication, leadership, teamwork, networking, writing, videography, photography, and quantitative and qualitative research methods. Students interested in working for ALERT Labs or in internships are invited to call 895-2537 or to e-mail HarperN@gvsu.edu.

The Children's Center

The Grand Valley Children's Center, located on West Campus Drive, serves young children ages 2 to 12, both from the campus and the nearby community. Programs are designed to help children grow socially, psychologically, and physically. Fees range from \$2.80 per hour to \$110 for full time. Hours are from 7 a.m. to 6 p.m., Monday through Friday. Telephone: (616) 895-4146.

Bus Service

Transportation between the downtown Grand Rapids campus and the Allendale campus is easy and convenient with Grand Valley's *Campus Connector*. This shuttle service runs Monday through Friday during the fall, winter, and spring/summer semesters. The *Campus Connector* has round trips from the Pew Grand Rapids Campus downtown to the Kirkhof Center on the Allendale Campus with stops along Lake Michigan Drive. It begins at 6:55 a.m. from the downtown campus and runs every 30 minutes until the last run leaving Allendale at 10:25 p.m. The spring/summer schedule is limited. Schedules are available at the Eberhard Center Security Desk downtown, the Student Life Office in Allendale, and the Student Assistant Center (cashiers' windows) in Allendale and the DeVos Center at the Pew Campus downtown. Questions about the *Campus Connector* should be directed to the Pew Campus Operations Office at (616) 771-6700.

Student Employment

The Student Employment Office assists students in finding jobs both on and off campus. The office's Web-based electronic job board is available to all students who are eligible to enroll at Grand Valley. This program allows students to search for jobs from any location, on or off campus, where they have access to the Internet. The program posts both work-study and non-work-study jobs. Many opportunities exist in university departments, such as working at the public television station, the computer labs, the library, the food service, the golf course, and the Fieldhouse, among others. Most on-campus jobs require students to work

Campus Services

10–15 hours per week. Off-campus jobs require students to work 10–25 hours per week. Off-campus jobs are available in west Michigan, including the Grand Rapids area. The Student Employment Office is located at 101 Student Services Building. Telephone: (616) 895-3238. Web address: www.gvsu.edu (select Student Employment on the Quick Find list to access the electronic job board).

Campus Ministry

The interdenominational Campus Ministry Council offers a ministry to the university community through worship services, Bible study groups, speakers, retreats, discussions, service opportunities, and pastoral counseling. Weekly services include Sunday morning worship at 9:30 and 11 a.m. and Catholic Mass at 4:30 p.m. The Campus Ministry Offices are located in the Cook-DeWitt Center. Telephone: (616) 895-3111 or (616) 895-3112.

The Bookstore

Textbooks for classes taught at Grand Valley State University are available through University Bookstore at several locations. Students attending classes on the Allendale campus will find their textbooks and required supplies at UBS on first floor of the Kirkhof Center. In addition to the Afterwards Café at this location, the store offers a large selection of GVSU-imprinted clothing and gifts, greeting cards, computer software, school and art supplies, and general reading books.

UBS—Allendale is open 8 a.m. to 6 p.m., Monday through Thursday, 8 a.m. to 5 p.m. on Friday, and 10 a.m. to 5 p.m. on Saturday. Hours are extended for the first and last weeks of the semester. Telephone: (616) 895-2450.

Students who attend classes on the Grand Rapids campus should purchase their textbooks at University Bookstore adjacent to the plaza on the first floor of the DeVos Center. The store also provides textbooks for students who attend classes at other Michigan locations, including Petoskey, Sault Ste. Marie, and Scottville. Mail order is available. Telephone: (616) 771-6602.

Health, Recreation, and Wellness

Health, Recreation, and Wellness (HRW) exists to encourage the well-being of the Grand Valley State University campus community through physical activity, health and wellness services, and recreation opportunities. HRW provides informal recreation as well as structured programs to promote fitness and healthy lifestyles.

Health Services

The Campus Health Center at Grand Valley is located on the Allendale campus at 163 Fieldhouse. For members of the campus community living and/or working at the downtown Pew Campus, access to the health center is provided through frequent shuttle bus service between the two campuses. The purpose of the center is to provide primary health care to students, faculty, staff, and their families. Services include, but are not limited to, allergy injections, immunizations, physicals, screenings, health care counseling and contraceptive services, and the treatment of short-term illnesses and/or injuries as well as the management of long-term health problems/illness.

The Campus Health Center is staffed by two full-time, certified nurse practitioners and nurses. It is open Monday through Friday from 9 a.m. to 5 p.m. One nurse practitioner is on call 24 hours a day, seven days a week.

Campus Services

Grand Valley students may subscribe to a medical insurance plan offered through a commercial insurance company. Dependent and maternity benefits are available in the regular sickness and accident policy. The Center will bill this insurance company or any other one that provides coverage for the individual receiving services. In addition, services can be provided on a self-pay basis.

Recreation and Wellness Services

Recreation and Wellness Services include Campus Wellness, Intramural Sports, and Laker Aerobics.

Campus Wellness includes a wellness center located on the lower level of the Recreation Center that provides a variety of fitness and wellness services to GVSU faculty, staff, and students. Services include health risk appraisals, health screenings, body composition analyses, fitness appraisals, exercise programming, equipment orientations, personal training, nutritional counseling, and massage therapy. In addition, Campus Wellness provides fitness and recreational programming to the campus community, including fitness challenges, various "how to" recreational sports clinics, and personal self-defense workshops.

Intramural Sports is a multifaceted recreational program, offering male, female, and co-ed competition in more than 20 different sports and activities, including basketball, badminton, bowling, racquetball, soccer, softball, roller hockey, tennis, and volleyball. These competitive programs may be individual, dual, or team-oriented. Intramural Sports also hosts various special events throughout the year including a homerun-hitting derby, free-throw shooting contest, and March Madness.

The Laker Aerobics Program provides a variety of group exercise classes designed to improve cardiovascular endurance, muscular fitness, and flexibility. More than 30 classes are scheduled throughout the week and are free to GVSU students, faculty, and staff. Class formats include Ab Lab, Cardio Kickboxing, Hi-Lo Aerobics, Step Aerobics, Power Sculpting Interval Classes, Resist-a-ball, Totally Toned, and Water Combo.

Parking

Approximately 7,300 parking spaces are available in eleven lots on the Allendale campus for students who wish to drive their cars to Grand Valley. Freshmen, as well as upperclass students living in the residence halls and living centers, are welcome to have their vehicles on campus. However, they must purchase a parking permit for reserved resident parking lots from the Department of Public Safety Services.

Department of Public Safety

The Department of Public Safety is responsible for enforcing state laws as well as all university rules and regulations and for maintaining a safe and secure environment for the campus community. Department personnel are trained in first aid and other emergency procedures. They are deputized by the Ottawa County Sheriff with full arrest powers. The department also maintains a Lost and Found Bureau and a Parking Violations Bureau and approves drivers for operating state vehicles.

The department is located in the Service Building at the north end of campus. Telephone (616) 895-3255.

Admission to Grand Valley

Undergraduate Admission

Freshman Applicants

Grand Valley State University welcomes qualified students to submit their applications. Admission decisions are selective based on the secondary school record, grades earned as well as courses selected, the personal data submitted on the application, and ACT or SAT results.

Freshmen are normally expected to be graduates of accredited high schools or preparatory schools. A strong high school background in basic academic subjects is important in a student's preparation for college study. The admission requirements are designed to ensure that students who are admitted to Grand Valley State University have the ability to successfully complete academic work and fully use the educational opportunities available.

The college preparatory program should include four units of English, with one composition course; two units of science; three units of mathematics, with two years of algebra; three units of social sciences; and seven units of electives. These electives might include a fourth year of math, two years of a foreign language, two years of fine arts, or a computer literacy course.

A total of 20 units is required (a unit is the satisfactory completion of one year's work). Exceptions to these requirements will be considered in relation to other credentials presented.

Applicants will be reviewed using a combination of high school courses completed, cumulative grade point average, standardized test scores, grade point trend, rank in class, and other factors. Results of the ACT (American College Test) or SAT (Scholastic Aptitude Test) will be required before an admission decision is rendered unless the applicant has graduated from high school three or more years previously.

The requirement of high school graduation may be waived for adults, provided there is evidence that they are likely to be successful in college. This evidence will in most cases take the form of the test of General Educational Development (GED).

Students are encouraged to apply early in the fall of their senior year. Assistance in the admissions process at Grand Valley can be obtained from high school counseling offices. The admissions counseling staff welcomes the opportunity to interview prospective students. Appointments for interviews should be arranged in advance by calling the Admissions Office at (616) 895-2025 or toll free 1-800-748-0246, or by writing

Admissions Office
300 Student Services Building
Grand Valley State University
Allendale, MI 49401-9403

To be considered for freshman admission, you must submit the following items:

- completed undergraduate application.
- \$20 nonrefundable application fee.
- official high school transcript.
- official results of the ACT or SAT.

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Applications will be reviewed as soon as all information has arrived, and the applicant can expect a decision shortly thereafter. The Admissions Office may withhold a decision for additional information or for further testing. Applicants will be notified to provide any additional information. Applications for admission must be complete at least 30 days before the final day for registration for fall and winter semester enrollment. However, admission to any semester is subject to earlier closing without notice.

All documents and supporting data required for admission become the property of Grand Valley State University and will not be returned to the applicant.

Transfer Applicants

A transfer applicant is someone who has attended another college or university. The applicant will be evaluated on previous coursework at the college level. High school performance will also be reviewed for those who have earned fewer than 30 semester hours (45 quarter hours) of college-level coursework.

To be considered for transfer admission, you must submit the following:

- completed undergraduate application.
- \$20 nonrefundable application fee.
- Official transcripts from *all* previous colleges (transcripts must be sent directly from the colleges to the Grand Valley Admissions Office).

Applicants who have earned fewer than 30 semester hours (45 quarter hours) at the time of application must also submit the following:

- official high school transcript.
- official results of ACT.

Applications will be reviewed as soon as all information has arrived, and the applicant can expect a decision shortly thereafter. The Admissions Office may withhold a decision for additional information or for further testing. Applicants will be notified to provide any additional information. Applications for admission must be complete at least 30 days before the final day for registration for fall and winter semester enrollment. However, admission to any semester is subject to earlier closing without notice.

All documents and supporting data required for admission become the property of Grand Valley State University and will not be returned to the applicant.

Transfer students must complete a minimum of twelve hours in the unit conferring the major (six for the minor). Some programs have higher requirements; transfer students should consult descriptions of specific major requirements.

Transfer of Credit

Grand Valley makes every effort to transfer credit for academic work completed at other institutions. In general, courses completed with a D grade at an institution accredited by one of the Regional Accrediting Commissions will transfer when the overall GPA of all previous work, as calculated by Grand Valley, is C or better. Transfer credit is typically determined by the offering of an equivalent course at Grand Valley. Limited transfer credit may be awarded from technical or terminal associate degree programs. Credit from nonaccredited colleges may, under special circumstances, be granted if it is germane to a student's program. Approval for such credit must be given by the Dean of Academic Resources and Special Programs. Such credit will be validated after 15 semester hours of satisfactory work have been completed at GVSU (2.0 GPA or higher). Transfer

Admission to Grand Valley

credit will be granted only to those students admitted as degree-seeking. Transfer credit may be awarded for correspondence courses taken through a regionally accredited institution.

Transfer students admitted as degree-seeking will receive a Transfer Credit Statement/Degree Audit, which indicates how coursework completed at other colleges and universities will transfer to Grand Valley on a course-by-course basis.

Total credits transferred are recorded on the student's academic record and will apply toward Grand Valley degree requirements; grades are not transferred.

For information governing the use of transfer credit to fulfill degree requirements, see the General Academic Regulations section of this catalog.

Transfers from Michigan Community Colleges

Grand Valley State University is a member of the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO), which has formulated an agreement between two-year and four-year institutions.

Students who transfer to Grand Valley with the MACRAO approved associate of arts or science degree from a Michigan public community college have satisfied the Foundation Categories of the General Education Program, the Writing 150 Basic Skills requirement, and one Supplemental Writing Skills (SWS) course. Transfer students with a MACRAO are required to complete the following Basic Skills requirements: demonstrate proficiency in Mathematics (MTH 110); fulfill the junior-level Writing requirement (a satisfactory score on the junior-level assessment essay or a grade of C or better in Writing 305); one SWS course in their major or division. In addition, transfer students with a MACRAO must also fulfill the following general education requirements: the two-course Cultural Emphasis requirement; and one three-course theme. For specific course information, please refer to the General Education section of this catalog.

Concurrent Enrollment with Community Colleges

Concurrent enrollment allows students at both Grand Valley State University and community colleges to make full use of the variety of courses offered by both institutions. Through concurrent enrollment, students have more scheduling options, more choice of course locations, and many more courses available. Students may take courses at both institutions simultaneously or alternate enrollment between them. Financial aid may also be available to students who qualify.

Students must be admitted to both institutions. Please refer to the Transfer Applicant or Nondegree-Seeking Applicant section of this catalog for specific admissions requirements to Grand Valley State University.

Nondegree-Seeking Applicants

The nondegree-seeking admission status is designed for persons who, at the time of admission, are not interested in obtaining a degree from Grand Valley.

Application requirements and limitations:

- graduation from high school two or more years previous to their first enrollment.
- guest students who are eligible to re-enroll at their home institution.
- a maximum of 30 semester hours earned as a nondegree-seeking undergraduate student may apply toward a Grand Valley degree program.
- completed application/enrollment form or, when appropriate, the official Guest Application.

High School Scholars/Dual Enrollment Program

Some high school students may be eligible for concurrent enrollment in Grand Valley courses. Qualification and admission will be based on the following factors:

- completed nondegree-seeking application.
- official high school transcript.
- an overall GPA of 3.0 or above in high school coursework.
- official results of ACT or SAT if available.
- written permission from the student's high school principal or counselor.
- limitation of six hours per semester.
- permission from the Admissions Office must be obtained for future semesters at Grand Valley while still in high school. Faculty advisement is strongly encouraged.
- students qualifying for dual enrollment assistance from their high school must present a dual enrollment authorization form prior to enrollment.

A decision on admission will be made when all information has arrived. The Admissions Office may withhold a decision for further information or until an interview has been held. Applicants will be notified to submit any additional information.

Honors Program

The Grand Valley State University Honors Program is intended for students who, in their previous academic pursuits, have demonstrated a distinctly high level of intelligence, motivation, creativity, and academic achievement. The program provides its students with special academic opportunities and challenges.

High school students admitted to Grand Valley State University will be invited to join the Honors Program if they have a 3.5 or better high school GPA and an ACT score of at least 28.

Transfer students who wish to enter the Honors Program may apply for admission if they have a 3.5 or better college GPA. Applicants should contact the director of the Honors Program.

For more information about the Honors Program, consult the Honors Program section in this catalog.

International Students

Grand Valley welcomes international students wishing to study at our campus. In 2000–2001, students from 37 nations were enrolled at GVSU.

To be considered for admission the student must submit the following items:

- completed International Admission Application.
- \$20 nonrefundable application fee.
- evidence of English language proficiency verified by the Test of English as a Foreign Language (TOEFL) scores or CELT (Comprehensive English Language Test) scores.
- the Declaration and Certification of Finances.
- original or certified true copies of all certificates and grade reports of secondary and postsecondary work. If the credentials are not in English, they must be accompanied by an English translation.
- Applicants for whom English is a second language or whose past academic experiences have been at non-English speaking institutions will be classified as international students, regardless of visa or residency status.

Admission to Grand Valley

International student applicants should be able to communicate well in English. The following minimum scores are expected: TOEFL 550, or computer-based TOEFL 213, or CELT 85.

Applicants must demonstrate financial independence before they can be admitted. Generally, financial aid is not available during an international student's first year of enrollment at GVSU. An acceptance letter and an I-20 form will be issued after the applicant has been accepted. International students are required to have all application materials in to the Admissions Office by the deadline of June 1 for fall admission.

All documents and supporting data required for admission become the property of Grand Valley State University and will not be returned to the applicant.

Credit by Examination

In some cases students may be granted advanced placement or receive college credit by examination. Tests are available to determine levels of competence in certain subject areas. Grand Valley encourages prospective students to investigate their use.

Additional information on credit by examination can be found in the General Academic Regulations section of this catalog.

Special Entrance Requirements for Certain Programs

The standards for entry into the following majors and programs exceed the minimum requirements for admission to Grand Valley. Students must fulfill the additional requirements before they may declare a major in any of these noted areas. Please refer to the department entries for admission requirements and application deadlines.

Athletic Training	Liberal Studies
Business	Music
Clinical Laboratory Sciences	Nursing
Computer Science and Information Systems	Occupational Therapy (M.S.)
Education	Physical Therapy (M.S.)
Engineering	Physician Assistant Studies (P.A.S.)
Film and Video Production	Police Academy (MLEOTC)
Graphic Design	Social Work
	Therapeutic Recreation

Appeal of Admissions Decisions—Undergraduate

Applicants denied admission may appeal that decision in writing to the Director of Admissions within 30 days of notification. It is important to note that an appeal will be heard only when new or additional information is present.

Graduate Admission

The graduate programs at Grand Valley State University are designed for mature students who, as a result of their work experience or undergraduate education, are interested in expanding or continuing their professional education. Applicants should become familiar with entrance requirements well before their intended admission date. To be assured of admission consideration, applicants should

Admission to Grand Valley

submit applications and all supporting documents one to two months before the semester they wish to enter.

All graduate students at Grand Valley State University must be affiliated with a program or school and will be classified as either degree-seeking or nondegree-seeking.

Application Procedure for Degree-seeking Students

Students who meet the following university requirements and the additional requirements of their chosen program will be granted degree-seeking status:

1. A baccalaureate degree from an accredited institution of higher education.
2. Submission of all required admission materials, including:
 - a. Completed graduate application for admission.
 - b. \$20 nonrefundable application fee (unless you have previously applied to GVSU).
 - c. Official copies of transcripts from all institutions of higher education previously attended. **Transcripts must be sent from those institutions directly to the GVSU Admissions Office.**
 - d. Unless otherwise indicated, applications should be submitted two months prior to the semester in which you wish to enroll.
 - e. Scores from either the TOEFL (Test of English as a Foreign Language) or CELT (Comprehensive English Language Test) by international students whose native language is not English.
3. Additional requirements and application procedures are listed under each master's degree program.

Nondegree-Seeking Status

Students with a baccalaureate degree who are not seeking a graduate degree or have not completed all of the admissions requirements of their chosen program may be granted nondegree-seeking status. A maximum of nine semester credits may be earned at Grand Valley State University as a nondegree-seeking student for some graduate programs. Some programs have more restrictive guidelines. Students should check specific program descriptions for details.

These credits may be considered for transfer into a graduate degree program if the student is granted permission to change his or her status from nondegree to degree-seeking. Students who have completed nine semester hours and wish to continue their nondegree affiliation with the university must complete and sign a plan of study that identifies their projected academic program of professional development. Completion of a planned program contract is important because registration beyond nine credits for nondegree-seeking students without a planned program may be blocked.

Changing Status from Nondegree to Degree Seeking

You may seek a change in status by:

1. Submitting all required admission materials and
2. Submitting a degree-seeking application form to the Admissions Office.

Appeal of Admissions Decisions

Admissions decisions may be appealed to the director of the program and then to the dean of the division.

Admission to Grand Valley

Second Master's Degree

Under certain circumstances a student may earn two master's degrees. Students who are considering such a plan should note the following information:

1. Meet all specified requirements for both degree programs.
2. Complete a minimum of 21 semester hours in residence at Grand Valley beyond the requirements for the first Grand Valley degree.
3. In keeping with the residency requirement, a student with a graduate degree from another institution with appropriate regional accreditation must earn a minimum of 24 semester hours in residence at Grand Valley. Note that the minimum total hours required for the second degree must be satisfied either through approved transfer hours or additional coursework at Grand Valley.
4. The time limit to satisfy degree requirements and the time limit on transfer of credits are applicable to the second master's degree.
5. Students who meet separate emphasis area requirements within a program but not the additional residence requirements for two degrees may have both emphasis areas certified and recorded on their academic record.

International Students

Grand Valley welcomes the interest of foreign students wishing to study on our campus. To be considered for admission, you must submit the following items:

1. Completed International Admission Application.
2. \$20 nonrefundable application fee.
3. Evidence of English language proficiency verified by the Test of English as a Foreign Language (TOEFL) scores or CELT (Comprehensive English Language Test) scores.
4. The Declaration and Certification of Finances.
5. Original or certified true copies of all certificates and grade reports of secondary and post-secondary work. If the credentials are not in English, they must be accompanied by an English translation.

Admission to Grand Valley

6. Applicants for whom English is a second language or whose past academic experiences have been at non-English-speaking institutions will be classified as international students, regardless of visa or residency status.

Applicants must be able to communicate well in English. The following minimum scores are expected: TOEFL 550, computer-based TOEFL 213, or CELT 85. Financial independence must be demonstrated prior to admission. Applicants must be aware that financial aid dollars are *extremely* limited for international students. An acceptance letter and an I-20 form will be issued after the applicant has been accepted. International students are required to have all application materials in to the Admissions Office by the deadline date of June 1 for fall admission.

Transfer of Credit

Graduate credit from institutions with appropriate regional accreditation may be considered for transfer to a degree program at Grand Valley State University. Only coursework completed in the five years prior to application will be considered for transfer. Transfer credits must apply directly to the student's program as determined by the director of the graduate program. It is the student's responsibility to petition the program director for consideration of any transfer credit. Only courses with a grade of B (3.0) or above will be considered for transfer. Correspondence courses will not transfer into graduate programs at Grand Valley State University.

Petition to Return

Following a voluntary absence of two or more consecutive semesters or sessions, a graduate student must complete a Petition to Return form. This form serves to update the student's demographic record. Graduate students are reminded that following a voluntary absence of 24 consecutive months they must follow the catalog requirements in effect at the time of their return to Grand Valley. Such students should meet with their program advisor to revise their study plan.

Graduate students who wish to return to Grand Valley following an academic dismissal must submit a written appeal to the dean of the appropriate division.

Graduate students who wish to change to a different program within Grand Valley must complete the application process for that program. No additional application fee is required, and the applicant need not supply duplicate copies of official transcripts already on file.

Dual Credit

Undergraduate students at Grand Valley State University may register concurrently for graduate credit prior to completing a baccalaureate degree. To do so, students must have earned a minimum of 85 semester hours and have a 3.0 grade point average or be admitted to a graduate degree program. Students wishing to apply for concurrent enrollment must obtain a Dual Credit Request Form from the Records Office on the Allendale campus and indicate on the form that they are currently (1) an undergraduate student requesting the designation of a graduate course as part of the undergraduate program (this course may not be used as part of some future graduate program at Grand Valley), or (2) an undergraduate student requesting enrollment in a graduate course to be designated as part of a future program.

The completed form must be submitted to the Records Office on the Allendale campus by the close of business on the fifth day of the semester in which the student wishes to enroll in the course.

Costs and Financial Aid

Tuition

Tuition is based on the classification of the student and the course: undergraduate or graduate, lower or upper division, resident or nonresident.*

Tuition for lower division (0–54 credits) undergraduate students who are Michigan residents taking anywhere from 12 to 16 credit hours is the same, a total of \$2,136 per semester. Tuition is \$188 per credit hour for fewer than 12 credits and for each credit over 16. Tuition for upper division (55 or more credits) undergraduate students who are Michigan residents taking anywhere from 12 to 16 credit hours is the same, a total of \$2,215 per semester. Tuition is \$195 per credit hour for fewer than 12 credits and for each credit over 16. Tuition for graduate resident students is \$202 per credit hour for graduate courses, \$195 for undergraduate courses.

For lower division (0–54 credits) nonresident undergraduate students, tuition is \$4,622 total per semester for anywhere from 12 to 16 credits and \$395 per credit for fewer than 12 credits and for each credit over 16. For upper division (55 or more credits) nonresident undergraduate students, tuition is \$4,778 total per semester for anywhere from 12 to 16 credits and \$408 per credit for fewer than 12 credits and for each credit over 16. Nonresident graduate tuition is \$437 per credit hour for graduate courses, \$408 for undergraduate courses.

The above tuition rates apply to all students registering for credit courses, including guests, visitors, and all categories of students not pursuing a degree at Grand Valley State University. Rates for noncredit courses in special programs apart from the regular university curriculum are published with the announcements of such programs.

Residency

Because students normally come to Grand Valley for the primary or sole purpose of attending the university rather than to establish a home in Michigan, nonresident students will continue to be classified as such throughout their attendance unless they demonstrate that they have permanently abandoned their previous home and permanently established Michigan residency. See Michigan Residence Requirements for Grand Valley's policy for determining residency.

Fees

Late registration (allowed only in the first five days of the semester) requires a \$50 late fee. Fees for resident and nonresident are the same.

Additional fees in particular courses may be required to cover the cost of field trips or the use of off-campus facilities. Fees may also be charged for administering standardized tests.

Changes in Tuition and Fees

Rates of tuition and fees are those in effect at the time of publication of this catalog. They are subject to change at any time by Grand Valley's Board of Trustees.

*Tuition rates and fees are set by the Board of Trustees. The rates listed here are for the 2000–2001 academic year.

Tuition and Fees Refund Policy

Students who reduce their number of credit hours or withdraw from Grand Valley may be eligible, upon application to the Office of the Registrar, to receive a refund of tuition. The amount of refund will be based on the following schedule:

1. Students withdrawing before the start of the semester and during the first week of classes are eligible for a full (100 percent) refund of the applicable tuition paid. All financial aid awarded to the student will be canceled and all financial aid received must be repaid.
2. Students withdrawing during the second week of classes in a shortened session (summer) and in the second, third, and fourth weeks of classes in the full session are eligible for a 75 percent refund of the applicable tuition paid.
3. Students withdrawing after the second week of classes in the shortened session (summer) and the fourth week of classes in the full session are not eligible for a refund.
4. Students who withdraw completely and are eligible for a 100 percent refund of tuition will be eligible for a full refund of their registration and other mandatory fees. All financial aid awarded to the student will be canceled and all financial aid received must be repaid. Students withdrawing completely during the 75 percent refund period will be eligible for a 75 percent refund of their registration and other mandatory fees. There will be no refund of these fees after the last date for a 75 percent refund as published in the Schedule of Classes.
5. Students who drop to less than full time during the 100 percent refund period will be eligible for a full refund of their student life fee. Students dropping to less than full time during the 75 percent refund period will be eligible for a 75 percent refund of their student life fee. There will be no refund of this fee after the last date for a 75 percent refund as published in the Schedule of Classes.
6. To comply with Federal regulations, student recipients of Federal Title IV financial assistance who are in their first semester of attendance and who

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completely withdraw during the first nine weeks of a regular semester, the first three weeks of a six-week session, or the first seven weeks of a 12-week session shall be issued a pro-rata refund of all institutional charges minus a \$100 administrative fee for that period.

A specific schedule of refunds, with qualifying dates, is published each semester in Grand Valley's official Schedule of Classes.

The refund is based on the date of receipt of the completed class drop or withdrawal form in the Office of the Registrar. If a course does not begin during the first week of the start of the semester, refunds will be based on the date of the first class meeting.

When Grand Valley State University cancels a course or when it is determined that a student has registered for a course he or she was not eligible to take, a full refund will be made regardless of the date.

In cases in which financial aid was used to pay for all or part of tuition, the refund will be used to repay the sponsor first and then the student, when appropriate. Refer to the "Refunds and Repayment of Financial Aid" section in the catalog for details of this procedure.

Appeals because of extraordinary circumstances are reviewed by the Tuition Refund Appeals Committee twice each semester. Appeal application forms are available at the Registrar's Office and must be filed with that office. Please note that appeals will not be considered unless the class under appeal has been dropped officially with the registrar.

Financial Aid for Undergraduate Students

At Grand Valley State University more than 70 percent of full-time students receive some kind of financial aid. The average award is approximately \$5,900. Thus, for many students the actual cost of attending Grand Valley as a resident student is substantially less than the total cost of tuition, room, and board.

Even though Grand Valley believes that the responsibility for financing a college education rests with students and their families, large amounts of aid are available. All forms of financial aid are viewed as supplemental to the total family effort. A student who receives a scholarship or grant should be willing to borrow and work for additional money needed. In fact, because no one program can cover all college expenses, aid programs are usually combined in "packages" suited to the student's needs. This means that students receive aid in a variety of forms. Rarely would a student receive all one type of aid—for example, a grant—but rather would receive a mixture of grant, scholarship, job, and loan.

To be considered for aid, a student must be admitted as a degree-seeking student and be enrolled for 12 credit hours or more per semester (15 credit hours per semester is considered a normal load). Exceptions are made for part-time students. Students who receive scholarships based on merit are required to average 15 credit hours per semester.

The graduation rate, as defined in the federal IPEDS Graduation Rate Survey, for students entering Grand Valley State University as new, full-time degree-seeking freshmen during the fall of 1993 was 46 percent. The cohort includes students who may have stopped, dropped out, reduced loads to become part-time students, or transferred to other institutions. The students in this cohort who remained at Grand Valley as full-time students for the first four complete academic years had a graduation rate of 87 percent.

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To maintain and renew aid, students must make satisfactory academic progress. For most federal and state aid, need must be demonstrated by submitting a Free Application for Federal Student Aid (FAFSA). Forms are available from your local high school or they may be obtained by contacting the Office of Financial Aid, Grand Valley State University, Allendale, Michigan 49401-9403. Telephone: 616-895-3234.

Application Procedure

All financial aid is awarded for the academic year beginning with the fall semester. Students must reapply for financial aid every year.

We encourage you to apply well before the fall semester because limited funds are available for awards made after the start of the academic year (see application dates in the next section). If you are a degree-seeking student you are eligible to apply for financial assistance. Most aid is awarded to students attending at least half time (six or more credit hours), although students attending less than half time may be considered for the Federal Pell Grant Program. Continuing education students (part-time, nondegree-seeking students) are not eligible for most financial aid; however, they may apply for and receive institutional tuition loans. Financial aid for international students is extremely limited.

Additional aid may be awarded for the spring/summer session depending on the availability of funds. You must enroll at least half time to receive financial aid for the spring/summer session. If you are seeking a spring/summer session award, you should indicate that on your application for funds.

If you wish to be considered for financial aid, please refer to the deadline dates listed below and follow the four basic steps outlined here.

1. If you are a new student, you must submit application forms for admission to Grand Valley. It is recommended that you apply for admission by January 1 for the fall semester.
2. A Free Application for Federal Student Aid (FAFSA) form must be completed by you and/or your parents and/or your spouse. You should fill out the form completely and accurately, indicating Grand Valley as your choice of schools. Do not leave blank spaces. Indicate zeros in situations that do not apply. **There is no other separate application form required for financial aid.**
3. In some cases you and your parent or guardian will be required to submit Federal 1040 forms to verify the information submitted on your application. If you are a new transfer student, you may be required to have a financial aid transcript sent from the colleges you have attended.

We may request additional information if, upon reviewing data you have presented, we believe further clarification of your financial situation is needed. Such additional information may include information about your household size, assets, or income.

Application Dates to Remember

We encourage you to apply before the due dates to receive full consideration for all types of financial aid programs. Late awards are based on the availability of funds.

If you plan to enroll for the fall semester, the following dates are important:

February 1: Freshman and community college transfer applicants must apply for admission to be considered for the major scholarship programs offered by Grand Valley.

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February 15: Entering freshman, graduate, and transfer students: submit a completed Free Application for Federal Student Aid to the appropriate agency listed on the form.

February 15: Renewal aid applicants and returning upperclass and graduate students: submit a completed Free Application for Federal Student Aid to the appropriate agency listed on the form.

April 15: Entering freshman, graduate, and transfer students are notified by mail of their financial aid award.

May 1: Spring/summer session students are notified by mail of their financial aid award.

July 1: Renewal aid applicants and returning upperclass and graduate students are notified by mail of their financial aid award.

If you plan to enroll beginning with the winter semester, the following dates are important:

October 1: Entering freshman, graduate, transfer, renewal aid applicants, and upperclass students: submit a completed Free Application for Federal Student Aid to the appropriate agency listed on the form for winter semester aid.

December 1: Students are notified by mail of their awards.

If you plan to enroll beginning with the spring/summer session, the following dates are important:

February 15: Entering freshman, graduate, transfer, renewal aid applicants, and upperclass students: submit a completed Free Application for Federal Student Aid to the appropriate agency listed on the form for spring/summer session aid.

May 1: Students are notified by mail of their awards.

College Costs and Student Budgets

Before applying for financial aid, students and parents should assess all of the costs of attending Grand Valley. The following tables indicate the typical nine-month (two-semester) academic year expenses for single residents (living anywhere on or off campus except with parents or relatives) and commuting students (living with parents or relatives).

Residential Students

Tuition and fees* (Michigan resident)	\$4272
Books and supplies	600
Personal and miscellaneous	600
Room and board*	5380
Transportation	400
Total	\$11,252

Commuting Students (Michigan resident)

Tuition and fees*	\$4,272
Books and supplies	600
Personal and miscellaneous	600
Food (lunches)	600
Transportation	900
Total	\$6,972

*Tuition and fees and room and board charges are determined by the Grand Valley State University Board of Control. The rates listed here are for the 2000–2001 academic year.

Out-of-State Students

Out-of-state tuition* for lower division (0–54 credits) students is \$4,622 per semester for 12–16 credit hours, \$395 per credit hour for fewer than 12 credits and more than 16. Additional transportation costs are usually necessary. Out-of-state tuition for upper-division (55 or more) students is \$4,778 per semester for 12 to 16 credit hours, \$390 per credit hour for fewer than 12 credits and more than 16.

Self-supporting Students

Grand Valley generally uses the guidelines set by the U.S. Office of Education to determine if a student is self-supporting. A self-supporting student is one who has attained age 24. A student who is under 24 is considered to be dependent unless he or she (1) is an orphan, ward of the court, or a veteran, (2) is a graduate student or married student, or (3) has legal dependents other than a spouse. The Office of Financial Aid may use professional judgment to determine a student's dependency status apart from the above definition. Students may be requested to provide supporting documentation.

Students who apply for financial aid and are married and/or have dependents have varying expenses. However, only those costs attributable to actual attendance as specified above will be considered in determining the type and amount of aid the student is eligible to receive.

Financial Aid for Part-Time Students

If your family or other responsibilities do not allow full-time attendance, you may be considered for financial aid on an exception basis if you are enrolled part time (normally at least six credit hours). As a part-time student, you should follow the normal application procedures. Students taking fewer than six credit hours may be eligible for the Federal Pell Grant and the Michigan Adult Part-Time (see section on Programs Based on Need).

Financial Aid for Graduate Students

Three types of financial aid are available to degree-seeking graduate students enrolled for at least five credit hours at Grand Valley:

1. Federal College Work-Study Program: The majority of campus jobs are funded under this program (see following program description).
2. Student Loans: Federal Direct Student Loans of up to \$8,500 per academic year or Federal Perkins Loans up to \$1,500 per academic year are available (see following program description).
3. Assistantships: Funds may be available in special categories. You should consult your program director for information.

If you are a graduate, you should follow normal financial aid application procedures.

Financial Aid for Study Abroad

Financial aid is available to assist in financing the cost of approved study abroad programs. Students may be eligible for assistance for Grand Valley summer programs, as well as academic-year and one-semester programs through exchanges and other individualized programs.

*Tuition and fees and room and board charges are determined by the Grand Valley State University Board of Trustees. The rates listed here are for the 1999–2000 academic year.

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Students participating in study abroad programs receive financial aid in the amount they normally would receive if remaining on campus. However, students are generally able to borrow loan funds to cover the additional costs. Limited scholarships and grants are available for some programs.

Students interested in a study abroad experience must contact the Padnos International Center regarding available program options and are encouraged to meet with a financial aid counselor to discuss the availability of financial aid early in the planning process.

Financial Aid Programs

At Grand Valley, financial aid includes scholarships, grants, loans, and student employment. These aids are usually combined in a “package” to offer you flexibility in meeting your educational costs. This assumes that a combination of the various types of aid—that is, loans, jobs, scholarships, and grants—is put together for an award rather than just one of these sources. If you wish to apply for or renew financial assistance, you should review the following information on the types of available financial aid.

1. **Programs not based on need.** Each program requires different application procedures. Eligibility is determined jointly by the Financial Aid Office and the agency or department funding the program.
2. **Programs based on need.** You are required to complete the FAFSA (Free Application for Federal Student Aid). Eligibility is determined by the Financial Aid Office.
3. **Special programs.** These require students to apply directly to the agency or department responsible for determining eligibility and funding.

Programs Not Based on Need

Grants and Scholarships

Scholarship eligibility criteria indicated below are for students entering in the 2001–2002 academic year and may change. GVSU offers an outstanding merit-based scholarship program. We determine initial eligibility for these scholarships at the time of admission, although final award decisions and the amount of most scholarships are made by the scholarship committee after the student has completed all required application materials. To be considered for a scholarship, students must minimally have a complete application for admission in to the Admissions Office by February 1 for the following fall semester. Complete applications consist of an application for admission, official transcripts, results of the ACT test, and a \$20 application fee. Additional supportive materials may be required, such as an essay, interview, or Free Application for Federal Student Aid form. The additional supportive materials for scholarship consideration must be received by February 15. There are three levels of merit-based scholarships, described below.

1. **Awards of Distinction.** This group of scholarships includes Grand Valley’s highest merit-based scholarships, ones that many students aspire to receive. They generally require high academic achievement and top scores on the ACT. Other factors taken into consideration in determining the amount of the scholarships in this category include rank in class, strength of high school curriculum, minority status, intended major, and extracurricular activities.

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Additional amounts of up to \$2,000 are awarded to students who are National Merit Finalists.

- a. **Presidential Scholarships.** To be considered for a Presidential Scholarship you must have a 3.8 high school GPA, a minimum 32 composite ACT, and submit other supportive materials that may be required, such as an essay and/or campus interview. Awards range from \$3,000 to \$7,000. Awards are made up to \$8,000 in combination with the Award for Excellence. You must be a Michigan resident and a graduate from a Michigan high school. Grand Valley must be the first institution you attend after graduation from high school. This award is renewable for three additional years provided you continue to maintain a 3.5 or better GPA and complete 25 credits after your first year, 55 credits after your second year, and 85 credits after your third year of attendance.
- b. **Faculty Scholarships.** To be considered for a Faculty Scholarship you must have a 3.5 high school GPA, a minimum 29 composite ACT, and submit other supportive materials that may be required, such as an essay and/or campus interview. Awards are made up to \$4,000 in combination with the Award for Excellence. You must be a Michigan resident and a graduate

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from a Michigan high school. Grand Valley must be the first institution you attend after graduating from high school. This award is renewable for three additional years provided you maintain a 3.5 or better GPA and complete 25 credit hours after your first year, 55 credit hours after your second year, and 85 credit hours after your third year of attendance.

2. **Awards for Excellence.** The following group of scholarships requires students to submit their complete application for admission by February 1 for the following fall semester. Complete applications consist of an application for admission, official transcripts, results of the ACT test, and a \$20 application fee.

- a. **Awards for Excellence Scholarship.** This scholarship provides awards of up to \$3,000, although typically this award is \$1,000. You must be a graduate of a high school in Michigan and Grand Valley must be the first college you attend after graduation. All admitted freshman students will be considered for this scholarship. Typically, students who receive this award have GPAs near 3.5 and ACT composite scores near 26. Other factors taken into consideration in awarding these scholarships may include rank in class, strength of high school curriculum, geographic location, ethnicity, and planned academic major.

This scholarship is renewable for three additional years (eight semesters total) provided you maintain a 3.25 or better GPA and complete 25 credits after your first year, 55 credits after your second year, and 85 credits after your third year.

- b. **Awards for Excellence Transfer Scholarship.** This scholarship provides awards of up to \$1,000. You must be a graduate of an accredited community college in Michigan and have earned or be earning an associate's degree. All admitted transfer students will be considered for this scholarship. Typically, students who receive this award will have college GPAs near 3.75. Other factors taken into consideration in awarding these scholarships may include strength of curriculum, geographic location, ethnicity, and planned academic major. Midyear transfers can be considered for the following fall semester and Grand Valley must be the first institution you attend after you earn your associate's degree.

This scholarship is renewable for one additional year (four semesters total) provided you maintain a 3.25 or better GPA and complete 25 credits after your first year of attendance.

- c. **Out-of-State Awards for Excellence.** This scholarship provides awards up to an amount equal to the differential between non-Michigan and Michigan resident tuition. This amount is currently approximately \$4,970. All admitted freshman students will be considered for this scholarship. Typically, students who receive this award have GPAs near 3.5 and ACT composite scores near 26 or SAT scores near 1150. Other factors taken into consideration in awarding this scholarship may include rank in class, strength of high school curriculum, geographic location, ethnicity, and planned academic major.

This scholarship is renewable for three additional years (eight semesters total) provided you maintain a 3.25 or better GPA and complete 25 credits

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after your first year, 55 credits after your second year, and 85 credits after your third year.

3. **Grand Valley University Freshman Scholarships.** These awards of up to \$1,000 are based on financial need and availability of funds. To be eligible, you must have a 3.1 GPA, a minimum ACT of 20, and not be eligible for certain other forms of scholarship assistance. To apply, you must complete the FAFSA. These scholarships are awarded to freshman students and are not renewable.
4. **Bert Price Diversity Scholarship.** Grand Valley State University is committed to increasing the diversity of its student body. As a result, this \$8,000 scholarship (\$2,000 a year for up to 4 years) is awarded to students from underrepresented populations on our campus. Awards are made to entering freshman students. To be considered for this award, you must have a minimum high school GPA of 3.1 and a minimum composite ACT score of 20 and not be eligible for certain other forms of scholarship assistance. You must apply for admission by February 1. You must also file the Free Application for Federal Student Aid (FAFSA) by February 15 for the following fall semester and list Grand Valley to receive the results of the need calculation. Other factors taken into consideration in awarding this scholarship may include financial need, strength of high school curriculum, geographic location, ethnicity, and planned academic major. This scholarship is renewable for three years provided the student maintains a minimum 2.85 college GPA and satisfactory academic progress.
5. **Bert Price Transfer Diversity Scholarship Program.** Scholarship awards of up to \$3,000 are made to transfer students who are graduates of an accredited community college in Michigan and have earned or will be earning an associate's degree. To be considered for this award you must have a cumulative community college GPA of 3.1 or higher. Other factors taken into consideration in awarding this scholarship may include financial need, strength of the community college curriculum, geographic location, ethnicity, and planned academic major. You must apply for admission by February 1 and submit the Free Application for Federal Student Aid (FAFSA) by February 15 for the following fall semester. These scholarship are renewable for an additional year provided the student maintains a 2.85 GPA.
6. **Minority Business Education Center Scholarships.** These scholarships are awarded to students who are admitted to the Minority Business Education Center Program. Generally, students must meet the criteria listed below. Award amounts will vary, up to full tuition for a Michigan resident.
 - You must have a high school or cumulative collegiate GPA of 3.1.
 - If you are an entering Michigan high school student, you must have a 20 composite score on the ACT. Nonresidents may have a 20 ACT or 930 SAT.
 - You must apply to and be accepted into the Minority Business Education Center Program.
 - Transfer students must have graduated from an accredited community or junior college by the time they enter the program and must matriculate directly to Grand Valley State University.

This scholarship is renewable for three additional years (one in the case of transfer students) provided the student maintains a minimum 2.85 GPA.

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For additional information on this program, and to receive application materials, contact the director of the Minority Business Education Center Program at Grand Valley State University.

7. **Minority Teacher Education Center Scholarships.** These scholarships are awarded to students who are admitted to the Grand Valley Minority Teacher Education Center Program. Generally, students must meet the criteria listed below. Award amounts will vary, up to full tuition for a Michigan resident.
 - You must have a high school or cumulative collegiate GPA of 3.1.
 - If you are an entering Michigan high school student, you must have a 20 composite score on the ACT. Nonresidents may have a 20 ACT or 930 SAT.
 - You must apply to and be accepted into the Minority Teacher Education Center Program.
 - Transfer students must have graduated from an accredited community or junior college by the time they enter the program and must matriculate directly to Grand Valley State University.

This scholarship is renewable for three additional years (one in the case of transfer students) provided the student maintains a minimum 2.85 GPA and is accepted into the School of Education.

For additional information on this program, and to receive application materials, contact the director of the Minority Teacher Education Center Program at Grand Valley State University.

8. **Minority Science Education Center Scholarships.** These scholarships are awarded to students who are admitted to the Grand Valley Minority Science Education Center Program. Generally, students must meet the criteria listed below. Award amounts will vary, up to full tuition for a Michigan resident.
 - You must have a high school or cumulative collegiate GPA of 3.1.
 - If you are an entering Michigan high school student, you must have a 20 composite score on the ACT. Nonresidents may have a 20 ACT or 930 SAT.
 - Transfer students must have graduated from an accredited community or junior college by the time they enter the program and must matriculate directly to Grand Valley State University.
 - You must apply to and be accepted into the Minority Science Education Center Program.

This scholarship is renewable for three additional years (one in the case of transfer students) provided the student maintains a minimum 2.85 GPA.

For additional information on this program, and to receive application materials, contact the director of the Minority Science Education Center Program at Grand Valley State University.

9. **Community College Distinguished Graduate Scholarships.** Grand Valley provides two \$2,000 Community College Distinguished Graduate Scholarships to Grand Rapids Community College and Muskegon Community College and one \$2,000 scholarship to each of the following community colleges: Northwestern Michigan College, West Shore Community College, Lansing Community College, Lake Michigan Community College, Kalamazoo Valley Community College, Kellogg Community College, North Central Michigan

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Community College, and Montcalm Community College. Students are selected by the respective community college presidents. Students must have a total cumulative 3.5 or better GPA, be completing the associate's degree, matriculate directly to Grand Valley, and apply for admission by February 1. To be renewed for one additional year, students must have a 3.5 GPA and complete a minimum of 25 credits. The scholarship will take the place of any other merit scholarships awarded by Grand Valley.

10. **Phi Theta Kappa Scholarships.** New entering transfer students who are members of the PTK Honor Fraternity at Michigan community colleges are eligible to apply for this scholarship. Applicants must possess a 3.5 GPA, be a member of the PTK Fraternity, be admitted to Grand Valley, and enroll as a full-time student. Applicants must apply for admission by March 15, submit a letter of application indicating their educational and career goals, send a letter of recommendation from their PTK chapter advisor, and arrange an interview with the PTK scholarship committee. The scholarship is renewable for one additional year provided the student maintains a 3.5 GPA and maintains satisfactory academic progress. Recipients will be chosen and notified by May 1.
11. **Robert C. Trotter Tri-County Scholarships.** Each high school in the counties of Kent, Muskegon, and Ottawa is allotted two \$250 scholarships to Grand Valley to award to students of their own choosing. Students must have a 3.2 GPA, a minimum ACT composite score of 22, and not be the recipient of other academic scholarships offered by Grand Valley. Entering freshmen wishing to be considered should contact the counseling office in their high school.
12. **Grand Valley UAW Region 1-D Scholarships.** Grand Valley State University, in cooperation with Region 1-D of the UAW, offers two \$1,000 scholarships to entering freshman students who are children of UAW Region 1-D members from selected counties. Transfer students must have graduated from an accredited community or junior college by the time they enter the program and must matriculate directly to Grand Valley State University. To apply for a scholarship, students must have a minimum GPA of 3.1, an ACT composite of 21, be a child of a UAW member in good standing in Region 1-D, and be from Allegan, Barry, Ionia, Kalamazoo, Kent, Montcalm, Muskegon, Newaygo, or Ottawa County. Scholarships will be renewable for three additional years (one additional year for transfer students) provided the student maintains a 3.0 GPA and successfully completes 25 credits after the first year, 55 credits after the second year, and 85 credits after the third year of attendance. Application forms are available from Grand Valley's Financial Aid Office or from the Local UAW Offices. Deadline for submission is February 1 each year.
13. **Upperclass Honor Scholarships.** A limited number of scholarships up to \$1,000 are awarded annually to upperclass students not receiving scholarships from other sources. Students must be full-time undergraduates and have completed at least 40 semester hours at GVSU, or if a transfer student, must have completed at least 15 hours at GVSU. Students are nominated by academic departments and are requested to submit applications and personal essays. Selection of upperclass honor award recipients is made by the GVSU Scholarship Committee. These scholarships may be renewed for one year for students who enroll full time, maintain a 3.25 GPA, and meet the academic progress criteria

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as defined by the GVSU Financial Aid Office (see the Academic Progress section for requirements). Students must apply by the March 1 deadline.

14. **Athletic Scholarships.** Scholarships are given to students participating in varsity sports. Awards are determined by the coaches. Athletic scholarships are awarded in all men's and women's varsity sports—men: baseball, basketball, cross-country, football, golf, swimming and diving, track, and tennis; women: basketball, cross-country, golf, softball, soccer, swimming and diving, tennis, track, and volleyball. If you think you would be eligible for athletic aid assistance, you should contact the appropriate Grand Valley coach for more information.
15. **Music Scholarships.** Music talent awards of up to \$1,000 per year are available to outstanding instrumentalists, pianists, and singers attending Grand Valley State University and participating in various performance groups, regardless of financial need or academic major. Contact the chair of the Music Department for more information.
16. **Fine Arts Scholarships.** These scholarships are for students majoring in the Fine Arts Program at Grand Valley. Information and application forms for these scholarships are available from the departmental offices. Selection of scholarship winners is made by a committee of fine arts faculty members.
17. **High School Scholars Tuition Grant.** High school students taking classes at Grand Valley before they graduate from high school are eligible for tuition grants providing up to one half (50 percent) of actual tuition costs. To be eligible, students must have a 3.5 GPA and permission of their high school.
18. **Michigan Merit Award.** The Michigan Merit Award assists students graduating from Michigan high schools. This award is available to students who score at Level 1 or Level 2 on four MEAP tests given to Michigan high school students during their junior year. Students may also qualify if they score at Level 1 or Level 2 on two MEAP tests and have at least a 24 composite on the ACT test. This award is for \$2,500 and is nonrenewable. Contact the high school guidance office for information on the MEAP testing dates at your school.
19. **Other Grand Valley State University Scholarship Programs**
 - Accounting Alumni Scholarship**
Eligibility: Seniors majoring in accounting.
Amount: \$500, renewable.
Selection: By the Seidman School of Business.
Application: Contact the Dean's Office, Seidman School of Business.
 - Esther N. Adams Memorial Scholarship**
Eligibility: For African-American students; 2.5 GPA.
Amount: \$1,000.
Selection: By the family of Esther Adams.
Application: Contact the Alumni Relations Office.
 - Alumni Heritage Scholarship**
Eligibility: Children of Grand Valley Alumni. Must have a 3.3 GPA and 22 ACT or better as an entering freshman. Must not be receiving academic or other scholarship awards from Grand Valley.
Amount: \$500. Freshman only. Nonrenewable.

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Selection: Upon admission to Grand Valley. Grand Valley must be the first college or university attended after high school.

Application: Students must submit applications for admission by February 1 and indicate that one or both parents are GVSU graduates.

American Production and Inventory Control Society Scholarship

Eligibility: Business administration major.

Amount: \$600.

Selection: By Seidman School of Business.

Application: Contact the Management Department, Seidman School of Business.

American Society for Quality Control

Eligibility: Upperclass student in engineering; 3.0 GPA.

Amount: Up to \$750.

Selection: By faculty committee of the Padnos School of Engineering.

Application: Contact the Padnos School of Engineering.

Angus Foundation "Most Improved Student" Award

Eligibility: Undergraduate student who has shown the most improvement in academic record from the end of fall semester to the end of the following fall semester.

Amount: Varies. Nonrenewable.

Selection: By the director of the Academic Resource Center.

Application: Submit a copy of academic transcript to the Academic Resource Center.

Joseph E. Appelt P.E. Engineering Scholarship

Eligibility: Entering freshmen who demonstrate an interest in environmental issues. GPA of 3.0, an ACT math subscore of 26, an ACT composite score of 23, and 6 units of high school math and science. Must have completed admissions application materials to GVSU by March 1.

Amount: \$500.

Selection: By Padnos School of Engineering.

Application: Contact Padnos School of Engineering.

Art Scholarship

Eligibility: Determined by Art Department.

Amount: \$1,000.

Selection: By Art Department.

Application: Contact Art Department.

Newton D. Becker Scholarship Award

Eligibility: Graduating senior in the accounting program.

Amount: Fee to attend the Becker C.P.A. review course.

Selection: By the Accounting Department.

Application: Contact the Accounting Department, Seidman School of Business.

Business Study Abroad Scholarship

Eligibility: Seidman School of Business students planning to study abroad.

Amount: Varies, \$500 to \$700.

Selection: By Seidman School of Business.

Application: Contact Seidman School of Business.

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David A. Bergsma Scholarship

Eligibility: GVSU athlete.

Amount: \$1,000.

Selection: By Athletics Department.

Application: Contact Athletics Department.

Berkowitz Scholarship for Handicapped Students

Eligibility: Handicapped or learning-disabled student accepted as a full-time degree-seeking student.

Amount: \$500 or larger, depending on need and available funds.

Selection: By the Grand Valley State University Financial Aid Office with the advice and consent of a representative of GVSU's Office of Academic Support.

Application: Contact the GVSU Student Support Program. Deadline is March 1.

Owen Bieber Scholarship

Eligibility: Full-time entering students with 3.5 GPA and 27 ACT. Transfer students must have graduated from an accredited community or junior college by the time they enter the program and must matriculate directly to Grand Valley State University. Apply for admission prior to February 1.

Affiliated with the UAW as follows:

- a member in good standing for five years.
- a retired member of the UAW.
- a spouse of a five-year member or retired member.
- a dependent son or daughter of a five-year member or retired member.

Amount: Tuition and fees. Renewable for three years (one year for transfers) provided you maintain a 3.5 or better GPA and complete 25 credits after your first year, 55 credits after your second year, and 85 credits your third year of attendance.

Selection: By GVSU Scholarship Committee.

Application: Available in the GVSU Financial Aid Office.

Edith Blodgett Piano Scholarship

Eligibility: Music major.

Amount: \$1,000.

Selection: Grand Valley Music Department Faculty.

Application: Contact the GVSU Music Department.

Joan Boand Athletic Endowment Scholarship

Eligibility: Athlete who has used all four years of athletic eligibility; 3.0 GPA.

Amount: \$1,000.

Selection: GVSU Athletics Department.

Application: Contact the Athletics Department.

Branstrom Fine Arts Scholarship

Eligibility: Portfolio and/or application to the fields of music, performing arts, visual arts, dance, and drama.

Amount: Varies.

Selection: By a committee of faculty from the fine arts departments.

Application: Contact chairpersons of fine arts departments.

Costs and Financial Aid

Breen Scholarship Fund

Eligibility: Students who are regularly enrolled in any history course.

Amount: \$200.

Selection: Committee of the History Department.

Application: Contact the History Department. Essay due by April 7.

Brooks Family Minority Scholarship

Eligibility: For racial/ethnic minority students with priority given to residents of the Holland area.

Amount: Varies. Renewable for three years.

Selection: GVSU Financial Aid Office.

Application: Contact the Financial Aid Office.

Donna K. Brooks Presidential Scholarship

Eligibility: Freshman Award of Distinction applicant.

Amount: Varies. Renewable for three years.

Selection: GVSU Financial Aid Office.

Application: Awards of Distinction Scholarship application, which is automatically sent to eligible students by the Admissions Office.

Johnny C. Burton Scholarship

Eligibility: For African-American students majoring in business.

Amount: Varies; \$500 minimum.

Selection: By Minority Business Education Center and family of Johnny Burton.

Application: Contact Minority Business Education Center. Deadline is February 15.

Butterworth Nursing Scholarship

Eligibility: Students admitted into the clinical nursing program; 3.0 GPA.

Amount: \$1,000 per year; number and amount vary.

Selection: By Butterworth Hospital School of Nursing Alumni Committee.

Application: Contact the School of Nursing or the GVSU Financial Aid Office.

Alexander Calder Honor Scholarship

Eligibility: Senior student in theatre, music, art, or dance.

Amount: Tuition, nonrenewable.

Selection: By committee of the Arts and Humanities Division.

Application: Contact the Dean's Office, Arts and Humanities Division.

Campus View Apartments Upperclass Scholarship

Eligibility: Upperclass students with a 3.5 GPA and not receiving other merit scholarships. Replaces a portion of Upperclass Honor Scholarship.

Amount: Two \$500 scholarships.

Selection: By the GVSU Financial Aid Office.

Application: Complete application for Upperclass Honor Scholarship and return to the Financial Aid Office by March 1.

Robert L. Chamberlain Memorial Scholarship

Eligibility: English major with junior status, 3.0 GPA, excellence in writing, and interest in theatre, art, or music.

Amount: Up to \$1,000.

Selection: Scholarship Committee of the English Department.

Application: Contact the English Department. Deadline: March 1.

Costs and Financial Aid

Hong Chen Memorial Scholarship

Eligibility: Asian-American students, 3.0 cumulative GPA or higher, full time.

Amount: Varies.

Selection: Financial Aid Office.

Application: Contact the Financial Aid Office.

Clerical Office Technical (COT) Association Scholarship

Eligibility: Children of GVSU COT employees.

Amount: Varies.

Selection: By COT Scholarship Committee.

Application: Available in the Financial Aid Office. Deadline is March 1.

Computer Science and Information Systems Scholarship

Eligibility: Upperclass computer science major.

Amount: Varies; not renewable.

Selection: Faculty of the Computer Science and Information Systems Department.

Application: Contact the Computer Science and Information Systems Department.

Consumer Credit Association of Greater Grand Rapids Scholarship

Eligibility: Undergraduate students with an academic interest in accounting or finance, or an M.B.A. student, 3.5 GPA.

Amount: Four \$500 scholarships awarded each year, three undergraduate and one graduate.

Selection: Seidman School of Business.

Application: Contact the Seidman School of Business. Deadline is March 15.

Ann M. Cusack Upperclass Scholarship

Eligibility: Upperclass students with a 3.5 GPA and not receiving other merit scholarships. Replaces a portion of Upperclass Honor Scholarship.

Amount: \$1,000 scholarship.

Selection: By the GVSU Merit Scholarship Committee.

Application: Complete application for Upperclass Honor Scholarship and return to the GVSU Financial Aid Office by March 1.

David Daniels Memorial Scholarship

Eligibility: Third-year physical therapy students.

Amount: Varies.

Selection: By the David Daniels Memorial Scholarship Committee.

Application: Contact the chair of the David Daniels Memorial Scholarship Committee in the Physical Therapy Department.

Gilbert and Patricia Davis Scholarship

Eligibility: Junior or senior humanities majors; 3.0 GPA with 30 hours at GVSU for transfer students.

Amount: Up to \$1,000.

Selection: Scholarship Committee of Arts and Humanities.

Application: Contact the English Department.

Greta and Arthur DeLong Scholarship

Eligibility: For education and psychology majors; at least junior level with 3.0 GPA.

Amount: Varies.

Selection: By the School of Education and Psychology Department committees.

Application: Contact the School of Education or Psychology Department.

Costs and Financial Aid

Richard M. DeVos Presidential Scholarship

Eligibility: Freshman Award of Distinction applicant. Commitment to a career in business.

Amount: Varies. Renewable for three years.

Selection: GVSU Financial Aid Office.

Application: Awards of Distinction Scholarship application, which is automatically sent to eligible students by the Admissions Office.

Helen DeVos Presidential Scholarship

Eligibility: Freshman Award of Distinction applicant. Commitment to music and the arts.

Amount: Varies. Renewable for three years.

Selection: GVSU Financial Aid Office.

Application: Awards of Distinction Scholarship application, which is automatically sent to eligible students by the Admissions Office.

L.V. Eberhard Business Scholarship

Eligibility: Entering freshman majoring in business. Must have a 3.5 GPA and a minimum 29 ACT composite score.

Amount: \$1,000 per year, renewable for three additional years provided the student maintains a 3.0 GPA after 25 credits, 3.25 GPA after 55 credits, and a 3.5 GPA after 85 credits.

Selection: By the Seidman School of Business.

Application: Contact the Dean's Office, Seidman School of Business.

L.V. Eberhard Graduate Research Assistantship

Eligibility: Full-time, degree-seeking graduate student in the Seidman School of Business. Student must have a 3.5 GPA and a minimum GMAT score of 600.

Amount: \$6,000 per year including tuition.

Selection: By the Seidman School of Business Faculty Committee.

Application: Contact the M.B.A. program director, Seidman School of Business.

Leslie Eitzen Voice Scholarship

Eligibility: Music students.

Amount: \$1,000, nonrenewable.

Selection: By the Department of Music.

Application: Contact the Department of Music.

FTLC Endowment Scholarship for Minority Students in Education

Eligibility: Racial minority, 3.0 cumulative GPA, and admitted to the Teacher Education or Advanced Studies in Education M.Ed. programs. Preference to full-time students. Financial need also a consideration.

Amount: \$1,000, up to \$2,000 per semester.

Selection: By the FTLC Endowment Scholarship Committee.

Application: Contact the Dean's Office, School of Education. Deadlines are November 1 and March 15.

Federated Garden Clubs of Michigan Scholarship

Eligibility: Biology major with a demonstrated interest in gardening, botany, and horticulture.

Amount: \$1,000.

Selection: By the Biology Department.

Application: Contact the Biology Department.

Costs and Financial Aid

Flanders/University Club Scholarship

Eligibility: Upperclass anthropology or related major.

Amount: Up to \$1,000 per year.

Selection: By University Club Board.

Application: Contact the Anthropology Department. Deadline is March 1.

Geology Scholarship

Eligibility: Geology major at Grand Valley.

Amount: \$500, renewable based on GPA and recommendation of geology faculty.

Selection: By faculty of Geology Department.

Application: Apply directly to Geology Department.

Geology/Earth Science Tremba Scholarship

Eligibility: For geology majors.

Amount: \$500.

Selection: By Geology Department.

Application: Contact the Geology Department.

Gibson Refrigeration Company Scholarship

Eligibility: Son or daughter of employees of Frigidaire Company.

Amount: Tuition and fees and \$50 per semester for books, renewable for three years.

Selection: By Financial Aid Office based on need and academic record.

Application: Apply directly to Frigidaire Company. Deadline is April 1.

Charlotte Gierst and Salome Egeler Music Scholarship

Eligibility: Talented students in music.

Amount: Varies, renewable as determined by Music Department.

Selection: By Music Department.

Application: Apply directly to the Music Department.

Richard Giles Scholarship

Eligibility: Graduate or undergraduate seniors in accounting.

Amount: Varies.

Selection: By the Seidman School of Business.

Application: Contact Accounting Department, Seidman School of Business.

Graduate Teacher Certification Scholarship

Eligibility: Must have applied and been accepted to the School of Education to study at the graduate level or already be a graduate level student in the School of Education, must be pursuing initial teacher certification and must maintain full-time status as a graduate student. Must have a cumulative GPA of 3.5 or better in an approved teachable major and/or in the last 60 credits of undergraduate work, must have demonstrated financial need.

Amount: Varies.

Selection: Selected by the School of Education Scholarship Selection Committee in coordination with the Financial Aid Office.

Application: Contact the School of Education.

Costs and Financial Aid

Grand Rapids Builders Exchange Scholarship

Eligibility: Grand Rapids area full- or part-time students seeking careers in the construction industry. Special application required.

Amount: Up to full tuition at Grand Valley (scholarship not limited to Grand Valley students). Preference to juniors and seniors with 3.0 GPA.

Selection: By Grand Rapids Builders Exchange.

Application: Available at Financial Aid Office. Deadline is June 1.

Grand Rapids Foundation Scholarship

Eligibility: Resident of Kent County, 3.0 GPA, financial need, special application required. Preference to juniors and seniors.

Amount: Varies.

Selection: Nominees are selected by the Financial Aid Office and are forwarded to the Grand Rapids Foundation for final approval.

Application: Special application sent to prospective applicants by the Financial Aid Office. Applications available at the Financial Aid Office. Deadline is April 1.

GVSU Investment Club Student Scholarship

Eligibility: For business majors with 3.2 GPA who are members of the GVSU Investment Club and have completed at least two finance classes.

Amount: \$500; nonrenewable.

Selection: By an appointed member of the Investment Club and the advisor.

Application: Contact the Finance Department, Seidman School of Business.

GVSU Metro Detroit Alumni Scholarship

Eligibility: Entering freshmen from Wayne, Oakland, Macomb, Livingston, Washtenaw, or St. Clair County. GPA of 3.5 and an ACT score of 24 or SAT score of 1110. Must have completed admissions application materials to GVSU by February 1.

Amount: \$500.

Selection: By Metro Detroit Chapter Scholarship Committee of the Advisory Board.

Application: Contact Alumni Relations Office.

GVSU/Padnos/MSPE Engineering Scholarship

Eligibility: Entering Michigan freshmen with 4.0 GPA based on 4.0 for 10th and 11th grades; ACT composite of 26.

Amount: \$1,000.

Selection: By Padnos School of Engineering.

Application: Contact Padnos School of Engineering.

GVSU/Padnos/SAE Engineering Scholarship

Eligibility: Entering freshmen majoring in engineering.

Amount: \$1,000.

Selection: By Padnos School of Engineering.

Application: Contact Padnos School of Engineering.

GVSU Women's Scholarship

Eligibility: Nontraditional, full-time or part-time women.

Amount: Three credit hours of undergraduate or graduate tuition (not including fees).

Selection: GVSU Women's Scholarship Committee.

Application: Contact Academic Resource Center or Financial Aid Office.

Costs and Financial Aid

Earl Harper Management Scholarship

Eligibility: African-American student majoring in business management. Minimum of 2.5 GPA after completing 15 credits at Grand Valley.

Amount: \$500.

Selection: Minority Advisory Council.

Application: Contact Minority Affairs or Career Planning and Placement Office.

Joyce Hecht Philanthropy Scholarship

Eligibility: Pursuing a career plan to eventually promote and develop philanthropy and engage in nonprofit agency fundraising.

Amount: Varies.

Selection: GVSU Financial Aid Office.

Application: Contact the Financial Aid Office.

William Hegarty Scholarship

Eligibility: Students who show promise of becoming law enforcement executives.

Amount: \$1,000.

Selection: By Criminal Justice Department.

Application: Contact Criminal Justice Department.

Paul Henry Foundation Scholarship

Eligibility: Students in the Congressional Intern Program.

Amount: \$1,000.

Selection: By the Paul Henry Foundation.

Applications: Contact the Political Science Department.

Arthur C. Hills Music Scholarship

Eligibility: Music majors or students involved with musical performance group.

Amount: Varies.

Selection: By music faculty.

Application: Apply directly to the Music Department.

Daniel Kemp Alumni Leadership Scholarship

Eligibility: Freshman Award of Distinction applicant.

Amount: Varies. Renewable for three years.

Selection: GVSU Alumni Scholarship Committee.

Application: Awards of Distinction Scholarship application, which is automatically sent to eligible students by the Admissions Office.

Kent Medical Foundation

Eligibility: Students from the Kent County area enrolled in the clinical portion of the Nursing program.

Amount: Varies.

Selection: By the faculty of the School of Nursing.

Application: Contact the School of Nursing.

Kent Medical Foundation Health Sciences Grant

Eligibility: Graduating senior in Health Sciences going on to post-baccalaureate education.

Amount: \$500.

Selection: By the Biomedical and Health Sciences Department.

Application: Contact the Biomedical and Health Sciences Department.

Costs and Financial Aid

Kent Metro Association Grant

Eligibility: Junior and senior criminal justice majors.

Amount: \$250.

Selection: By Criminal Justice faculty.

Application: Contact Criminal Justice Department.

Kirkhof Engineering Scholarship

Eligibility: Entering engineering freshman applying for admission by February 1. Must have a minimum 3.0 high school GPA and a minimum 24 composite ACT with a math score of 26 or better. Must have six units of high school math and science.

Amount: \$500 for the first year; up to \$1,000 per year as an upper-class student.

Selection: By faculty committee of the Padnos School of Engineering.

Application: Contact the Padnos School of Engineering.

Walton Koch Scholarship

Eligibility: Completing a B.S. or B.A. in anthropology or related area, 2.5 overall GPA with a 3.0 in anthropology courses; at least sophomore status.

Amount: Varies.

Application: Contact Financial Aid Office or Anthropology Department.

Albert S. and Ella D. Koeze Art Scholarship

Eligibility: Be entering junior or senior year or beginning graduate-level work. Must be full time as a Bachelor of Fine Arts or Master of Fine Arts degree student with a 3.0 cumulative GPA and show promise as an artist, based on two letters of recommendation from the Department of Art and Design faculty.

Amount: \$1,000.

Selection: Financial Aid Office in coordination with the Department of Art and Design.

Application: Complete application and return to Art and Design Department.

Lynn Kraemer Memorial Scholarship

Eligibility: Student in the nursing program with a minimum 3.0 GPA and 22 ACT.

Amount: \$1,000. Renewable with a minimum 3.25 GPA.

Selection: Recipient recommended by the Financial Aid Office in cooperation with School of Nursing. Final approval made by the family of Lynn Kraemer.

Application: Free Application for Federal Student Aid (FAFSA).

Lacks Enterprises Scholarship Program

Eligibility: Student planning to pursue a career in engineering, business, or environmental-related industry. High school graduate with a 2.5 GPA and an ACT score of 21 or better. Grand Valley student with 3.0 GPA.

Amount: \$500.

Selection: Recipients will be chosen from students who meet the above criteria, with preference to dependents of employees of Lacks Industries, Inc., and Plastic Plate, Inc.

Application: Contact the Human Resources Office of Lacks Industries or the GVSU Financial Aid Office for applications.

Ruth B. Leedy Memorial Scholarship

Eligibility: Award is used to fund an Award for Excellence Scholarship.

Amount: \$500. Renewal criteria follow Award for Excellence Scholarship.

Selection: By Financial Aid Office.

Application: No additional application necessary.

Costs and Financial Aid

Dr. Faite R-P Mack African-American Teacher Education Scholarship

Eligibility: Full-time students of African-American descent, financial need, high GPA, and admitted to the School of Education.

Amount: \$500.

Selection: By School of Education faculty committee chaired by Dr. Faite R-P Mack.

Application: Contact the Dean's Office, School of Education. March 1 deadline.

Mathematics and Statistics Scholarship

Eligibility: Upperclass mathematics or statistics major.

Amount: Varies; not renewable.

Selection: By faculty of the Mathematics and Statistics Department.

Application: Contact the Mathematics and Statistics Department.

Paul C. Miller Scholarship

Eligibility: Student must be a graduate of Sparta High School and demonstrate financial need.

Amount: Up to half tuition for one year.

Selection: Scholarship Committee composed of the Sparta High School principal and a Grand Valley State University Financial Aid officer.

Application: Apply for admission by February 1 and submit the FAFSA form by February 15.

Milhilesh and Jitendra Mishra Foreign Student and Faculty Scholarship

Eligibility: Full-time Business major with preference to Management or International Business students, 2.5 cumulative GPA.

Amount: \$1,000.

Selection: By the GVSU Financial Aid Office.

Application: Contact the Financial Aid Office.

Amos Nordman Foundation Scholarship

Eligibility: Students from low-income families with a high academic standing, indicating a strong possibility of successfully completing a college course of study.

Amount: \$500. Preference to students from the Muskegon area.

Selection: By the Financial Aid Office.

Application: Free Application for Federal Student Aid (FAFSA).

Barbara H. Padnos International Scholarship

Eligibility: Full-time, degree-seeking students attending a semester or full-year overseas study program. Students must have a minimum 2.75 cumulative GPA. Preference is given to students in the Arts and Humanities.

Amount: \$5,000-\$10,000 depending on the length and cost of the overseas study program.

Selection: By a committee from the Barbara H. Padnos International Advisory Board.

Applications: Contact the Barbara H. Padnos International Center in 104 Student Services Building.

Louis Padnos Iron & Metal Co. Employees Scholarship

Eligibility: Sons, daughters, or other dependents of employees of the Louis Padnos Company.

Amount: Up to 75 percent of tuition and fees. Reapply every semester.

Selection: By Padnos Company in cooperation with GVSU Financial Aid Office.

Application: Contact Human Resources at Padnos Company.

Costs and Financial Aid

Peace and Justice Award

Eligibility: Students who are exemplary in their involvement with peace and justice issues and organizations.

Amount: \$1,000.

Selection: By director of Academic Resource Center.

Application: Available in Financial Aid Office. Deadline is March 15.

Plant Services Personnel Scholarship

Eligibility: Dependents of GVSU Plant Service personnel.

Amount: Varies.

Selection: Plant Services Scholarship Committee.

Application: Contact Plant Services. Deadline is April 1.

Polish Heritage Scholarship

Eligibility: Full-time students of Polish descent from West Michigan; minimum 2.75 GPA.

Amount: Up to \$500.

Selection: Recommendations by the Financial Aid Office; final approval by the Polish Heritage Society.

Application: Contact the Financial Aid Office. Application deadline is March 15.

Positive Black Women Scholarship

Eligibility: African American women.

Amount: Varies.

Selection: Positive Black Women Scholarship Committee.

Application: Contact the Counseling Center. Application deadline April 7th.

Berthold Price Endowment Scholarship

Eligibility: Student who has completed at least 15 GVSU credits with a 2.75 GPA. Students must write an essay demonstrating their knowledge of their ethnic minority experience.

Amount: Varies, up to \$1,000.

Selection: The Bert Price Endowment Selection Subcommittee.

Application: Contact the Financial Aid Office or Career Planning and Placement Office. Deadline is March 1.

Esther Rehm Stotz Nursing Scholarship

Eligibility: Entering freshman students intending to enter the nursing profession. Students must have a 3.5 GPA and a minimum 27 ACT composite score.

Amount: \$750 per year renewable for three additional years provided the student maintains a minimum 3.25 GPA and satisfactory academic progress.

Selection: By the faculty of the School of Nursing.

Application: Apply for admission by March 1, declaring nursing as intended major.

Joe E. Reid Scholarship

Eligibility: Students enrolled in the special education program of the School of Education.

Amount: \$500.

Selection: By the School of Education Faculty Committee.

Application: Contact the Dean's Office, School of Education.

School Zone Scholarship

Eligibility: Full-time students. Financial need and academic potential are primary criteria. Preference given to employees of School Zone and their dependents.

Costs and Financial Aid

Amount: \$2,500.

Selection: By the GVSU Financial Aid Office.

Application: GVSU Financial Aid Office.

Mary and Wilhelm Seeger Scholarship

Eligibility: Entering freshman student with background in foreign language who intends to major in a foreign language or use a foreign language in his or her chosen career.

Amount: \$1,000.

Selection: Scholarship Committee of Arts and Humanities.

Application: Contact the Dean of Arts and Humanities.

Seidman Alumni Association Scholarship

Eligibility: Part- or full-time undergraduate or graduate students in the Seidman School of Business. Consideration is given to ACT scores, previous high school or college GPA, and/or financial need. Students must have at least a 3.0 GPA. Two scholarships, one to an undergraduate and one to a graduate student, are awarded annually.

Amount: \$500.

Selection: Seidman Alumni Association Scholarship Committee.

Thomas Seykora Alumni Leadership Scholarship

Eligibility: Award of Distinction Scholarship applicant.

Amount: Varies. Renewable for three years.

Selection: GVSU Alumni Scholarship Committee.

Application: Awards of Distinction Scholarship application, which is automatically sent to eligible students by the Admissions Office.

Shakespeare Scholarship

Eligibility: For entering freshmen majoring in theatre arts.

Amount: \$1,250.

Selection: By Theatre Department faculty committee.

Application: Contact the School of Communications Theatre Department.
Deadline is February 15.

Elizabeth K. Sherwood Memorial Scholarship

Eligibility: Award is used to fund an Award for Excellence Scholarship.

Amount: \$500. Renewal criteria follow Award for Excellence Scholarship.

Selection: By Financial Aid Office.

Application: No additional application necessary.

Marilyn and Budge Sherwood Scholarship

Eligibility: Female and minority M.B.A. candidates.

Amount: \$500.

Selection: By the Seidman School of Business.

Application: Contact the M.B.A. program director, Seidman School of Business.

Ryan Short Memorial Scholarship

Eligibility: For students in the Master of Social Work program pursuing a career in drug and alcohol rehabilitation and education. Minimum 3.2 GPA.

Amount: Varies.

Selection: By the School of Social Work. Final selection by the family of Ryan Short.

Application: Contact the Dean of the School of Social Work. Deadline is April 1.

Costs and Financial Aid

SPX Corporation Engineering Scholarship

Eligibility: Students transferring from community colleges who intend to pursue engineering. Preference is given to students drawn from communities with SPX corporate involvement. Students must have a total cumulative 3.0 or better GPA, matriculate directly to Grand Valley, and apply for admission by February 1.

Amount: Up to \$2,000 per year. Renewable.

Selection: By faculty committee of the Padnos School of Engineering.

Application: Contact the Padnos School of Engineering.

Steelcase Scholarship

Eligibility: Preference given to children of Steelcase employees. Must be a full-time student, demonstrate financial need, 2.5 GPA.

Amount: Up to \$500 per year, renewable.

Selection: By Financial Aid Office.

Application: Steelcase scholarship applications are available from the Financial Aid Office or Steelcase Human Resources. Submission of the Free Application for Federal Student Aid (FAFSA) is also required. Deadline is March 1 each year.

Stephenson Foundation Scholarship

Eligibility: Freshmen with a 3.4 GPA, transfer students with a 3.0 GPA, and graduate students interested in law, accounting, or taxation.

Amount: \$500, renewable.

Selection: By Seidman School of Business.

Application: Contact the Dean's Office, Seidman School of Business, by March 1.

Sullivan Scholarship Trust Fund

Eligibility: Entering freshman from metropolitan Grand Rapids area. Participant in athletics during senior year of high school.

Amount: \$1,000, nonrenewable.

Selection: By the Athletic Department.

Application: Contact the director of Intercollegiate Athletics.

Telephone Pioneers Scholarship

Eligibility: Upperclass or graduate students in teacher education or advanced studies in education.

Amount: Up to the equivalent of three credits of tuition.

Selection: By School of Education faculty committee.

Application: Contact the Dean's Office, School of Education. Deadline is March 1.

Alice C. TenBrink Scholarship

Eligibility: Award is used to fund an Award for Excellence Scholarship.

Amount: \$500. Renewal criteria follow Award for Excellence Scholarship.

Selection: By Financial Aid Office.

Application: No additional application necessary.

TV 35/52 Auction Grant

Eligibility: Highest bidder during the annual Channel 35/52 auction.

Amount: Full tuition and fees for 30 credit hours (in-state, undergraduate).

Selection: Automatic to highest bidder.

Application: None.

Costs and Financial Aid

Florence Cowan Ward Scholarship for Nursing

Eligibility: Junior, senior, or graduate nursing student with a 3.0 GPA or higher, financial need, and taking a portion of the clinical study at Spectrum Health.

Amount: \$1,000; renewable for one year.

Application: Contact the Kirkhof School of Nursing or the Financial Aid Office.

Margaret F. Ward Art and Design Scholarship

Eligibility: Entering junior or senior year or beginning graduate-level work, full-time status as a Bachelor of Art Education degree student, cumulative GPA of 3.0 or better, financial need, showing professional promise as a future educator.

Amount: Varies.

Selection: Department of Art and Design in coordination with the Financial Aid Office.

Application: Contact the Department of Art and Design.

Margaret F. Ward Music Scholarship

Eligibility: Entering junior or senior year or beginning graduate-level work, full-time status as a Bachelor of Music Education degree student, completion of mid-program review by Department of Music, completion of all core music courses, cumulative GPA of 3.0 or better, showing professional promise as a future educator.

Amount: Varies.

Selection: Department of Music in coordination with the Financial Aid Office.

Application: Contact the Department of Music.

The Samuel L. Westerman Foundation Scholarship for Nursing

Eligibility: Junior- or senior-year nursing student with a 3.0 GPA or higher, financial need, student must be active participant in volunteer community service program.

Amount: \$375; renewable for a total of six semesters.

Selection: School of Nursing faculty in cooperation with the Office of Financial Aid.

Application: Contact the School of Nursing or Office of Financial Aid.

WGVU-TV Scholarship

Eligibility: Any outstanding student employee of WGVU/WGVK-TV.

Amount: Full tuition, one year.

Selection: By a scholarship panel assembled by the TV station.

Application: Contact WGVU-TV 35 and WGVK-TV 52.

Doug and Linda Woods Excellence in Athletic Training Scholarship

Eligibility: Full-time undergraduate students with a 3.0 cumulative GPA or higher, junior standing, and admitted into the athletic training curriculum.

Amount: \$1,000.

Selection: Panel of Grand Valley Athletic Training Alumni.

Application: Contact the Athletic Training Office.

Lt. William Zimmerman Scholarship

Eligibility: Member of U.S. Marine Corps Reserve, admitted or enrolled in good standing as full-time degree-seeking student. Deadline April 1. Must submit letters of recommendation and high school transcripts.

Amount: Varies.

Selection: By GVSU Scholarship Committee.

Application: Available in the Financial Aid Office.

Costs and Financial Aid

Felix V. and Gladys A. Zukaitis Scholarship Trust Fund

Eligibility: Award is used to fund an Award for Excellence Scholarship.

Amount: \$1,000.

Selection: Students will be selected from those qualifying for Award for Excellence Scholarships.

Application: Applications for admission must be received by February 1 of the student's senior year in high school. Must submit the FAFSA form by February 15.

Felix V. and Gladys A. Zukaitis Athletic Scholarship Trust

Eligibility: Must be a member of a GVSU intercollegiate athletic team, have a minimum 2.0 GPA, and have financial need.

Amount: \$1,000.

Selection: Students will be selected by the Athletic Department in consultation with the Financial Aid Office.

Application: Must be admitted to Grand Valley, be accepted as a member of an intercollegiate varsity athletic team, and submit the FAFSA form to the appropriate agency.

Student Employment

The Student Employment Office assists students in finding jobs both on and off campus. Their new Web-based program is available to all students who are eligible to enroll at Grand Valley. This program allows students to search for jobs from any location, on or off campus, where they have access to the Internet. The program posts both work-study and non-work-study jobs. Many opportunities exist in university departments, such as working at the public television station, the computer labs, the library, the food service, the golf course, and the Fieldhouse, among others. Most on-campus jobs require students to work 10–15 hours per week. Off-campus jobs require students to work 10–25 hours per week. Off-campus jobs are available in West Michigan, including the Grand Rapids area. The Student Employment Office is located at 101 Student Services Building. Telephone: (616) 895-3238. Web address: www.gvsu.edu (select Student Employment on the Quick Find list).

Educational Loans

Michigan Alternative Loan Program (MI-LOAN). This loan program is an alternative source of loan funds to credit-worthy Michigan students and their families. Need is *not* a factor, but students *must* submit a Free Application for Federal Student Aid (FAFSA) to be considered. The student or an eligible co-signer must meet the Student Loan Authority's credit test. Students may choose either a fixed or variable interest rate. Repayment begins immediately, although the student may request to make only interest payments while enrolled. MI-LOAN applications are available from Grand Valley State University's Office of Financial Aid, participating lenders, and from the Student Loan Authority.

Alternative loans are nonfederal loans used to supplement students' other financial aid. The GVSU Financial Aid Office has applications from additional agencies that process alternative loans.

Federal Direct Unsubsidized Student Loan Program. The unsubsidized loan is *not* based on need. Eligibility is determined by taking the cost of education to attend GVSU and subtracting any financial aid the student has been awarded. The interest rate is variable, with a cap of 8.25 percent. Under the Unsubsidized Federal Direct

Costs and Financial Aid

Student Loan Program, however, *the student must pay the interest on the loan* while enrolled in school, during the grace period, and during any periods of deferment or repayment. Students may defer the interest payments and allow them to be capitalized on their principal. Students selecting this option should be aware that their loan principal will increase based on the amount of that unpaid interest. The federal government deducts a 3 percent origination fee from the total amount of the loan. Repayment of the loan principal begins six months after the student is no longer enrolled at least half time. To receive this application and be considered for the Unsubsidized Federal Direct Student Loan, students must first complete the Free Application for Federal Student Aid listing Grand Valley.

Federal Direct Parent Loan for Undergraduate Students (PLUS): Parents of dependent students may borrow funds under the Parent Loan Program as authorized by the Education Amendments of 1986. The program makes loans of up to the full cost of educational charges without regard to financial need. The interest rate varies with the Treasury Bill rate and repayment begins 60 days after loan funds are disbursed. Applications for this loan may be obtained from the GVSU Financial Aid Office. Funds are made available through the Federal Direct Plus Loan Program. Grand Valley, not local banks, will originate these loans for parents.

Programs Based on Need

Grants and Scholarships

The programs listed below are considered “gift” assistance and do not require repayment.

1. **Grand Valley University Freshman Scholarships.** These awards of up to \$1,000 are based on financial need and availability of funds. To be eligible you must have a 3.1 GPA, a minimum ACT of 20, and not be eligible for certain other forms of scholarship assistance. To apply, you must complete the FAFSA. These scholarships are awarded to freshman students and are not renewable.
2. **Michigan Competitive Scholarships.** The Michigan Higher Education Assistance Authority (MHEAA) offers scholarships on an annual, renewable basis. You must (1) fill out the Free Application for Federal Student Aid before February 15, (2) demonstrate financial need, (3) qualify as a result of your performance on the American College Test (ACT), (4) be a continuous resident of Michigan for 12 months preceding the examination date, (5) be a high school graduate with no previous college training, and (6) comply with all other provisions of Public Act 208 and regulations adopted by the MHEAA.

If you are a high school student, you should ask your counselor for further information about taking the ACT before the end of your junior year.

As a scholarship winner, you are eligible to have your scholarship renewed if you are making satisfactory academic progress, have a cumulative GPA of 2.0 or higher, and continue to demonstrate financial need. You must reapply for the scholarship each year by filing the Free Application for Federal Student Aid (FAFSA) before March 15. You must also satisfy other regulations adopted by the state authority.

3. **Federal Pell Grants.** This program is the main source of federal financial aid funds. Under it, you can receive awards up to \$3,750. If you are eligible to receive a Pell Grant, you will be notified directly by the federal government. To apply for a Pell Grant, you must submit the FAFSA and indicate on this form that you wish Grand Valley State University to receive your application.

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You will then receive a notification form, called the Student Aid Report (SAR). The Financial Aid Office in turn will notify you of the exact amount of the grant, which is determined from a payment schedule published by the U.S. Department of Education.

4. **Federal Supplemental Educational Opportunity Grants (SEOG).** These federal grants, ranging from \$100 to \$1,000, are awarded to full-time students of *exceptional* financial need who, without the grant, would be unable to continue their education. No specific GPA is required for renewal; however, students must be making satisfactory academic progress to remain eligible. Priority is generally given to students who qualify for the Pell Grant Program.
5. **Michigan Educational Opportunity Grants.** The State of Michigan provides grant assistance for needy undergraduates who are enrolled at least half-time. Students must submit the FAFSA (Free Application for Federal Student Aid). Because these funds are limited, they are targeted to students with greatest financial need.
6. **University Grants-in-Aid.** You may be eligible for a University Grant-in-Aid if you are from an extremely economically disadvantaged background and if your other loans, grants, or student employment are insufficient to meet your needs as determined by the Grand Valley Financial Aid Office. Only a limited number of these grants are available.
7. **Michigan Adult Part-Time Grant.** This program is designed to provide grants to financially needy students who enroll as part-time students (3–11 credits). Students must be self-supporting, out of high school for at least two years, and Michigan residents. You must file an FAFSA (Free Application for Federal Student Aid) and notify the GVSU Office of Financial Aid that you wish to apply for this grant. Students can receive this grant for only four semesters. The maximum grant is \$300 per semester.

Educational Loans

1. **Federal Perkins Loans.** This federal loan program is for students who can establish financial need, are U.S. citizens, meet the academic progress requirements of Grand Valley, and are not in default on previous Federal loan programs. No interest accrues and no repayment is required while you carry at least a half-time load in most institutions of higher education. Repayment at a minimum of \$40 per month is required within a 10-year period following the termination of your student status. Because of limited funds, loans are made for up to a maximum of \$1,500 per year. Students must complete the Free Application for Federal Student Aid. Eligible students will be notified by the GVSU Financial Aid Office.

The interest rate is a simple annual 5 percent on the unpaid balance with repayment beginning nine months after the termination of study.

2. **Federal Direct Subsidized Loan.** This federal loan program operates through the U.S. Department of Education and provides loans to students to help meet their educational expenses. Interest rates are variable, with an 8.25 percent cap, and four repayment options. If you are eligible for a subsidized loan, the federal government will pay the entire interest charge while you are in college. Students must demonstrate financial need to qualify. A student can borrow up to \$2,625 for the freshman year of study, \$3,500 for the sophomore year, \$5,500 for the junior and senior years, and \$8,500 for each year of graduate study,

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although the total borrowing plus other available resources cannot exceed the calculated financial need of the student to attend Grand Valley. Students must complete the Free Application for Federal Student Aid. Eligible students will be notified by the GVSU Office of Financial Aid.

3. **Nursing Loans.** These federal loans are for students who are accepted into the nursing program at Grand Valley. Nursing loan criteria closely follow those of the Federal Perkins Loan Program.
4. **Harriet D. Dively Loan Fund.** A limited number of institutional long-term loans to students with unusual situations of documented financial need. Loans are granted for up to \$1,000 per year at 6 percent interest, with repayment after students terminate their education. Students must apply for regular financial aid using the FAFSA and see a Financial Aid counselor for additional information. Preference is given to upper class students.
5. **Leon W. Hall Loan Fund.** Limited institutional loan funds to students who do not qualify for other federal and institutional loans but who still demonstrate

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need. Loans are made at 6 percent interest up to \$1,000 per year. Preference is given to upper class students. Students must complete the FAFSA.

6. **Grand Valley Short-Term Loans.** For a small service fee, short-term loans are available for books and other emergencies. Repayment dates are determined by the Financial Aid Office at the time of application but generally do not exceed 60 days or the end of the semester (whichever comes first). Applications and general policies regarding short-term loans are available at the Financial Aid Office.
7. **Grand Valley Tuition Loans.** Tuition loans allow students to pay tuition in four monthly payments for a \$30 service fee per semester. Applications and general policies regarding tuition loans are sent with the initial tuition billing each semester and are also available at the Financial Aid Office.
8. **Employee Deferred Tuition Loans.** Employees from participating companies that have a tuition reimbursement program are eligible to apply for a deferred tuition loan. Under this program, students may defer payment of their tuition until they receive reimbursement from their employers. Applications for this loan are sent with the initial tuition billing each semester and are also available in the Financial Aid Office.

Student Employment

1. **Federal College Work-Study Program.** Most campus jobs are funded under this program. Preference is given to students who have the greatest financial need, who meet the academic progress requirements of Grand Valley, and who are enrolled for a full program of courses. Students usually work an average of 10 to 15 hours a week. Attempts are made to find jobs in line with the students' class schedules and job skills; however, employment is not guaranteed.
2. **Michigan Work-Study Program.** Grand Valley also receives funds from the State of Michigan to provide work opportunities for needy undergraduate and graduate students. The guidelines for this program follow those for the Federal College Work Study Program.

Special Programs

The Veterans Readjustment Benefits Act (G.I. Bill) provides educational benefits for servicemen who have served on active duty. You can obtain further information from the Veterans Administration Office nearest your home or by calling 1-800-827-1000.

Michigan Public Act 245 provides partial tuition payment to students from Michigan who are children of veterans who died in service or were totally disabled because of service causes. You can request an application and further information from the Michigan Veterans Trust Fund, Lansing, Michigan 48904.

Veterans Administration Benefits Federal Public Laws 634 and 88-361 provide educational allowances to children of deceased or totally disabled veterans if the cause is service-connected. You can obtain an application from the Veterans Administration, 477 Michigan Avenue, Detroit, Michigan 48226, or any Veterans Administration Office.

Vocational Rehabilitation. The Michigan Department of Education, Bureau of Rehabilitation Services, provides services and financial assistance to students with certain disabilities. You can obtain information by calling your local Bureau of

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Rehabilitation Office or writing to the Bureau of Rehabilitation, Department of Education, Lansing, Michigan 48904. To renew Vocational Rehabilitation assistance, you must submit the necessary financial aid forms each year and make arrangements for a review of your case with your Vocational Rehabilitation Counselor.

Native American Tuition Waiver. The State of Michigan has provided funds to the state universities that permit tuition waivers for all Native Americans who can certify 25 percent or more of Indian blood. Application forms are available in the Financial Aid Office.

Tribal Grants. Financial assistance may be available for Native American students who are affiliated with a tribe. For more information on requirements and application materials, contact your tribal Higher Education Officer.

Private Scholarships. A limited number of scholarships are available from private sources. Contact organizations in your community that may provide scholarships, especially those in which you and/or your parents are active. Your local high school guidance office is also a source of this information. A search on the Internet of the word “scholarship” will provide a number of resources. Scholarships may have deadlines beginning as early as October 1 for the following year, so it is important to begin your search as early as possible.

Repayment of Unearned Federal Student Aid

New federal regulations require that the recipients of federal grants and loans who completely withdraw from an institution during an enrollment period must repay a portion of the loan or grant funds that were disbursed for that enrollment period. The statute makes clear that federal funds are awarded to a student under the assumption that the student will attend for the entire period for which the assistance is awarded. When a student ceases academic attendance before the end of that period, the student has not earned all of the federal financial aid and therefore is not eligible for the full amount of the federal funds awarded. The amount of federal funds earned by the student is determined by multiplying the percentage of the enrollment period completed by the total amount of federal loans and grants disbursed. If a student completely withdraws before 60 percent of the semester is completed, the student will be required to repay a portion of the federal financial aid. If the percentage of the enrollment period completed is more than 60 percent, the student has earned 100 percent of the aid. *Students who completely withdraw will be billed for the amount of the unearned federal student aid based on the above determination. Any refund due the student under Grand Valley's tuition refund policy will be deducted from the amount owed.*

Students who withdraw during the 100 percent refund period will be required to repay funds previously advanced to them. These students will be billed. Failure to provide repayment will result in a hold being placed on the student's transcript and ineligibility for further financial aid funding until such funds are repaid.

Definitions

1. Title IV programs include Federal Perkins Loans, Federal Supplemental Educational Opportunity Grant (SEOG), Federal College Work-Study (CWS), Federal Pell Grant Program, and Federal Direct Loan Program (FDSL). Repayments are not required for College Work-Study.
2. Unofficial withdrawal—students who drop out but do not officially go through withdrawal procedures. In cases of unofficial withdrawals the last recorded

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day or known class attendance will be used as the date of withdrawal. *All* cash disbursements made to that student will be required to be repaid if he is unable to document his last day of attendance.

3. Cash disbursement—the actual amount of financial aid received by the student minus actual institutional charges for tuition and room and board.

Academic Progress

It is the policy of Grand Valley State University to provide financial aid awards to students who are capable of remaining in good academic standing and who make adequate progress toward their degrees while receiving financial aid. Adequate progress required to remain eligible for aid is defined according to the table below and applies to credits earned at Grand Valley. In addition, the Academic Progress Standards require a minimum 2.0 GPA after four semesters of attendance at Grand Valley. Undergraduate students may receive financial aid for a maximum of 12 semesters, graduate students for eight semesters. There will be a prorated adjustment in the academic progress criteria for part-time students.

Semesters on Aid	Credits Needed to Remain Eligible and to Continue on Financial Aid		Full-time Normal Progress	
	Grad	Ungrad	Grad	Ungrad
1	5	10	9	15
2	10	20	18	30
3	15	30	27	45
4	20	40	36	60
5	25	50	45	75
6	30	60	54	90
7	35	70		105
8	40	80		120
9		90		135
10		100		150
11		110		165
12		120		180

Students will be responsible for knowing and understanding the academic progress policy. Federal regulations governing all Title IV funds require institutions to monitor the academic progress of all financial aid applicants. This will be done when students apply for aid. If you do not meet the above criteria, you will be ineligible to continue to receive financial aid until you again earn sufficient credit to meet the criteria. You may submit a written appeal to the Financial Aid Office if there are special circumstances that warrant a continuation of aid. Students may be required to interview with the Financial Aid Appeals Committee. If you receive approval of your appeal, you will be sent a letter that indicates the conditions governing continued approval of financial aid. Students will normally be given one additional semester to demonstrate their ability to meet the conditions indicated. Students who fail to meet the conditions will be denied further financial aid.

Conditions Governing Acceptance of Your Award

In accepting your financial aid award offer, you are stating that you have met and will meet all of the following conditions of acceptance:

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1. The information submitted by you (and your parents or spouse, if applicable) is true, correct, and complete to the best of your knowledge.
2. You will use the financial aid awarded to you only for payment of tuition, books, room and board, transportation, and other related educational expenses.
3. If you completely withdraw from Grand Valley before the 60 percent point of the enrollment or payment period, you will be required to repay a portion of the federal financial aid disbursed to you.
4. You will report to Grand Valley's Financial Aid Office if you receive assistance from any source that was not originally on your award letter. Grand Valley reserves the right to adjust financial aid when other aid is received.
5. You will maintain sufficient academic progress toward your degree according to the policy of Grand Valley State University (see Academic Progress section).
6. You have not defaulted on any previous Title IV loan, do not owe a refund or repayment to any institution on any Title IV (Pell Grant, SEOG, Perkins Loan, Work-Study, Federal Direct Loans, and state scholarships funded under Title IV) program, and have not borrowed in excess of any loan limits from any Title IV program at any institution.
7. You will maintain the minimum credit requirements for your financial aid award. Your award letter indicates by semester the minimum number of credit hours you must enroll in to receive your financial aid. If you drop below the required number of credit hours upon which your award was based or if you withdraw completely from your courses, you may be expected to repay all or part of your award (see the Tuition and Fees Refund section).
8. The Military Selective Service Act (Pub. L. 97-252) requires that any student who is required to register with the Selective Service and fails to do so is ineligible for Title IV Student Financial Aid (Pell Grant, SEOG, Perkins Loan, Work-Study, Federal Direct Loans, and state scholarships funded under Title IV). Among Title IV financial aid applicants, men who are at least 18 years old and born after December 31, 1959, and who are not currently on active duty with the Armed Forces must be registered. If you are applying for Title IV student financial aid, you may have to sign a statement certifying that either you are indeed registered with the Selective Service or that you do not have to be registered with them.
9. You may be asked to submit additional documentation (e.g., 1040 tax returns) to the GVSU Financial Aid Office as part of your application for financial aid. The federal government requires that a number of financial aid forms be verified for correctness of information. If your application is selected, we will not be able to award and disburse your financial aid to you until all documentation is received and verification of information is complete.
10. You will be required to have entrance counseling prior to disbursement of your first Direct Loan at GVSU to receive information about your rights and responsibilities as a borrower. You will be required to have exit counseling during the semester prior to your graduation or following an enrollment period of less than half-time.
11. You agree that financial aid awarded to you may be used as a credit toward payment of all tuition, fees, room and board, and all other charges that may be due or past due on your student account.

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Unit of Credit

The unit of credit is the semester hour; the number of semester hours credit given for a course generally indicates the number of periods a class meets each week.

System of Grading

Coursework is evaluated as follows:

Grade	Quality Points	Grade	Significance
A	4.0	CR	Credit
A–	3.7	NC	No Credit
B+	3.3	I	Incomplete
B	3.0	W	Withdrawal
B–	2.7	AU	Audit
C+	2.3	X	Deferred
C	2.0	NR	NoReport
C–	1.7		
D+	1.3		
D	1.0		
F	0.0		

Quality points are the numerical equivalent of letter grades. A grade point average is computed by dividing the number of quality points earned by the number of semester credits attempted (only those graded A–F). The GPA (grade point average) is used to determine academic standing, eligibility to participate in certain curricular and co-curricular programs, academic honors, and academic standing, which may include warning, probation, suspension, or dismissal. A *minimum* GPA of 2.0 for undergraduate students and 3.0 for graduate students is required for graduation. Some programs require a GPA in excess of the minimum to satisfy major requirements. Please refer to each academic section for specific requirements.

Graduate credit will be awarded for grades of C (2.0) or better. This includes all graduate coursework and core, background, and foundation courses. Grades below C will figure in a student's GPA, but the credits will not count toward the degree.

Incomplete

This is a temporary grade given for work that is lacking in quantity to meet course objectives. It may be assigned when illness, necessary absence, or other reasons generally beyond the control of the student prevent completion of the course requirements by the end of the semester. This grade may not be given as a substitute for a failing grade or withdrawal. Unless changed by the instructor, the I will be changed to an F (NC when appropriate) according to this schedule: fall semester incompletes, end of winter semester; winter and spring/summer incompletes, end of fall semester.

Deferred Grade

The grade of X (deferred) is a temporary grade that may be given only in a course that cannot be completed in one semester. Such courses are usually research

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projects. A department that wishes to assign the grade of X must receive approval for such courses from the Curriculum Committee before students enroll. This grade is given only for work that is satisfactory in every respect but for which students need more than one semester to complete. An X grade must be removed within two calendar years from the date of assignment. If not, it will be changed to NC.

Credit/No Credit Grade

All coursework will be graded (A–F) unless the appropriate faculty body within a division, the dean of the division, and the Curriculum Committee have approved proposals on an individual course basis that the course be conducted on a credit/no credit basis.

Undergraduate students may elect certain undergraduate coursework on a credit/no credit basis. A maximum of 10 semester hours of major, minor, or cognate courses within the major may be taken on a credit/no credit basis only with the consent of the student's major department. A maximum of 25 percent of a student's hours of Grand Valley courses earned to fulfill graduation requirements may be taken on a credit/no credit basis (Credit=C or above). Courses that are graded CR/NC as the standard grading scheme (e.g., internships) do not count in the maximums stated above. Consent is unnecessary if the course is an elective, a general education course, or a degree cognate. Changes from a grade to credit/no credit and vice versa will not be allowed after the first week of the semester.

Repeating a Course

Students who repeat a course will have only the last grade counted toward their GPA, whether or not the last grade is higher. Grades of I, W, AU, or NC do not replace an earlier grade. Students must notify the registrar of their intention by filing the appropriate form during the semester in which they repeat the class. Because several departments have changed course numbers, students and their faculty advisors should determine the current course equivalent to the course taken previously.

Please note: Many undergraduate secondary admission programs and post-graduate professional programs routinely recalculate students' undergraduate GPAs to include repeated coursework. The inclusion of repeated grades may lower your overall GPA when applying to such programs. Students should consult with prospective programs regarding their policies before applying.

Auditing a Course

Any student may register to take a course on an audit, or noncredit, basis, provided admission and course prerequisites have been met. Students who wish to audit a course must indicate their intent to the registrar during the first five class days of the semester. Changes from credit to audit and vice versa will not be allowed after the first week of the semester. Tuition costs for auditing are the same as for credit.

Withdrawing from a Course

A student may withdraw from a course and receive a grade of W when the completed drop slip is presented to the registrar by the end of the eighth week. Students who do not withdraw before the deadline must accept a grade other than W depending on the instructor's judgment of their performance in the course(s) and any mitigating circumstances.

Withdrawal from Grand Valley State University

Students withdrawing from Grand Valley during an academic term must obtain a complete withdrawal form from the registrar and have it signed by the Dean of Academic Resources, the Director of Housing, and the Director of Financial Aid, if applicable. The completed form must be returned to the Student Assistance Center. Any refunds will be based on the date the completed form is filed with the registrar.

Students in good standing who wish to return to Grand Valley after an absence of two or more semesters must submit a Petition to Return form to the Student Assistance Center prior to registration. The form can be obtained from the Office of Admissions or the Student Assistance Center.

Uniform Course Numbering System

1. Uniform Course Numbering Guidelines

Category	Description
000–099	Credit in these courses does not apply to the minimum 120 credits required for graduation.
100–199	Introductory courses generally without prerequisites, primarily for first-year students.
200–299	Courses primarily for second-year students.
300–399	Courses primarily for third- and fourth-year students.
400–499	Advanced courses primarily for fourth-year undergraduate students. Appropriate 400-level courses may be designated for credit in a graduate program.
500–699	Courses for graduate students. Selected courses may be available to undergraduate students by permission.

2. Reserved Undergraduate Course Numbers

- The numbers 180, 280, 380, and 480 are reserved for use only as special topics courses.
- The numbers 399 and 499 are reserved for use only as independent study and research courses.
- The number 490 is reserved for use only as an internship or practicum course.
- The number 495 is reserved for use only as a capstone course.

3. Reserved Graduate Course Numbers

- The number 680 is to be used for graduate special topics courses.
- The number 690 is to be used for graduate research preparation courses.
- The number 693 is to be used for graduate project courses.
- The number 695 is to be used for graduate thesis courses.
- The number 699 is to be used for graduate independent study courses.

Grade Reports—Midterm

Grades are reported by the registrar at midterm as well as at the conclusion of the semester. Midterm grades are reported for all freshmen and for any undergraduate student in other than good standing. Midterm grades will be mailed to the student's local address and not recorded on the student's official transcript.

Grade Reports—End of Term

Final grades are reported at the conclusion of each academic term and become part of the official record of the student. Final grade reports are mailed to the

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student's permanent address within one week of the last day of the examination period unless interrupted by university closure for holidays.

Transcripts

Transcripts of students' academic records are available from the Student Assistance Center. Requests for an official transcript, bearing the signature of the registrar and the university seal, will be prepared and mailed within 24 hours after the request. Unofficial transcripts will be prepared immediately for currently enrolled students and within 24 hours for inactive students at no charge. No transcripts will be released if a student has an encumbrance or indebtedness to Grand Valley State University.

To comply with the federal mandate, transcripts will not be released without a signed, written request from the student.

Access to Records

Students at Grand Valley have access to official records and data pertaining to themselves and the right to deny access to those records to others as set forth in Section 438 of the Family Educational Rights and Privacy Act of 1974, as amended. A copy of the Privacy Act appears in the *Student Code*.

Academic Honesty

Integrity of Scholarship and Grades. Truth and Honesty. The principles of truth and honesty are recognized as fundamental to a community of teachers and scholars. The university expects that both faculty and students will honor these principles and in so doing protect the validity of university grades. This means that all academic work will be done by the student to whom it is assigned without unauthorized aid of any kind. Instructors, for their part, will exercise care in the planning and supervision of academic work, so that honest effort will be positively encouraged. Compliance shall include compliance with the following specific rules:

1. No student shall knowingly, without authorization, procure, provide, or accept any materials which contain questions or answers to any examination or assignment.
2. No student shall, without authorization, complete, in part or in total, any examination or assignment for another person.
3. No student shall, without authorization, allow any examination or assignment to be completed, in part or in total, by another person.
4. No student shall knowingly plagiarize or copy the work of another person and submit it as his or her own.
5. No student shall submit work that has been previously graded or is being submitted concurrently to more than one course without authorization from the instructor(s) of the class(es) to which the student wishes to submit it.

Plagiarism. Any ideas or material taken from another source for either written or oral presentation must be fully acknowledged. Offering the work of someone else as one's own is plagiarism. The language or ideas taken from another may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, speeches, or the writing of other students. The offering of materials assembled or collected by others in the form of projects or collections without acknowledgment also is considered plagiarism. Any student who fails to

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give credit in written or oral work for the ideas or materials that have been taken from another is guilty of plagiarism.

Such activity may result in failure of a specific assignment, an entire course, or, if flagrant, dismissal from Grand Valley. For further information see the *Student Code*.

Policy on Research Integrity. The university has developed policies and procedures to comply with the Federal Government regulations regarding dealing with and reporting possible misconduct in science. Allegations of misconduct in science should be referred to the appropriate dean or appointing officer and the Provost and Vice President for Academic Affairs (excerpted from *Grand Valley State University Policy and Procedures for Handling Allegations of Misconduct in Science*; for the complete policy refer to the *Faculty Handbook*). Students involved in research who suspect that an incident of misconduct in science has occurred should report the incident to the dean of their academic division.

Student Academic Grievance Procedures

Academic grievances are generally defined as those (a) involving procedures, policies, and grades in courses, (b) those involving major, minor, or program (graduate or undergraduate) degree requirements, (c) those involving general undergraduate university graduation requirements such as general education, total credit, or residency requirements, or (d) graduate degree requirements such as total credit or residency requirements. Filing of a grievance is required by the end of the following regular semester after notification of grade or receipt of adverse decision. Appeals of decisions must take place 30 days after receipt of notification.

a. Resolution of an academic grievance involving procedures, policies, and grades in individual courses. The resolution of academic grievances is based on two principles: first, that the resolution of a grievance should be sought at the lowest possible level, and second, that pathways for appeal exist for both faculty and students. Resolution should be pursued as follows:

1. An appeal to the instructor.
2. If the grievance is not resolved to the student's satisfaction, a further appeal could be made to the unit head (or unit head equivalent for purposes of grievance—see below), who may request that the appeal be put in writing. Both the student and the faculty member will be notified in writing of the unit head's (or equivalent) decision.
3. If the disposition by the unit head (or equivalent) is not acceptable to either party, an appeal, in writing, may be made by either party to the dean of the division or autonomous school. If the dean feels that there is some merit in the written grievance, he or she shall establish a committee to review the grievance and make a recommendation within 60 days to the dean.

Such a committee shall include a representative of the dean's office, a faculty representative from the division or autonomous school of the course under appeal, and a student representative. Upon receiving the committee's recommendation in the latter procedure, the dean shall rule on the grievance. Both the student and the faculty member will be notified in writing of the dean's decision.

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4. If the disposition by the dean is not acceptable to either party, an appeal, in writing, may be made to the Provost. The Provost's review and judgment in the case will be final. Both the student and the faculty member will be notified in writing of the Provost's decision.

In cases where the faculty member in question also serves as the unit head (or unit head equivalent for purposes of grievance), the dean shall appoint a suitable faculty member from the division or autonomous school to function as unit head for purposes of grievance. In a similar fashion, if the faculty member in question also serves as dean, the Provost shall appoint a faculty member to act as the unit head for purposes of grievance. If an appeal is sought in this latter case, it will go directly to the Provost.

The organization of divisions and autonomous schools differ, so that some organizational units may not have a unit head who fulfills the duties described for a unit head in the Faculty Handbook. In these cases, subject to approval by the UAS, these schools will appoint a member of the faculty to function as the unit head equivalent for purposes of grievance.

- b. Resolution of an academic grievance involving fulfillment of program, major, or minor degree requirements should be pursued as follows: An appeal to the unit head (or unit head equivalent for purposes of grievance—see (a)—or graduate program director. If the grievance is not resolved to the student's satisfaction at this level, an appeal to the dean of the division would be possible, in the same manner as outlined in (a). Finally, a further appeal could be made to the Provost as described in (a) above.
- c. Resolution of an academic grievance involving fulfillment of general undergraduate university requirements, such as general education, total credits, and residency requirements should be pursued as follows: A written appeal to the director of the Academic Resource Center. If at this point the grievance is still not resolved to the student's satisfaction, a further written appeal could be made to the Provost. In this case, the Provost shall establish a committee to review the grievance and make a recommendation within 60 days. Such a committee shall include a representative of the Provost's office, a faculty representative related to the student's major, and a faculty representative from outside the student's division. Upon receiving the committee's recommendation, the Provost will render a final judgment in the case.
- d. Exceptions to institutional graduate degree requirements sought by individual students will be determined by the dean and the Provost.

The student filing the grievance may have an observer from the Dean of Students Office or a person of his or her choice attend any meeting at which the student appears. The faculty member involved in the grievance may have an observer of his or her choice attend any meeting at which the faculty member appears.

Registration

New undergraduate students. Course selection and tuition payments are completed during the orientation program. Complete orientation/registration information is mailed to all new students before their intended term of entry.

New graduate students. Complete registration information is mailed to all new students before their intended term of entry.

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Advance registration is intended primarily for all currently enrolled and former students and is normally held during the preceding semester.

Late registration occurs during the first five days of each semester. Any registration or tuition payment received during the period must be accompanied by a \$50 nonrefundable late registration fee. Courses beginning after the fifth class day, workshops, or similar offerings without a prescribed registration process will be free of late fee assessment on the first class day.

Schedule revision, or drop/add, is held concurrently with all registrations. A student may drop or add any course for which prerequisites have been met and capacity permits. Additional tuition charges are due when a student adds a credit. Under exceptional circumstances a student may be allowed to add a course after the deadline. The completed transaction, accompanied by support from the instructor, department chair, and divisional dean, must include a \$25 late add fee and any additional tuition.

Specific dates and times for all registrations are set by the registrar and published in the schedule of courses.

Michigan Residence Requirements

The following brief summary of the policy adopted by the Board of Trustees of Grand Valley State University applies to all students:

Because students normally come to Grand Valley State University for the primary or sole purpose of attending the institution rather than establishing a domicile in Michigan, those who enroll in Grand Valley as nonresidents will continue to be so classified throughout their attendance as students unless and until they demonstrate that their previous domicile has been abandoned and a Michigan domicile established. No students shall be eligible for classification or reclassification as a resident unless they shall be domiciled in Michigan and have resided in Michigan continuously for not less than six months immediately preceding the first day of classes of the semester for which classification or reclassification is sought.

For purposes of the regulations, resident students are defined as students domiciled in the State of Michigan. Nonresident students are defined as those whose domicile is elsewhere. Students shall not be considered domiciled in Michigan unless they are in continuous physical residence in this state and intend to make Michigan their permanent home, not only while in attendance at Grand Valley but indefinitely thereafter as well, and have no domicile or intent to be domiciled elsewhere.

The residence of a student who otherwise would be classified as a nonresident will follow that of his or her spouse if the spouse is classified as a resident, after the student has met the six-month domicile requirement.

Aliens who have been lawfully admitted for permanent residence in the United States shall not, by reason of that status alone, be disqualified from classification or reclassification as resident, provided, however, that aliens who are present in the United States on a temporary or student visa shall not be eligible for classification or reclassification as residents.

It is the responsibility of the student to register under the proper residence classification, to advise the registrar of possible changes in residence, and to furnish all requested information pertinent thereto.

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Application for reclassification must be filed no later than 10 calendar days following the first day of classes of the semester for which such reclassification is sought. Such application shall set forth in writing a complete statement of the facts upon which the application is based, together with affidavits or other supporting documentary evidence. Failure to file such an application on time shall constitute a waiver of all claims to reclassification or rebates for such semester.

Copies of the complete policy are available upon request from the registrar. Address all questions, concerns, and appeals of status to the registrar. The Residency Appeal Board will hear appeals of reclassification decisions.

Application for Degree

Grand Valley State University awards baccalaureate and master's degrees three times each year—at the conclusion of the fall semester (December), at the conclusion of the winter semester (April), and at the conclusion of the spring/summer session (August).

Degree candidates must notify the registrar of their intention to graduate by completing the Application for Degree card and submitting it to the Student Assistance Center prior to the semester of graduation.

Degree candidates will be allowed 30 days after the last day of the semester or session to complete all requirements and provide evidence of satisfactory completion to the registrar. No degree will be awarded until all temporary grades are removed. After the 30-day deadline, all remaining candidates will be dropped from candidacy status, and those students must reapply for some subsequent degree date. The candidacy deadline for each semester is printed in the schedule of courses. Exceptions to this policy will be based solely on extenuating circumstances beyond the control of the student. Any request for an exception must be made in writing to the registrar.

Commencement

Information concerning commencement announcements, caps and gowns, invitations, tickets, time and place, assembling, and other relevant items will be mailed to all eligible candidates for degree (see Application for Degree section, above) by the Dean of Students prior to the event.

U.S. Department of Veterans' Affairs: Certification for Benefits

Grand Valley complies in full with all reporting requirements outlined by the U.S. Department of Veterans' Affairs. Enrollment, academic status, progress toward degree, conduct, attendance, and graduation requirements are monitored and reported for all benefit recipient students.

Student Records: Statement of Policy

It is the charge of the registrar to maintain complete and accurate academic records for Grand Valley State University and its past and current student populations. Much of the recordkeeping is required by either state or federal mandate. Grand Valley adheres to the compliance guidelines of the Family Educational Rights and Privacy Act of 1974, as amended. A statement of the compliance policy is available in the Student Assistance Center and is published in the *Student Code*.

Academic Waivers

A student who seeks exemption to a policy in this section may present his or her case in writing to the registrar. The registrar will then refer the appeal to the appropriate university official or committee. A final decision will be communicated in writing to the student either by the university official or by the registrar, whichever is most expedient.

Student Responsibility

Each student must fulfill all general and specific requirements and abide by all pertinent academic regulations in order to earn a degree at Grand Valley State University. It is the responsibility of the student to learn the requirements, policies, and procedures governing the program being followed and to act accordingly.

Undergraduate Academic Policies and Regulations

Classification of Students

Freshman: 0–24 semester credits. Sophomore: 25–54 semester credits.
Junior: 55–84 semester credits. Senior: 85 or more semester credits.

Academic Review Policy—Policy takes effect August 26, 2002

Beginning with the fall semester 2002, the following system will be used to evaluate the academic progress of all undergraduate students. Using either the narrative or the table below, students can check their credits earned, cumulative grade point average (GPA) and current grade point average (GPA) to readily determine their academic standing. The table below lists semester hours earned (including hours in transfer) and the minimum grade point average for good standing, probation, jeopardy of dismissal and dismissal.

1. **Good Standing.** Each student must have a cumulative grade point average (GPA) of a 2.000 or higher to be in good standing.
2. **Academic Probation.** A freshman with a cumulative GPA between 1.501 and 1.999 will be placed on probation. A sophomore with a cumulative GPA between 1.801 and 1.999 will be placed on probation.
3. **Jeopardy of Dismissal.** A freshman whose cumulative GPA is 1.500 or lower and a sophomore whose cumulative GPA is 1.800 or lower will be placed in jeopardy of dismissal. Juniors and seniors whose cumulative GPA is below 2.000 will be placed in jeopardy of dismissal.
4. **Dismissal.** Students in jeopardy of dismissal have one semester to raise their cumulative GPA above the dismissal level. If the student's cumulative GPA does not rise above the dismissal level **and** if the current semester GPA is less than a 2.500, the student will be dismissed.
5. **Readmission Following Dismissal.** A dismissed student may apply for readmission after a period of one calendar year. Evidence of maturity and improved attitude toward academics and the written support of the student's academic advisor must support the application for readmission. The Petition to Return Form and supporting documentation must be submitted to the Registrar not less than 30 working days before the first day of classes for the chosen semester. The petition will be considered by the Academic Review Committee. Approval of a petition allows the student to enroll on a conditional basis, as stipulated

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by the Academic Review Committee. The academic standing for a readmitted student will be jeopardy of dismissal.

6. **Due Process Through Appeal.** If a student believes that his or her academic status is in error, he or she may submit a written appeal including written support of his or her academic advisor to the Academic Review Committee, c/o the Registrar. It is in the student's interest to appeal immediately if he or she intends to do so, but a student may do so no later than the first class day of the subsequent semester. All appeals will be considered by the Academic Review Committee.

	Semester Hours Earned*	GPA for Dismissal	GPA for Probation	GPA for Good Standing
Freshman	0–24	1.500 or less	1.501–1.999	2.000 or better
Sophomore	25–54	1.800 or less	1.801–1.999	2.000 or better
Junior	55–84	1.999 or less	not applicable	2.000 or better
Senior	85 or more	1.999 or less	not applicable	2.000 or better

*Including transfer credit hours.

Academic Review—Policy in effect through August 16, 2002

Through the spring/summer session 2002, the following system of evaluating academic progress will be used so that undergraduate students can check earned credits, cumulative grade point average, and percentage of completed work to readily determine their academic standing. The table below lists credits earned and the minimum grade point average for good standing or probation, and for suspension or dismissal.

The following criteria and procedure will be used:

1. **Good Standing.** A student must have a cumulative GPA of 2.0 or better to be in good standing.
2. **Academic Probation.** A student who falls below the GPA required for good standing in any semester will be placed on academic probation.
3. **Academic Suspension.** Any student whose cumulative average is below the grade point for suspension will be allowed one semester in “jeopardy of suspension.” If the student's average does not rise above the suspension level and if the current average is less than 2.01, the student will be suspended for a minimum of one semester.
4. **Readmission Following Suspension.** After a minimum of one semester, a suspended student may apply for readmission. Such application must be submitted to the Student Assistance Center not less than thirty working days before the intended registration. The application will be considered by the Academic Review Committee. The committee will take into consideration the achievement of the applicant in any coursework undertaken, or independent study pursued, as well as any other supportive information submitted in written form. All readmitted students will be allowed to enroll on a conditional basis, as stipulated by the Academic Review Committee. Their review status will be jeopardy of dismissal; refer to No. 5.
5. **Dismissal.** If a student who has been readmitted after suspension continues to fall below the GPA required for continued enrollment, and the student's current GPA is less than 2.01, the student will be dismissed. While academic dismissal in this system does connote a certain finality, a dismissed student

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may, after a period of one calendar year, apply for readmission. Certainly, evidence of maturity and improved attitudes toward college must support any such application. This application for readmission must be submitted to the registrar not less than thirty working days before the intended registration. The application will be considered by the Academic Review Committee.

6. **Due Process Through Appeal.** In the event that students so notified believe the action to be incorrect, they may submit a written appeal to the Academic Review Committee, c/o the Registrar. It is in the student's interest to appeal immediately if he or she intends to do so but no later than the first class day of the subsequent semester. All appeals will be considered by the Academic Review Committee.

Semester Hours Earned*	GPA for Suspension or Dismissal	GPA for Good Standing
1-18	1.10 or less	2.00 or better
19-34	1.30 or less	2.00 or better
35-51	1.50 or less	2.00 or better
52-66	1.70 or less	2.00 or better
67-84	1.90 or less	2.00 or better
85+	1.99 or less	2.00 or better

*Including transfer credit hours.

Deans' List

Undergraduates who earn 12 or more grade point credits with a grade point average of 3.5 or higher in any semester earn a place on the Grand Valley State University Deans' List. The deans send each student a personal letter and the honor is noted on the student's permanent record.

Graduation Honors

Graduation honors will be based on the cumulative grade point average, including the final semester. The following scale is in effect for bachelor's degrees awarded fall 2001, winter 2002, and summer 2002:

Cum laude—3.761–3.865

Magna cum laude—3.866–3.999

Summa cum laude—4.000

Class Attendance

At Grand Valley regular class attendance is considered an essential part of the students' educational experience and a requirement for an adequate evaluation of student academic progress. It is believed that college students, as mature individuals, will recognize the need for regular class attendance and will comply with this requirement.

Class work missed while students are ill or away on faculty-approved business should be made up to the satisfaction of the instructor. Although makeup work will not remove the full adverse effect of the absence in all cases, faculty members will cooperate with students in their attempt to make up their loss when an absence is unavoidable. The degree of the effect upon grades will vary with the nature and amount of work missed and must be measured according to the instructor's best judgment. In case of excessive absences, the instructor may refuse to grant credit for the course.

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Student Credit Load

Most courses carry three hours of credit. To complete a bachelor's degree in four years, a student should carry a minimum of 15 hours each semester. First-semester freshmen and students on academic probation may not carry loads greater than 20 credits per semester.

Students may take extended course loads, those of more than 20 credits, if such requests have been approved by the Dean of Academic Resources and Special Programs.

Advising/Degree Audit

All undergraduate programs recommend that their degree-seeking students meet with an assigned faculty advisor periodically to ensure that there are no misunderstandings regarding program requirements.

Credit by Examination

In some cases degree-seeking students may be granted advanced placement or receive college credit by examination. Tests are available to determine levels of competence in certain subject areas. The following tests are available:

Credit by examination in any of the noted programs has the following limitations:

1. Examination credit will be awarded if the student has not previously registered for the course in question at Grand Valley or elsewhere.
2. The credits, while counting toward graduation, will not be used in computing the GPA.
3. In keeping with the senior residency requirement, examination credit will not be granted within the last 30 hours toward the degree.
4. The maximum amount of credit by examination that may be applied toward the baccalaureate is 32 hours, eight of which may be in the major area.

Advanced Placement Program (AP). A program sponsored by the College Entrance Examination Board (CEEB). Generally, credit is granted for scores of 3, 4, or 5 but is determined by the appropriate academic department.

College Level Examination Program (CLEP). Credit is granted for subject examinations offered by CLEP; however, no credit is granted for the CLEP general examination. Required minimum scores are available on request from the Admissions Office or the Student Assistance Center. Native speakers of a language other than English will not be granted CLEP or AP exam credit for that language.

Defense Activity for Non-Traditional Educational Support (DANTES). Grand Valley will also accept for credit certain DANTES college-level courses and college subject matter examinations. Specifics are available upon request from the Office of Admissions or the Student Assistance Center.

Concurrent Enrollment with Michigan Community Colleges

Concurrent enrollment allows students at both Grand Valley State University and those attending Michigan community colleges to make full use of the variety of courses offered by both institutions. Through concurrent enrollment, students have more scheduling options, more choice of course locations, and many more courses available. Students may take courses at both institutions simultaneously or alternate enrollment between them. Financial aid may also be available to students who qualify.

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Students must be admitted to both institutions. Students will follow the policies in place at each school they attend. GVSU has waived the rule that requires a student to have satisfied the MACRAO degree prior to taking their first course at GVSU. The benefits of the MACRAO agreement will be honored upon verification of completion of the degree. Refer to the General Education Requirements section for further clarification.

Internships

An internship is experiential learning for credit taking place outside the classroom and directed by a field supervisor and a Grand Valley State University faculty member. A student may enroll for a maximum of 15 credits of internship. An internship must be planned the semester before it takes place.

Orientation

Attendance at an orientation program is required of all degree-seeking undergraduate students before their first semester of attendance. The purposes are to welcome new students, to introduce them to each other and to faculty members with whom they will be working, to administer placement testing, and to assist them in planning programs of study. The final step of orientation is the preparation of a schedule of classes approved by a faculty advisor and completion of the registration process. A schedule of the orientation dates is mailed to all new students well in advance of their term of entrance.

New freshman students are urged to continue their orientation to Grand Valley by enrolling in **FS 100, Freshman Seminar**. This one-credit course helps students consider the nature of education and the range of intellectual and support resources available at the university.

Degree Requirements

The following requirements apply to students who begin their studies at Grand Valley State University in Fall 2000 and thereafter **AND** to students who enter GVSU with a completed MACRAO through Spring/Summer semester 2001.

1. A minimum of 120 semester hours.
2. A cumulative GPA of at least 2.0.
3. A graduation major with at least a 2.0 average.
4. A minor, if elected, with a 2.0 GPA.
5. Basic skills requirement.
6. General education requirements.
7. Degree cognate for bachelor of arts or bachelor of science degree.
8. Capstone course.
9. The *last* 30 semester hours toward a baccalaureate degree must be earned in GVSU courses.
10. A minimum of 58 semester hours must be earned at a senior institution.
11. A minimum of 12 Grand Valley earned semester hours must be included in the major (six for the minor).

1. Semester Hours Requirements.

Students are required to complete at least 120 semester hours of credit for graduation. Courses numbered below 100 and taken after summer 1983 do not apply toward the 120 needed for graduation.

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2. Cumulative 2.0 GPA.

For graduation a student must earn a cumulative GPA of at least a 2.0 based on all coursework attempted at Grand Valley. Some major programs stipulate a GPA requirement exceeding the minimum. Refer to the department entries for specifics.

3. Major with a 2.0 GPA.

A student must elect a major in one or more of the academic units empowered to present candidates for the undergraduate degree. A cumulative GPA of 2.0 in the major is the required minimum for graduation. Some majors stipulate requirements exceeding the minimum. Refer to the department entries for program specifics.

4. Minor with a 2.0 GPA.

A minor is not required for graduation. If a student chooses to complete a minor, a cumulative GPA of 2.0 is the required minimum for graduation. Some minors stipulate requirements exceeding the minimum. Refer to the department entries for program specifics.

5. Basic Skills Requirements.

Grand Valley State University is concerned that all graduates have the skills for understanding numerical data and mathematical reasoning, for writing lucidly and expressively, and for reading critically and actively. To achieve these goals, the university requires specific competency levels in mathematics, writing, and reading as indicated by the completion of specific courses or by scores on placement tests.

- a. Basic Mathematics Requirement: Mathematics 110.
- b. Basic Reading Requirement: Entering students whose test score places them in English 095 must enroll in that course during their first semester at Grand Valley.
- c. Freshman Writing Requirement: Writing 150 with a grade of C (not C-) or better.
- d. Junior-level Writing Requirement: A satisfactory score on the junior-level assessment essay or a grade of C (not C-) or better in Writing 305.

Students should complete the mathematics, reading, and freshman writing requirements within the first two years, or the first 60 semester hours, of their undergraduate coursework.

The junior-level writing requirement should be fulfilled within the first three years or 90 semester hours of undergraduate work. Two options are available to fulfill this requirement: achieve a satisfactory score on the junior-level assessment essay, or pass WRT 305 with a grade of C (not C-) or higher. Students are eligible to write the assessment essay after earning a grade of C (not C-) in WRT 150, are registered for or have completed one SWS course, and have registered for their 55th overall semester hour. Students are eligible to enroll in WRT 305 after receiving a grade of C (not C-) in both WRT 150 and one SWS course and upon reaching junior standing. Placement testing is offered three times each semester, with three test times on each date: 9 a.m.–11 a.m.; 11:30 a.m.–1:30 p.m.; and 2 p.m.–4 p.m. All are held on Saturdays, are administered in a computer lab, and must be typed. Please contact the Academic Resource Center at (616) 895-3588 for information on scheduled test dates and to register to take the exam.

6. General Education Requirements

At Grand Valley State University, all students, regardless of their major, must complete the same general education curriculum. This program enriches and complements the student's major and electives and is a significant part of the baccalaureate experience. Grand Valley State University maintains that a complete education involves more than preparation for a particular degree. A career occurs in the context of a life, and a sound general education helps one "make a life" as well as "make a living." The focus of our General Education Program is to provide students with an education that balances depth with breadth, the specialized with the general. The General Education Program helps students become literate in a sophisticated way in a number of disciplines, and it fosters their ability to make connections across various domains of knowledge. GVSU is dedicated to making sure that our students, via their academic majors, become competent specialists in their fields of endeavor. An equally pressing priority is that our graduates also possess the marks of a generally educated person: that they will have acquired the broad knowledge and life skills that will allow them to be informed and thoughtful people. These ideals coexist within our institution, and together they produce people who can contribute to their own well being, their communities, their professions, and the world in which they live.

The mission of the General Education Program is to provide a broad-based liberal education experience that fosters lifelong learning and informed citizenship. The program prepares students for intelligent participation in public dialogues that consider the issues of humane living and responsible action in local, national, and global communities.

Goals of the General Education Program

The General Education Program teaches both the skills and the general body of knowledge needed for students to intelligently participate in public discourse.

Knowledge Goals

1. The major areas of human investigation and accomplishment—the arts, the humanities, the mathematical sciences, the natural sciences, and the social sciences.
2. An understanding of one's own culture and the cultures of others.
3. The tradition of humane inquiry that forms moral and ethical choices.

Skills Goals

1. To engage in articulate expression through effective writing and speaking.
2. To think critically and creatively.
3. To locate, evaluate, and use information effectively.
4. To integrate different areas of knowledge and view ideas from multiple perspectives.

The Structure of the General Education Program

The General Education Program is divided into three sections: the Foundations Categories, the Cultural Emphasis Requirements, and the Thematic Group.

The Foundations Categories

Courses in the **Foundations Categories** introduce students to the major areas of human thought and endeavor. These courses present the academic disciplines as different ways of looking at the world, they introduce students to the varied methods used to create knowledge, and they acquaint students with major questions

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and principles of the field. The pedagogy of the Foundation Categories helps students develop the essential skills of creative and critical thinking, articulate expression, and information literacy.

The Cultural Emphasis Requirements

An important component of education is realizing that how we know is as important as what we know. The study of culture prompts students to recognize themselves as cultural beings, and to understand the diverse ways in which people organize life and perceive the world. Courses that receive the **Cultural Emphasis Designations** focus on the values, perceptions, history, and social life of various cultures and subcultures in the United States and in other countries or regions. All classes also help students develop the skills of creative and critical thinking, articulate expression, and information literacy.

The Thematic Group

Preparing for responsible participation in public discourse requires that people become conscious of both complementary and competing viewpoints and recognize that any issue or problem can be viewed from multiple perspectives. Cross-disciplinary study helps students integrate knowledge from various disciplines through the study of a major area. The thematic component of the General Education Program builds on the knowledge gained in the Foundation Categories. Each thematic group consists of interrelated courses that explore an idea from three different perspectives and examines the connections that exist, actually or potentially, among our various ways of understanding major ideas. The thematic courses continue to address creative and critical thinking, articulate expression, and information literacy. In addition, these courses focus on integrative skills.

General Education Requirements

Foundation Categories

- The Arts (one course)
- The Humanities
 - Philosophy and Literature (one course)
 - Historical Perspectives (one course)
- The Mathematical Sciences (one course)
- The Natural Sciences (one of the science courses must contain a lab)
 - Physical Sciences (one course)
 - Life Sciences (one course)
- The Social Sciences (two courses from two disciplines)

Cultural Emphasis Requirements

- One course with the World Perspectives designation
- One course with the United States Diversity designation

Thematic Group

- Each student will select a theme and choose three courses from that theme. The courses must come from three different disciplines.

I. Foundation Categories

The Arts —select one

ART 101	Introduction to Art
COM 225	Film Cultures
CTH 101	Introduction to Theatre
MUS 100	Introduction to Music Literature

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MUS 129 Fundamentals of Music
PHI 220 Aesthetics

Philosophy and Literature —select one

COM 202 Critical Interpretation
CLA 201 Classical Literature
ENG 203 World Literature
ENG 205 Literatures in English
ENG 212 Introduction to Shakespeare
LIB 100 Introduction to Liberal Studies
PHI 101 Introduction to Philosophy
PHI 102 Ethics
RST 331 Russian Literature in Translation (1800–1880)
RST 333 Russian Literature in Translation (1932 to present)

Historical Perspectives —select one

CLA 121 Greek Civilization
HST 101 Introduction to World Civilizations
HST 102 Introduction to European Civilizations
HST 103 Introduction to American Civilizations
HST 203 World History to 1500
HSC 201 The Scientific Revolution
HSC 202 The Technological Revolution

Mathematical Sciences —select one

CS 160 Programming with Visual Basic
MTH 122 College Algebra
MTH 123 Trigonometry
MTH 125 Survey of Calculus
MTH 131 Introduction to Mathematics
MTH 201 Calculus and Analytic Geometry I
MTH 221 Mathematics for Elementary Teachers I
PHI 103 Logic
STA 215 Statistics I

Physical Sciences —Select one from Physical Sciences and one from Life Sciences. One of those courses must contain a lab.

CHM 102 Chemistry and the Environment
GEO 100 Environmental Geology
GEO 105 Living with the Great Lakes
CHM 109 Introductory Chemistry
CHM 115 Principles of Chemistry I
CHM 201 Introduction to Chemical Sciences
GEO 111 Exploring the Earth
NRM 140 The Climatic Factor
PHY 105 Descriptive Astronomy
PHY 201 Inquiry: The Mechanical and Thermal World
PHY 204 Inquiry: Electricity, Magnetism, and Optics

Life Sciences —Select one from Life Sciences and one from Physical Sciences. One of those courses must contain a lab.

ANT 206 Human Origins
BIO 105 Environmental Science
HS 100 Human Health and Disease
BIO 103 The Biology of People
BIO 107 Great Lakes Changing Systems
BIO 111 General Biology I

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BIO 112	General Biology II
HS 202	Anatomy and Physiology

Social Sciences—Select two from different disciplines.

ANT 204	Introduction to Cultural Anthropology
ANT 220	Introduction to Archaeology
CJ 101	Justice and Society
ECO 100	Current Economic Issues
ECO 210	Introductory Macroeconomics
ECO 211	Introductory Microeconomics
GPY 220	Cultural Geography
GPY 235	World Regional Geography
PA 270	Public Administration
PLS 102	American Government and Politics
PLS 103	Issues in World Politics
PSY 101	Introduction to Psychology
SOC 201	Introduction to Sociology
SOC 280	Social Problems
SW 150	Human Needs in a Complex Society
WGS 200	Introduction to Gender Studies

II. Cultural Designations

World Perspectives Designation—select one

ANT 204	Introduction to Cultural Anthropology
ANT 215	Origins of Civilization
ANT 360	Ethnography of Mesoamerica
ANT 370	Cross-cultural Perspectives on Gender
CHI 202	Intermediate Chinese II
EAS 201	East Asia in the Contemporary World
PHI 210	Eastern Philosophy
ENG 204	Mythology
FRE 202	Intermediate French II
GER 202	Intermediate German II
GRK 202	Intermediate Greek II
GPY 235	World Regional Geography
HST 210	Empire, Culture, and Conflict
HTM 175	International Food and Culture
JPN 202	Intermediate Japanese II
LAS 210	Exploring Latin America
LAT 202	Intermediate Latin II
MES 201	Introduction to the Middle East
PLS 281	Comparative Political Systems: Canada
PLS 282	Government and Politics of Russia and Eastern Europe
PLS 283	Government and Politics of China and Japan
RST 225	Introduction to Russian Culture
RUS 202	Intermediate Russian II
SPA 202	Intermediate Spanish II
SPA 310	Spanish Civilization and Culture
SPA 311	Spanish American Civilization and Culture I
SS 211	Peoples of the World
SS 270	Gender and Family in Third World Development
SS 315	Comparative Religions
SS 322	Militarism
SS 324	Urbanization

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U.S. Diversity Designation —select one

AAA 352	Black Women's Cultures and Communities
ED 225	Diversity in Education
LIB 350	The Immigrant Experience
MGT 355	The Diversified Workforce
SOC 280	Social Problems
SOC 381	Class, Race, and Gender
SOC 382	Minority and Ethnic Relations
SPA 313	US Latino/a Civilization and Culture
SS 311	Native Peoples of North America
SS 323	The Family
US 101	Diversity in the United States

III. Themes— Select a theme and complete three courses from that theme. The courses must be from different disciplines.

Theme 01—Perspectives from the Outside: Marginality and Difference

BIO 329	Evolution of Social Behavior
ENG 335	Literature of American Minorities
HST 376	History of Witches and Witch-Hunting
LIB 350	The Immigrant Experience
MGT 355	The Diversified Workforce
SOC 250	Perspectives on Madness
SS 384	Social Inequalities

Theme 02—Changing Ideas: Changing Worlds

ENG 383	Make It New: Literary Modernism
GEO 310	Plate Tectonics
HSC 201	The Scientific Revolution
HST 364	Renaissance and Reformation Europe
PHI 370	Feminist Philosophy
PHY 303	The World after Einstein

Theme 03—Society and the Media

COM 220	Media Literacy
COM 372	Global Communications
LIB 373	American Society and Mass Culture
PLS 340	American Political Opinion and the Mass Media
PSY 349	Psychology Applied to Media
SOC 366	Sociology of Media

Theme 04—The Human Journey

BIO 103	The Biology of People
LIB 314	Life Journey
PHI 340	Mind, Brain and Consciousness
PSY 364	Life Span Development
PSY 377	Psychology of the Quest

Theme 05—Making War and Peace

CJ 405	Terrorism
ENG 384	Literary Responses to War and Peace
HST 317	History of American Foreign Policy
HST 377	History of Warfare
LIB 345	War in the Nuclear Age
PLS 211	International Relations
SS 322	Militarism

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Theme 06—Gender and Identity

AAA 352	Black Women's Cultures and Communities
BIO 325	Human Sexuality
CJ/WGS 320	Crimes Against Women
CJ/WGS 310	Sexual Orientation, Law, and Policy
LIB 325	Understanding the Gay Life Cycle
SOC 375	Perspectives on Masculinity

Theme 07—Revolution and Evolution in the Americas

ANT 355	On the Move: Migration in the Americas
ANT 360	Ethnography of Mesoamerica
BIO 310	Biological Diversity of the Americas
ENG 385	Writing and Revolution in the Americas
GEO 350	Geology's Great Debate in the New World
HST/LAS 374	Revolution in the Americas

Theme 08—Gender, Society and Culture

ANT 370	Cross-cultural Perspectives on Gender
ECO 350	Gender and Economics
HST 371	The History of Gender, Family, and Sexuality
LS/WGS 370	Women and the Law
PHI 370	Feminist Philosophy
SS 382	Love, Sex, and Gender

Theme 09—Religion

CLA 315	Ancient Religions
HST 342	History of East Asian Religions
LIB 335	Scripture as Literature
PHI 302	Medieval Great Philosophers
PHI 310	Philosophy of Religion
SS 315	Comparative Religions

Theme 10—Ethics

BIO 328	Biomedical Ethics
BIO 338	Environmental Ethics
COM 438	Communications Ethics
MGT 438	Business Ethics
PHI 325	Ethics in Professional Life
PLS 338	Citizenship

Theme 11—Earth and Environment

ANT 340	Culture and Environment
BIO 105	Environmental Science
ECO 345	Environmental and Resource Economics
ENG 382	Nature Writing
GEO 300	Geology and the Environment
LIB 330	The Idea of Nature
NRM 451	Natural Resource Policy

Theme 12—Freedom and Social Control

BIO 311	The Biological Bases of Society
CJ 325	Criminal Justice and Human Rights
ENG 392	Language and Power
HST 372	From Slavery to Freedom
LIB 340	Utopias: Ideal Worlds
PHI 320	Social and Political Philosophy
SOC 392	Social Deviance and Social Control

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Theme 13—The U.S. Civil Rights Movement

AAA 305	Perspectives on the Black Arts Movement
ENG 381	Regional Discourses on the Civil Rights Movement
HST 316	History of the Civil Rights Movement
LIB 320	Social Autobiography
PLS 307	American Constitutional Law II
SOC 333	Sociology of the Civil Rights Movement

Theme 14—Death and Dying

ANT 316	Death, Burial, and Culture
ENG 386	Literary Responses to Death and Dying
HS 374	Physiological Aspects of Death and Dying
NUR 354	An Overview of End of Life Care
PHI 341	Philosophy of Death and Dying
SPA 307	Death and Dying in Hispanic Literature
SS 381	Death and Dying

Theme 15—Global Change: Integration and Fragmentation

CTH 373	Global Arts Performance and Management
ECO 369	International Economic Issues
GPY 335	Geographic Patterns of Global Development
HST 386	Europe since 1945
HTM 202	International Tourism
MGT 466	International Management and Multinational Corporations
PLS 315	International Political Economy

Theme 16—Health, Illness, and Healing

ANT 320	Culture and Disease
BIO 309	Plants and Human Health
HST 370	History of Medicine and Health
PSY 368	Psychology of Physical Disabilities
SOC 356	Sociology of Health Care
SW 322	Health Care and Social Services

Theme 17—Cities

AAA 315	From Field to Factory: The Great African American Migration
ECO 435	Urban Economics
HST 327	History of the American Urban Society
PA 307	Local Politics and Administration
SS 324	Urbanization

Theme 18—Creativity: Ideas and Innovation

CAP 315	Advertising Copywriting
CTH 300	Storytelling
ECO 342	Game Theory
EGR 304	Creativity and Innovation
LIB 310	Creativity
MGT 345	Teambuilding

Theme 19—Perception

HST 320	American Indians
PHI 440	Epistemology
PHY 307	Wave Physics
PSY 361	Perception
SOC 357	Sociology of Religion

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Theme 20—The American Mosaic

HST 315	Latinos: Forging of Ethnic Identities
MUS 300	Exploring American Music
SOC 381	Class, Race, and Gender
SS 311	People of Native North America
SW 300	Pluralism in the Human Services

Supplemental Writing Skills

Because the ability to write clearly is a means for critical thinking, exploration of values, and self-discovery—goals of the general education program—the university requires that all students take two Supplemental Writing Skills courses. These courses, which have Writing 150 with a grade of C (not C-) or better as a prerequisite, are designated SWS in each semester's course schedule. *Please read the schedule carefully, because not all sections of a multisection course are necessarily SWS sections. Those that are not designated SWS do not result in SWS credit.* The SWS courses need not add to a student's program because they may also count as courses in general education or the major.

The two SWS courses may not be taken from the same department or school. One must be from outside the student's major unit. The first SWS course, normally part of the general education requirement, must be taken before completing the junior-level writing requirement. The second course, normally taken in the student's major and normally at the 300 or 400 level, is taken after completing the junior-level writing requirement. Transfer students with a MACRAO associate's degree must take one SWS course (normally in the student's major).

Courses that have received the SWS designation are not merely courses that require written assignments; they adhere to certain guidelines. Students turn in a total of at least 3,000 words of writing during the term. Part of that total may be essay exams, but a substantial amount of it is made up of finished essays or reports or research papers. The instructor works with the students on revising drafts of their papers, rather than simply grading the finished piece of writing. At least four hours of class time are devoted to writing instruction. For a three-credit course at least one-third of the final grade is based on the writing assignments.

Students must pass the writing skills courses (Writing 150 and the two SWS courses) with a grade of C or better in each course. Students with a grade of C- or lower in an SWS course may repeat the course or pass another SWS course with a grade of C or better before graduation. Transfer students with the MACRAO associate's degree must pass one SWS course with a grade of C or better.

Questions regarding the SWS program are dealt with by the director, through the Academic Resource Center.

Honors Program

Honors Program Students may satisfy the General Education program through the Honors Program curriculum.

Transfer Students

Students who transfer to Grand Valley with the MACRAO approved associate of arts or science degree from a Michigan public community college have satisfied the Foundation Categories of the General Education Program, the Writing 150 Basic Skills requirement, and one Supplemental Writing Skills (SWS) course. Transfer students with a MACRAO are required to complete the following Basic

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Skills requirements: demonstrate proficiency in Mathematics (MTH 110); fulfill the junior-level writing requirement (a satisfactory score on the junior-level assessment essay or a grade of C or better in Writing 305); and one SWS course in their major or division. In addition, transfer students with a MACRAO must also fulfill the following general education requirements: the two-course Cultural Emphasis requirement; and one three-course theme.

7. B.A. or B.S. Cognate.

In addition to the basic skills and the general education requirements, the B.A. degree requires a third-semester proficiency in a foreign language of the student's choice. A placement test is available to students with pre-college competence in a foreign language who desire advanced placement or waiver of the foreign language requirement.

In addition to the basic skills and the general education requirements, the B.S. degree requires a three-semester sequence of courses that emphasize either natural science or social science methodology as prescribed by the major department. See the department entries for specific details.

8. Capstone Course.

Each major curriculum includes a senior-level capstone course aimed at providing the student with a broad and comprehensive perspective on the fundamental assumptions, issues, and problems of the field. See the department entries for specific details.

9. Required Hours at Grand Valley.

Graduation from Grand Valley State University requires that the completion of the last 30 semester hours toward a baccalaureate degree must be earned at Grand Valley or in Grand Valley programs and courses taught off campus by Grand Valley faculty.

10. Senior Institution Requirement.

Regardless of the number of transfer credits accepted by Grand Valley from junior or community colleges, a baccalaureate degree must include a minimum of 58 semester hours from a senior (a four-year degree-granting) institution.

11. Transfer Hours for Major and Minor.

Regardless of the number of transfer hours accepted by Grand Valley from other institutions, transfer students must complete a minimum of 12 hours in the unit conferring the major (six for the minor).

General Education Transition Policy

1. Freshmen and transfer students who enter GVSU for the first time during or after the Fall 2000 semester must complete the new general education requirement.
2. Freshmen and transfer students who entered GVSU for the first time before the Fall of 2000 will have through Summer 2007 to graduate using the old general education requirements.
3. The following transition document will apply to those freshmen and transfer students who entered GVSU before the Fall of 2000 and who either do not graduate before the end of Summer 2007 or who choose to graduate using the new general education requirements.
4. Reasonable substitutions for old general education requirements can be proposed to the Dean of the Academic Resource Center.

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- Appeals to this policy and/or the identified deadlines for completion of general education requirements are to be made to the Academic Resource Center and require the approval of the Dean of Academic Resources.

Foundations Categories

The Arts	Arts and Humanities Group A (AH/A)
Philosophy and Literature	Arts and Humanities Group B (AH/B)
Historical Perspectives	College Section C: History of Western Civilization (CGE/C)
Mathematical Sciences	College Section A: Logical and Quantitative Reasoning (CGE/A)
Physical Sciences	Natural Sciences: Group A Physical Sciences (NS/A)
Life Sciences	Natural Sciences: Group B Life Sciences (NS/B)

Cultural Designations

World Perspective Designation	College Section B: Foreign Culture and Multicultural Approaches (CGE/B)
U.S. Diversity Designation	College Section B: Foreign Culture and Multicultural Approaches (CGE/B)

Themes	N/A
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Degree Requirements

These degree requirements apply to students who began their studies at Grand Valley State University no later than the Spring/Summer semester 2000 AND to those students who enter through Spring/Summer semester 2001 with a completed MACRAO.

- A minimum of 120 semester hours.
- A cumulative GPA of at least 2.0.
- A graduation major with at least a 2.0 average.
- A minor, if elected, with a 2.0 GPA.
- Basic skills requirement.
- General education requirements.
- Degree cognate for bachelor of arts or bachelor of science degree.
- Capstone course.
- The *last* 30 semester hours toward a baccalaureate degree must be earned in GVSU courses.
- A minimum of 58 semester hours must be earned at a senior institution.
- A minimum of 12 Grand Valley earned semester hours must be included in the major (six for the minor).

1. Semester Hours Requirements.

Students are required to complete at least 120 semester hours of credit for graduation. Courses numbered below 100 and taken after summer 1983 do not apply toward the 120 needed for graduation.

2. Cumulative 2.0 GPA.

For graduation a student must earn a cumulative GPA of at least a 2.0 based on all coursework attempted at Grand Valley. Some major programs stipulate a GPA requirement exceeding the minimum. Refer to the department entries for specifics.

3. Major with a 2.0 GPA.

A student must elect a major in one or more of the academic units empowered to present candidates for the undergraduate degree. A cumulative GPA of 2.0

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in the major is the required minimum for graduation. Some majors stipulate requirements exceeding the minimum. Refer to the department entries for program specifics.

4. Minor with a 2.0 GPA.

A minor is not required for graduation. If a student chooses to complete a minor, a cumulative GPA of 2.0 is the required minimum for graduation. Some minors stipulate requirements exceeding the minimum. Refer to the department entries for program specifics.

5. Basic Skills Requirements.

Grand Valley State University is concerned that all graduates have the skills for understanding numerical data and mathematical reasoning, for writing lucidly and expressively, and for reading critically and actively. To achieve these goals, the university requires specific competency levels in mathematics, writing, and reading as indicated by the completion of specific courses or by scores on placement tests.

- a. Basic Mathematics Requirement: Mathematics 110.
- b. Basic Reading Requirement: Entering students whose test score places them in English 099 must enroll in that course during their first semester at Grand Valley.
- c. Freshman Writing Requirement: Writing 150 with a grade of C (not C-) or better.
- d. Junior-level Writing Requirement: A satisfactory score on the junior-level assessment essay or a grade of C (not C-) or better in Writing 305.

Students should complete the mathematics, reading, and freshman writing requirements within the first two years, or the first 60 semester hours, of their undergraduate coursework.

The junior-level writing requirement should be fulfilled within the first three years or ninety semester hours of undergraduate work. Two options are available to fulfill this requirement: achieve a satisfactory score on the junior-level assessment essay, or pass WRT 305 with a grade of C (not C-) or higher. Students are eligible to write the assessment essay after earning a grade of C (not C-) in WRT 150, are registered for or have completed one SWS course, and have registered for their 55th overall semester hour. Students are eligible to enroll in WRT 305 after receiving a grade of C (not C-) in both WRT 150 and one SWS course and upon reaching junior standing. Contact the Academic Resource Center at (616) 895-3588 for more information.

6. General Education Requirements.

At Grand Valley State University, all students, regardless of their major, must complete the same general education curriculum. This program enriches and complements the student's major and electives and is a significant part of the baccalaureate experience.

Grand Valley's general education program consists of offerings in two broad sections: college offerings and divisional offerings.

The college section is divided into four groups, and students select one course from each group. The courses in Group A are designed to teach students to reason formally. Courses in Group B are designed to provide students with an intellectual encounter with foreign and multicultural perspectives. The courses in

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Group C explore the history of Western civilization. In the courses in Group D, students are encouraged to examine values and ideas critically.

The divisional section introduces students to the major areas of human knowledge and accomplishment. Students select two courses in the Natural Sciences, two in the Social Sciences, and two in Arts and Humanities.

The general education requirements are designed to build into the baccalaureate degree of all students at Grand Valley an intellectual, aesthetic, and philosophical experience that will enrich their lives and enable them to be productive and responsible citizens of a democratic society. In order to graduate, each degree candidate must complete the general education program described below. The specific courses in the college and divisional sections are listed here. The course descriptions are found in the departmental listings in the catalog.

The College Section (one course in each group)

- A. Study of logical and mathematical quantitative reasoning.
- B. Foreign culture and multicultural approaches.
- C. History of Western civilization.
- D. Critical examinations of values and major ideas.

Group A (CGE/A): Quantitative and Logical Reasoning

CS 160	Programming with Visual BASIC
CS 162	Computer Science I
MTH 122	College Algebra
MTH 123	Trigonometry
MTH 125	Survey of Calculus
MTH 131	Introduction to Mathematics
MTH 201	Calculus and Analytic Geometry I
STA 215	Introduction to Applied Statistics
MTH 221	Mathematics for Elementary Teachers I
PHI 103	Logic

Group B (CGE/B): Foreign Culture and Multicultural Approaches

AAA 340	African American Culture and Social Thought
ANT 215	Origins of Civilization
ANT 370	Cross-cultural Perspectives on Gender
CHI 102	Elementary Chinese II
EAS 201	East Asia in the Contemporary World
ENG 204	Mythology
FRE 102	Elementary French II
FRE 150	Intensive Elementary French
FRE 225	Exploring France
GER 102	Elementary German II
GPY 235	World Regional Geography
GRK 102	Elementary Greek
HST 210	Empire, Culture, and Conflict
JPN 102	Elementary Japanese II
LAS 210	Exploring Latin America
LAT 102	Elementary Latin II
LAT 150	Intensive Elementary Latin
LIB 210	Immigrant Experience in the United States
MES 201	Introduction to the Middle East
MGT 355	The Diversified Workforce
PLS 281	Comparative Politics: Canada
PLS 282	Government and Politics of Russia and Eastern Europe
PLS 283	Government and Politics of China and Japan

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RST 225	Introduction to Russian Culture
RUS 102	Elementary Russian II
SPA 102	Elementary Spanish II
SPA 150	Intensive Elementary Spanish
SS 211	Peoples of the World
SS 270	Gender and Family in Third World Development
SS 280	Comparative Religions
SS 311	The American Indian
SS 322	Militarism
SS 323	The Family
SS 324	Urbanization
US 101	Diversity in the United States

Group C (CGE/C): History of Western Civilization

HSC 201	The Scientific Revolution
HSC 202	The Technological Revolution
HSC 206	Science and Culture in the West
HSC 101	Introduction to World Civilizations
HST 102	European Civilization
HST 103	American Civilization
HST 203	World History to 1500 A.D.
HST 204	World History since 1500 A.D.
HST 205	American History to 1877
HST 206	American History since 1877
HST 365	Early Modern Europe

Group D (CGE/D): Critical Examination of Values and Major Ideas

BIO 336	Bioethics
LIB 100	Introduction to Liberal Studies
LIB 340	Utopias
LIB 345	War in the Nuclear Age
PHI 102	Ethics
PHI 325	Ethics in the Professions
PHY 120	Einstein's Universe
PSY 311	Controversial Issues in Psychology
SS 101	The Idea of a Social Science
SS 381	Death and Dying
SS 382	Love, Sex, and Gender
SS 383	Education and American Society
SS 384	Social Inequalities
WGS 200	Perspectives on Gender

Arts and Humanities Section (one course in each group)

- A. Exploration of art, music, and theatre.
- B. Exploration of literature.

Group A (AH/A): Exploration of Art, Music, and Theatre

ART 101	Introduction to Art
COM 348	Film Theories
CTH 101	Introduction to Theatre
MUS 100	Introduction to Music Literature
MUS 129	Fundamentals of Music
PHI 220	Aesthetics

Group B (AH/B): Exploration of Literature

COM 202	Critical Interpretation
CLA 201	Classical Literature
ENG 203	World Literature

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ENG 205	Literatures in English
ENG 212	Introduction to Shakespeare
LIB 314	Life Journey
PHI 101	Introduction to Philosophy
RST 331	Russian Literature in Translation, 1800–1880
RST 333	Russian Literature in Translation, 1932 to Present

Natural Sciences Section (one course in each of the two groups. One of the courses selected must include a laboratory component)

- A. Physical sciences.
- B. Life sciences.

Group A (NS/A): Physical Sciences

CHM 102	Chemistry and Society
CHM 109	Introductory Chemistry (lab)
CHM 115	Principles of Chemistry I (lab)
CHM 201	Introduction to Chemical Sciences (lab)
GEO 100	Environmental Geology
GEO 105	Living with the Great Lakes
GEO 111	Exploring the Earth (lab)
NRM 140	The Climatic Factor (lab)
PHY 105	Descriptive Astronomy (lab)
PHY 201	Inquiry: The Mechanical and Thermal World (lab)
PHY 204	Inquiry: Electricity, Magnetism, and Optics (lab)

Group B (NS): Life Sciences

ANT 206	Human Origins
BIO 103	The Biology of People (lab)
BIO 105	Environmental Science
BIO 107	The Great Lakes and Other Water Resources (lab)
BIO 111	General Biology I (lab)
BIO 112	General Biology II (lab)
HS 100	Human Health and Disease
HS 202	Anatomy and Physiology (lab)

Social Sciences Section (two courses, each from a different group and from a different discipline)

- A. Human behavior and experience.
- B. Social and cultural phenomena.
- C. Formal institutions.

Group A (SS/A): Human Behavior and Experience

PSY 101	Introduction to Psychology
PSY 315	Psychology of Sex Differences
SOC 250	Perspectives on Madness

Group B (SS/B): Social and Cultural Phenomena

ANT 204	Introduction to Cultural Anthropology
ECO 100	Current Economic Issues
ECO 211	Introductory Microeconomics
GPY 220	Cultural Geography
SOC 201	Introduction to Sociology
SOC 280	Social Problems
SS 260	Human Aggression and Cooperation I

Group C (SS/C): Formal Institutions

CJ 101	Justice and Society
ECO 210	Introductory Macroeconomics

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MGT 339	Business and Society
PLS 102	American Government and Politics
PLS 103	Issues in World Politics
SS 261	Human Aggression and Cooperation II
SW 150	Human Needs in a Complex Society

Supplemental Writing Skills

Because the ability to write clearly is a means for critical thinking, exploration of values, and self-discovery—goals of the general education program—the university requires that all students take two Supplemental Writing Skills courses. These courses, which have Writing 150 with a grade of C (not C-) or better as a prerequisite, are designated SWS in each semester's course schedule. *Please read the schedule carefully because not all sections of a multi-section course are necessarily SWS sections. Those that are not designated SWS do not result in SWS credit.* The SWS courses need not add to a student's program because they may also count as courses in general education or the major.

The two SWS courses may not be taken from the same department or school. One must be from outside the student's major unit. The first SWS course, normally part of the general education requirement, must be taken before completing the junior-level writing requirement. The second course, normally taken in the student's major and normally at the 300 or 400 level, is taken after completing the junior-level writing requirement. Transfer students with a MACRAO associate's degree must take one SWS course (normally in the student's major).

Courses that have received the SWS designation are not merely courses that require written assignments; they adhere to certain guidelines. Students turn in a total of at least 3,000 words of writing during the term. Part of that total may be essay exams, but a substantial amount of it is made up of finished essays or reports or research papers. The instructor works with the students on revising drafts of their papers, rather than simply grading the finished piece of writing. At least four hours of class time are devoted to writing instruction. For a three-credit course at least one third of the final grade is based upon the writing assignments.

Students must pass the writing skills courses (Writing 150 and the two SWS courses) with a grade of C or better in each course. Students with a grade of C- or lower in an SWS course may repeat the course or pass another SWS course with a grade of C or better before graduation. Transfer students with the MACRAO associate's degree must pass one SWS course with a grade of C or better.

Questions regarding the SWS program should be addressed to the director, through the Academic Resource Center.

Honors Program

Honors Program students may satisfy their general education requirements through the Honors Program curriculum.

Transfer Students

Students who transfer to Grand Valley with the MACRAO approved associate of arts or science degree from a Michigan public community college are considered to have met the general education requirements and skills requirements, with three exceptions: They are required to demonstrate proficiency in mathematics (MTH 110); they must fulfill the junior-level writing requirement (a satisfactory score on the junior-level assessment essay or a grade of C or better in WRT 305); and they must complete one SWS course in their major or division. They must

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also complete the capstone course in that major and the B.A./B.S. cognate where applicable.

7. B.A. or B.S. Cognate.

In addition to the basic skills and the general education requirements, the B.A. degree requires a third-semester proficiency in a foreign language of the student's choice. A placement test is available to students with pre-college competence in a foreign language who desire advanced placement or a waiver of the foreign language requirement.

In addition to the basic skills and the general education requirements, the B.S. degree requires a three-semester sequence of courses that emphasize either natural science or social science methodology as prescribed by the major department. See the department entries for specific details.

8. Capstone Course.

Each major curriculum includes a senior-level capstone course aimed at providing the student with a broad and comprehensive perspective on the fundamental assumptions, issues, and problems of the field. See the department entries for specific details.

9. Required Hours at Grand Valley.

Graduation from Grand Valley State University requires that the completion of the last 30 semester hours toward a baccalaureate degree must be earned at Grand Valley or in Grand Valley programs and courses taught off campus by Grand Valley faculty.

10. Senior Institution Requirement.

Regardless of the number of transfer credits accepted by Grand Valley from junior or community colleges, a baccalaureate degree must include a minimum of 58 semester hours from a senior (a four-year degree-granting) institution.

11. Transfer Hours for Major and Minor.

Regardless of the number of transfer hours accepted by Grand Valley from other institutions, transfer students must complete a minimum of 12 hours in the unit conferring the major (six for the minor).

Double Major; Double Minor; Major-Minor

In order to have two majors recorded on the official record, a student must meet fully the requirements of each major. Regardless of the amount of overlap, each major must contain at least 30 credits not duplicated in the other. For a double minor, each must contain 20 credits not duplicated in the other.

The same principle applies in counting credits toward a major and a minor; regardless of the overlap, the major must contain at least 30 credits not duplicated in the 20 credits of the minor.

Second Bachelor's Degree

Under certain circumstances a student may earn two baccalaureate degrees. Students with a Grand Valley baccalaureate degree or Grand Valley students pursuing two degrees simultaneously at Grand Valley should note the following information:

1. They must meet all specified requirements for both degree programs.
2. They must complete a minimum of 30 semester hours in residence at Grand Valley beyond that required for the first degree.

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3. A student who meets the separate requirements for each of the two degree programs but not the additional residence requirement may have both majors certified and recorded on his/her academic record.
4. A student holding a baccalaureate degree from Grand Valley may not modify his or her undergraduate GPA for degree by pursuing additional coursework.

Students holding a baccalaureate degree from another regionally accredited institution should note the following information:

1. They must meet all specified requirements for a new major degree program.
2. General Education requirements are regarded as satisfied by the first degree.
3. They must complete a minimum of 30 semester hours in residence at Grand Valley.
4. Transfer students must complete a minimum of 12 hours in the unit conferring the major (six for the minor).

Catalog Limitations and Guarantees

A student may graduate under the catalog in effect at the time of his or her initial registration as a degree-seeking student at Grand Valley or under any succeeding catalog in a year in which the student was enrolled. However, no student may graduate under the requirements of a catalog that is more than eight years old. A student may not pursue a course, program, or degree that has been discontinued by the university regardless of the student's entry date.

Graduate Academic Policies and Regulations

Academic Review

A cumulative grade point average of 3.0 or higher must be earned in the entire degree program in order to graduate. A graduate student whose cumulative grade point average falls below 3.0 after completion of nine hours of graduate level coursework will be placed on academic probation. Such students must achieve at least a 3.0 cumulative grade point average after the next nine hours of coursework to remain in the program. A cumulative grade point average of 2.0 or below after nine hours of graduate level coursework means automatic dismissal from the university. Students who have been academically dismissed may apply for readmission after one year. Students who wish to appeal their dismissal should direct a written appeal to the dean of the appropriate division. Appeals for dismissal made by nondegree students must be directed to the Dean of Graduate Studies.

Credit Load

Full-time graduate students register for nine or more credit hours per semester. Permission from the dean of the appropriate division is required for more than 15 hours per semester.

Independent Study

No independent study or individualized courses will be allowed in areas where courses exist and are taught at least once per year.

Only graduate degree-seeking students who have completed the core requirements or have special permission from the dean's office may take individualized graduate courses or do graduate-level independent projects.

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All independent study topics and the amount of credit to be earned must be approved by the faculty member who agrees to supervise the project. A maximum of six hours of credit can be granted for independent study. The conditions, meeting times, workload, and subject matter concerned with the project are mutually agreed to by the initiating student and the assenting faculty member, consistent with standards of quality education. Request forms can be obtained from the faculty or the program office. Some departments may have further restrictions regarding independent study.

Degree Requirements

In each of the graduate programs offered by Grand Valley, the university seeks to provide its students with intellectual challenge and opportunity for scholarly and professional growth. A graduate program is a carefully structured combination of studies and research designed on the whole to serve specific needs of the student.

Specific details of the programs and regulations governing graduate work may be found in the department entries in this catalog. The following briefly summarizes the institutional minimums for the master's degree: *In those degree programs where the department requires more than the university minimum, their requirements take precedence:*

1. A minimum of 33 semester hours of graduate level coursework.
2. A cumulative GPA of at least a 3.0 is required of all candidates for the master's degree.
3. The student must fulfill all requirements for the degree within a period of eight consecutive years. The date of entry into the first graduate course at GVSU is viewed as the starting point of the eight-year period. If a course taken to complete the requirements for the master's degree does not fall within the eight-year period allowed for the degree, the course may be retaken for credit, with departmental approval. Otherwise another course of equivalent semester hours must be substituted in the program.
4. Graduate credit from graduate institutions with appropriate regional accreditation may be considered for transfer to a degree program at Grand Valley State University. Only coursework completed in the five years prior to application will be considered for transfer. Transfer credits must apply directly to the student's program as determined by the director of the graduate program. Only courses with grades of B (3.0) or above will be considered for transfer. Correspondence courses will not transfer into graduate programs at Grand Valley State University.
5. All graduate students must complete a minimum of 24 hours in residency at Grand Valley State University.
6. Master's programs may include some courses that are dual numbered at the senior undergraduate and graduate level. Such courses must be approved for dual listing by the University Curriculum Committee and the Provost. Students registering for graduate credit will be required to perform at the graduate level. Graduate students may not repeat for graduate credit dual-listed courses that were taken in their undergraduate program. If such a course is a master's program requirement, the department will make an appropriate substitution.
7. Candidates for advanced degrees must demonstrate not only their mastery of the subject matter but also their ability to integrate and synthesize it. They must also demonstrate their ability to generate new knowledge and/or apply

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existing knowledge to specific practical situations. This demonstration may take the form of a thesis, comprehensive examination, or an appropriate project. A specific course may also be used to fulfill this requirement as long as it is structured as a capstone experience. In such a course there must be a written product that meets the objectives and is evaluated by the faculty in the program.

Second Master's Degree

Under certain circumstances a student may earn two master's degrees. Students who are considering such a plan should note the following information:

1. Meet all specified requirements for both degree programs.
2. Complete a minimum of 21 semester hours in residence at Grand Valley beyond the requirements for the first Grand Valley degree.
3. In keeping with the residency requirement, a student with a graduate degree from another institution with appropriate regional accreditation must earn a minimum of 24 semester hours in residence at Grand Valley. Note that the minimum total hours required for the second degree must be satisfied either through approved transfer hours or additional coursework at Grand Valley.
4. The time limit to satisfy degree requirements and the time limit on transfer of credits are applicable to the second master's degree.
5. Students who meet separate emphasis area requirements within a program but not the additional residence requirements for two degrees may have both emphasis areas certified and recorded on their academic record.

Catalog Limitations and Guarantees

Graduate students follow the requirements in the Grand Valley catalog at the time they were originally admitted into a program as degree-seeking students. Students who have not enrolled in Grand Valley for 24 consecutive months must follow the requirements in the Grand Valley catalog in effect at the time of their re-entry. All students have the option of using the program requirements in effect at the time of graduation. Any exceptions must be approved in writing by the faculty advisor and program director and filed in the appropriate program office.

Academic Resources and Special Programs

The Academic Resource Center (ARC) supports student learning by providing a wide range of services to students in one central location. The ARC coordinates orientation for all new students and houses the Freshman Studies, General Education, Honors, and Supplemental Writing Skills programs. ARC also coordinates academic advising and provides advisors for students who have not decided on their majors or who have been provisionally admitted. ARC support services include workshops that help students with study skills, test anxiety, and time management; information on graduate study; preparation for professional and graduate school tests; and administration of College Level Examination Program (CLEP) testing and placement testing.

The ARC has several programs that provide specialized support services to targeted student populations. These special programs include the following:

EXCEL Program

The EXCEL Program provides individualized academic support services that lead to a more successful college experience for the diverse Grand Valley State student community, with a specific focus on minorities. In addition to regular services provided by GVSU, the EXCEL Program provides its participants with assessment testing, study skill development, academic and career advising, specialized tutoring, survival skills seminars, individualized academic plans, peer mentoring, and counseling.

Office of Academic Support

The Office of Academic Support (OAS) provides services and accommodations that enhance the learning environment for students with disabilities. Grand Valley State University students who qualify and have a documented disability may take advantage of a variety of services that make possible the full participation of disabled students in GVSU educational programs.

TRIO Programs

The TRIO programs include Educational Connections, Educational Support Program, The McNair Scholars Program, TRIO Upward Bound Math and Science, and Upward Bound. The programs provide assistance for qualified under-represented students who need supplemental instruction or other support services at GVSU.

Educational Connections

Educational Connections is a project designed to provide information on educational programs and services for persons interested in continuing their education. The staff, located in downtown Grand Rapids, provides information on various educational programs that meet the participant's needs and interests including high school completion, college programs, or technical/vocational training. The staff helps clients explore career possibilities and provides guidance on how to achieve their educational and career goals. The staff also offers assistance in identifying sources and applying for financial aid, referrals to social service agencies, administration and evaluation of interest inventories and academic testing, bilingual services (Spanish) such as counseling, financial aid forms, program applications, etc., and arranging for school visitations.

Academic Resources and Special Programs

Educational Support Program

The Educational Support Program is designed to assist students in their pursuit of a degree through an individualized approach to the variety of concerns that all college students have. Such concerns include finding the time to study, better ways to take tests, or improvement in any of the areas known as study skills. Counselors are available for academic advising, career selection, and any personal issue that may concern a student.

McNair Scholars Program

This program is designed to help members of groups who are under-represented in graduate education gain admission into a program leading to a doctoral degree. During the academic year students are teamed with a mentor who will help them throughout their undergraduate experience. Students work on several areas including research, writing, computer applications, time management, GRE preparation, exploration of financial resources, application to graduate programs, and participation in local and national research symposia throughout the academic year. During the summer residential program students work with faculty and mentors on research activities as well as refining, writing, and proofing research documents for publication.

TRIO Upward Bound Math and Science

TRIO Upward Bound Math and Science provides support to first-generation, low-income high school students from a five-state region who have demonstrated an interest and have the aptitude to pursue a degree in math and science or a related field at the college level. Traditional support services as well as seminars and instruction in service learning, research, college selection, college entrance preparation, and financial aid are provided during the academic year. During the summer, participants attend a residential program on GVSU's campus.

Upward Bound

The Upward Bound program helps eligible high school students prepare for college-level studies. The program staff works closely with high school teachers and administrators as well as the parents of program participants. Grand Valley State University selects ninth-grade students who continue in the program until they graduate from high school. During the academic year, the program staff helps these students select college preparatory courses, provides students with academic, personal, and career counseling, and conducts tutorial sessions for students who are experiencing difficulties in their classwork or who want to sharpen their study skills. Students in the Upward Bound program contribute to their community by volunteering time to various service organizations and agencies. During the summer, students become familiar with college life by living in dormitories on campus, taking accelerated courses in math, English, and science, and participating in internships in various departments on the GVSU campus.

Tutoring

ARC's Tutoring Center provides free tutoring to all Grand Valley State University students in most 100- and 200-level courses. Tutorials are done in one-on-one and group settings. The Math Lab provides group tutoring for students enrolled in Math 096, 097, 110, 122, 123, 125, and 201 and Statistics 215, as well as individual

Office of Graduate Studies and Grants Administration

tutoring where applicable in other math courses. Tutoring services are available at the Allendale, Pew, and Holland campuses.

Writing Center

The Writing Center offers free peer consulting services in writing for students enrolled in classes. The center provides weekly small group activities for Writing 098 students, assistance to Writing 150 students in computerized classrooms, occasional workshops as requested by faculty, and a walk-in center available for students with papers in all Grand Valley classes, particularly Supplemental Writing Skills courses. Students writing papers for any course can stop by for a walk-in session to get detailed feedback on their work at any stage in the writing process. Writing Center services are provided at the Allendale, Pew, and Holland campuses.

Office of Graduate Studies and Grants Administration

The Office of Graduate Studies and Grants Administration is located in the Richard M. DeVos Center on the Grand Rapids—Robert C. Pew Campus. The Pew campus is now home base for most of Grand Valley's graduate degree programs. Many graduate programs and courses are now offered in Grand Rapids so that they are more accessible to adult learners living or working throughout the Grand Rapids metropolitan area.

The Dean of Graduate Studies works on behalf of all graduate students to ensure that Grand Valley's graduate programs are of the highest quality, that faculty teaching graduate courses are well qualified to teach at the graduate level, and that university policies and procedures are applied appropriately to graduate students. The Graduate Dean and staff work closely with the Provost, the Office of Admissions, Academic Deans, Department Chairs, the Council of Graduate Program Directors, the Division of Continuing Education, the Registrar, the Office of Minority Affairs, and Student Financial Aid to advocate on behalf of graduate students and to provide leadership and vision for graduate education at GVSU.

Currently enrolled graduate students or persons interested in graduate studies at Grand Valley State University are welcome to visit the Graduate Dean on the third floor of the DeVos Center, for assistance, advice, or to provide feedback on any aspect of their graduate education; telephone: (616) 336-7105. For general questions about the admissions process for graduate students at Grand Valley, students should contact the Associate Director for Graduate Admissions at (616) 895-2025. For questions about a specific graduate degree program, contact the graduate program director for that program. Most graduate program directors are also located at the Pew Campus. Programs in communication, health professions (occupational therapy, physical therapy), and in computer information systems are located in Allendale. The graduate program director in Physician Assistant Studies is located in the downtown Grand Rapids area.

The Office of Graduate Studies and Grants Administration also provides oversight and services in the management of sponsored programs and grants. The role

The Barbara H. Padnos International Center

of this office is to assist GVSU faculty and staff in the pre-award process of developing proposals and finding potential funding sources as well as actually submitting grant proposals to funding sources. We also work with the project directors of such grants in managing and monitoring their grant awards. To foster the quality of the grants submitted and the quality of our management of these awards, this office offers workshops on grantsmanship and project management.

The Dorothy A. Johnson Center for Philanthropy and Nonprofit Leadership

The Dorothy A. Johnson Center for Philanthropy and Nonprofit Leadership was established in 1992 with support from the W. K. Kellogg Foundation to promote philanthropy, community improvement, and excellence in nonprofit leadership through teaching, research, and service.

The mission of the Johnson Center is to encourage an understanding of the historical roots and contemporary practices of philanthropy; promote and support service-learning and community engagement; and encourage best practices in management, leadership, and governance of nonprofit organizations.

The Johnson Center provides grants to GVSU faculty for course development and research related to philanthropy, civic engagement, and the nonprofit sector. Faculty may also apply for grants to facilitate service-learning in their courses. The Presidential Service-Learning Scholars Program gives selected faculty an opportunity to study service-learning pedagogy and apply it to their courses.

Continuing education opportunities are available to nonprofit professionals through the Johnson Center's workshops, seminars, research, and consultation services.

Students have opportunities to participate in Johnson Center activities as paid assistants, interns, or research associates. The Johnson Center for Philanthropy is located on the second floor of the Richard M. DeVos Center.

The Barbara H. Padnos International Center

In 1996, Grand Valley State University changed its Mission Statement to include a commitment to preparing "its graduates to be citizens of an increasingly global society." No longer is West Michigan an entity unto itself. The impact of globalization has reached the area's economic base, educational systems, social service agencies, communications networks, scientific and engineering firms, health care organizations, and the tourism industry.

New populations, environmental challenges, and global interdependence add to the agenda for international competency skills. Individuals, businesses, agencies, and organizations need employees who are culturally and linguistically capable.

The Barbara H. Padnos International Center

Second-language fluency and the ability to work with various cultures is critical to the future of West Michigan.

The Barbara H. Padnos International Center organizes and coordinates the university's international programs and activities, working with all academic departments. Special effort is made in area studies, business, international relations, modern languages, nursing, psychology, public administration, sciences, and social work to encourage students to gain global expertise. Collaboration with Housing and the Modern Languages Department facilitates Language Houses, campus residence experiences with an emphasis on second language acquisition. Many international programs include graduate student opportunities.

The Barbara H. Padnos International Center oversees exchange agreements, study abroad programs, work and internship programs in other nations, and volunteer, service learning, and independent study projects that occur overseas. It serves as a catalyst for international curriculum development and helps make GVSU's international resources and expertise available to the community through presentations and consulting services.

The Barbara H. Padnos International Center coordinates activities with Student Affairs and Admissions to recruit, admit, and advise international students. The Center also works with universities, nongovernmental organizations, and governmental agencies to develop and administer programs and services. In addition, it works with faculty, the Robert and Mary Pew Faculty Teaching and Learning Center, and the Modern Languages Department to internationalize the curriculum, provide overseas study opportunities relevant to the curriculum, and facilitate Language Houses on campus. The Padnos International Center also collaborates with the Van Andel Global Trade Center to plan and sponsor community-related programming.

Enrollment in all study abroad programs and experiences (summer, short-term, semester, academic year, field trip, internship, work abroad, language study, practicum, etc.) must be done through the Barbara H. Padnos International Center.

International Exchange Agreements

Partnerships with foreign institutions create opportunities for student and faculty educational and living experiences in other nations. Exchanges also increase the presence of international students and faculty at GVSU. Currently, GVSU has agreements with the following institutions, which offer summer, semester, and year-long study abroad opportunities for students. Selected programs are open to graduate students, subject to departmental authorization.

East China Normal University, Shanghai, China
Kingston University, Kingston-on-Thames, England
L'Ecole Supérieure Des Sciences Commerciales, Angers, Angers, France
Groupe ESC Grenoble, Grenoble, France
Carl von Ossietzky Universität, Oldenburg, Germany
International Christian University, Tokyo, Japan
The Japan Center for Michigan Universities, Hikone, Japan
Universidad De Las Americas-Puebla, Puebla, Mexico
Eastern Institute of Technology, Hawke's Bay, New Zealand
University of Waikato, Hamilton, New Zealand
University of Economics, Krakow, Poland
University of West Indies, Jamaica, Barbados, Trinidad/Tobago
Uppsala University, Stockholm, Sweden

Academic Semester and Year-long Programs Overseas

The Barbara H. Padnos International Center supports the academic programs in African/African American Studies, East Asian Studies, Latin American Studies, Middle Eastern Studies, Russian Studies, and International Relations, through the offering of study abroad opportunities.

Academic semester and year-long programs in nations relevant to the Area Studies programs and international relations are available for academic credit to students at GVSU.

GVSU is a member of COUNCIL:CIEE, a worldwide consortium sponsoring overseas study opportunities, student identity cards, travel reservations, work abroad, and volunteer opportunities. As a member of COUNCIL:CIEE, GVSU students may participate in COUNCIL's overseas study centers in Argentina, Australia, Belgium, Brazil, Chile, China, Costa Rica, the Czech Republic, Denmark, Dominican Republic, England, France, Germany, Ghana, Hungary, Indonesia, Ireland, Japan, Malta, Mexico, Netherlands, Northern Ireland, Poland, Russia, Scotland, South Africa, Spain, Sweden, Taiwan, Thailand, Tunisia, Turkey, Vietnam, and Wales.

The Barbara H. Padnos International Center maintains a fully staffed overseas programs resource room in the Student Services Building, Room 105, where students can explore participation in overseas experiences throughout the world. The Center staff offers advising, enrollment support, financial aid coordination, and credit evaluation. Students are encouraged to visit the Resource Room early in their academic studies so that appropriate planning can be undertaken.

Summer and Short-term Programs Overseas

Students can acquire international experience through a variety of short-term GVSU-sponsored programs, generally led by GVSU faculty. Several programs are open to graduate students subject to departmental authorization. Summer and short-term programs may include:

- Sydney, Australia—public affairs and planning
- Rainforest, Brazil—biodiversity conservation in the Atlantic forest
- Toronto, Canada—public administration
- Shanghai, China—Eastern philosophy, culture, and business
- San Jose, Costa Rica—intensive Spanish and Costa Rican culture
- Cairo, Egypt—Egyptian history and culture
- San Salvador, El Salvador—social work
- Bristol, England—public administration; social work
- Kingston, England—accounting and British culture; urban studies and British culture; nursing
- Grenoble, France—business
- Nice, France—French language
- TÅbingen, Germany—German language and culture
- Dublin and Galway, Ireland—social work
- Guadalajara, Mexico—Spanish language and culture
- Puebla, Mexico—service learning/education
- Miraflor, Nicaragua—nursing
- Krakow, Poland—Polish culture and economics
- University of Natal, South Africa—social work
- Burgos to Santiago, Spain—Spanish literature, art, and music
- Taipei, Taiwan—Chinese language and culture
- Caracas, Venezuela—communications and theatre

Van Andel Global Trade Center

The Padnos International Center assists students with their plans and participation in these programs. It coordinates the programs with Financial Aid and the Registrar's Office to ensure academic credit and financial aid for program participation. It also maintains a comprehensive file of authorized international study programs throughout the world, assists with the coordination of faculty exchanges, and provides information on opportunities for research, teaching, and working abroad.

Barbara H. Padnos International Scholar Program

The Barbara H. Padnos International Scholar program supports semester and academic year overseas study programs for GVSU undergraduates. Grants between \$5,000 and \$10,000 are given depending on the length of overseas study and the cost of the program. Students are expected to engage in serious overseas study for an extended period of time in an approved study abroad program. Academic credit toward graduation at Grand Valley State University will be given. Applications are available in the Barbara H. Padnos International Center. Deadline for applications is February 16.

For further information on international opportunities, contact the staff at The Barbara H. Padnos International Center, Room 105-A, Student Services Building, telephone (616) 895-3898.

Van Andel Global Trade Center

Mission, Objectives, and Plan of Operation

The mission of the Van Andel Global Trade Center (VAGTC), located in the Richard M. DeVos Center on the Robert C. Pew Grand Rapids Campus, is to provide the West Michigan community with international training, education, and assistance that enables companies to succeed globally. Founded in 1999, the Center accomplishes its mission by creating, developing, and offering programs and services that meet the needs of its constituency.

Named after Jay Van Andel, co-founder of Amway and a pioneer of international business, the Van Andel Global Trade Center was established as a core facility dedicated to advancing international trade and supporting West Michigan businesses as they prepare to enter and prosper in the era of international business competition.

As a full-service international assistance organization, the Center is dedicated to exceeding the expectations of its clients and raising the bar of international success. The Center's goal is to help "Shorten the Distance Between You and the World."

The objective of the Van Andel Global Trade Center is to be recognized worldwide as the most effective source of international information, training, and assistance services for the business and academic communities in West Michigan. The Center enters into strategic partnerships with members of the University and the business community to accomplish this objective.

Center services include seminars, workshops, certificate programs, and conferences encompassing many different international business topics. In addition,

Van Andel Global Trade Center

the Center provides vital customized import/export counseling for companies new to international business. The Center has a clearinghouse for international trade resources, including an electronic resource room and an extensive Web site. For students, the Center is a training ground for working in the international arena. The Center uses students to accomplish many of its objectives, and also provides a conduit for international careers through internships with its client companies.

The Van Andel Legacy

As the founder of the Right Place Program and a pioneer of international trade for Amway, Jay Van Andel is an inspiration for those in West Michigan seeking to prosper in expanding overseas markets. It is in this spirit that the Trade Center, named after Jay Van Andel, is working to become a core facility dedicated to advancing international trade and supporting West Michigan businesses as they prepare to enter and prosper in an era of international business competition.

Jay Van Andel co-founded Amway with partner Richard M. DeVos in 1959. By the year 2000, more than 3 million independent business owners were selling Amway products in more than 80 countries and territories.

Mr. Van Andel's business leadership has been extensive, ranging from Founding Chairperson of the Right Place Program in Grand Rapids, Michigan, to Chairman of the Board for both the U.S. and Michigan Chambers of Commerce, U.S. Chairman of the Netherlands-American Bicentennial Commission, and U.S. Commissioner General of the International Specialized Exposition in Genoa, Italy.

While leading Amway to record growth through international expansion, Jay Van Andel became convinced that the global marketplace would be pivotal in enhancing the prosperity of the region where he began his business. Recognizing that the Richard M. DeVos Center would be a focal point for international business education and activity, Mr. Van Andel became a major benefactor of the building. Named in his honor and dedicated to international business assistance for local companies, the Van Andel Global Trade Center is the university's commitment to fulfilling the global vision of one of West Michigan's most outstanding entrepreneurs.

Global Advisory Board

The Center's Global Advisory Board is composed of the Executive Director of the Van Andel Global Trade Center and leaders from the business and economic development communities. The Board serves to sustain a collaborative environment between the Center and the West Michigan community. The Board meets to advise the Center on the programs and services offered to the West Michigan community as well as to provide guidance on future initiatives.

Kent-Ottawa-Muskegon Foreign Trade Zone

The Van Andel Global Trade Center is home to the Kent-Ottawa-Muskegon Foreign Trade Zone (KOM-FTZ, #189). It serves as the grantee administrator and maintains the day-to-day operations of the zone; related activities include marketing, strategic planning, administration, and zone support. The KOM-FTZ maintains a board of twelve individuals, three each from Kent, Ottawa, and Muskegon counties and three from GVSU. A Foreign Trade Zone is a secure and enclosed area, considered to be outside of the United States for purposes of Customs duty payments.

Academic Programs

African/African American Studies Minor (AAA)

Coordinator: Tucker.

The African/African American studies program at Grand Valley State University provides a foundation for understanding the history and culture of African Americans and their representations in social scientific and artistic discourses, in addition to the critical tools needed to examine the social construction of African American lives and community. Although the course of studies is intended to cast light on all aspects of African American community, the dispersion of African culture beyond the continent of Africa situates the program in studies and discourses in Africa, the United States, Central and South America, and the Caribbean—wherever people of African descent are found. The perspective presented is that of the North American, the U.S. student, looking within the United States and then outward to Africa and other locations of the diaspora to understand what African American experience means.

The minor in African/African American studies requires 21 units (approximately seven courses); AAA core courses are intended to provide students with

1. A critical perspective on research and representations of African Americans within a variety of disciplines.
2. The social science methodology requisite to engaging in research on African American social institutions.
3. Knowledge of African American cultural expression in the humanities and arts.
4. Knowledge of the history, ideas, and sociocultural issues defining African American experience.
5. Opportunities to apply knowledge and research skills to the analysis and understanding of local African American communities.
6. The skills and knowledge necessary to participate in and contribute to African American intellectual life and community.

The African/African American studies program is recommended for students seeking teaching certification or majoring in anthropology, criminal justice, education, English, history, humanities, liberal studies, sociology, and social work. The program offerings are also supportive of and complementary to Latin American studies, women's studies, and multicultural studies.

Students minoring in African/African American studies are required to complete 21 hours of coursework.

Students who minor in African/African American studies must complete three core courses: AAA 202 African Diaspora, AAA 301 Perspectives on African/African American Studies, and AAA 340 African American Culture and Social Thought.

Students should be alert to the presence of courses offered through the vehicle of the Special Topics (AAA 380) and Issues in Africana Studies (AAA 390) as well as African American studies related courses offered in English, geography, history, Latin American studies, social science, sociology, and women's studies. Such offerings may be used to complete the 21 hours of coursework. Consult with the program coordinator regarding special topics or courses from other departments that may qualify as course electives for the minor.

African/African American Studies encourages students to participate in study abroad programs. Opportunities are available in Brazil, Ghana, South Africa, and

African/African American Studies

Tunisia through COUNCIL's study abroad program sites. Additional opportunities are available through direct enrollment in African universities. Information is available through the program coordinator and the Padnos International Center.

Courses of Instruction

AAA 202 African Diaspora. Overview of the history and culture of African societies throughout the world and the persistence of African culture among black populations outside of Africa. Chronicle of major events in the diasporic experience. Examines ethnocultural debate, African cultural values, artistic and intellectual traditions, and cultural continua of African forms in the New World. Three credits. Offered every winter semester.

AAA 231 Early African American Literature. Analysis and discussion of discourse primarily written by African Americans during the formative years of this nation. Emphasis on literary discourse as a means of defining African American consciousness and community, understanding representations of African American's community of origin, and investigating how the communities African Americans inhabit shaped their discursive expression. Three credits. Offered every fall semester.

AAA 232 Modern African American Literature. Analysis and discussion of discourse by and about African Americans written primarily during the twentieth century. Emphasis on literary discourse as a means of defining African American consciousness and community and understanding how the communities African Americans inhabit shaped their discursive expression. Three credits. Offered every winter semester.

AAA 301 Perspectives on African/African American Studies. Traces the historical development and examines the scope, theories, discourses, and methodologies defining African American studies and critical responses to these studies. Surveys perspectives on African American history, religion, social organization, politics, economy, literature, and culture and ideology. Three credits. Offered every fall semester.

AAA 305 Perspectives on the Black Arts Movement. An analysis of the development and reception of shifts in Black American identity, ideals, and aspirations as articulated by Black arts, artists, and activists reacting to the integrationists ideals of the Civil Rights Movement. Part of Civil Rights Theme. Three credits. Offered winter semester.

AAA 315 Field to Factory: African American Migration. Examines the sociocultural, political, economic, psychological, and interpersonal consequences of the migration of over one million African Americans from the rural South to the industrialized North during the decades surrounding World Wars I and II. Part of Cities Theme. Three credits. Offered fall semester.

AAA 340 African American Culture and Social Thought. Examines the cultural ties between Africans and African Americans, the historical and sociocultural context of African American cultural expression, and the defining dialogues, moments, and personages in African American culture and social thought. Three credits. Offered every fall semester.

AAA 350 African American Identity and Communication. Examines the ways African Americans define themselves and membership in their group and ways they perceive within-group and out-of-group communication. Investigates African American conceptualizations of self, identity, and ethnicity and ways these conceptualizations reflect and are a reflection of African American communication styles. Contrasts African American and Anglo American cultural patterns and communication styles. Three credits. Offered every winter semester.

AAA 351 Perspectives on African American Males. A critical examination of the socialization, life ways, status, and future of African American males. Historical perspectives, present status, cultural expression and social relationships, empowerment, masculinity, psychosocial development and coping, and the future of African American males. Three credits. Offered fall semester.

AAA 352 Black Women's Culture and Communities. A historical and theoretical analysis of the distinct identities African American women constructed for themselves (and had constructed for them) in response to the forces of patriarchal domination and political colonization. Gender and Identity theme. Fulfills U.S. Diversity requirement. Three credits. Offered fall semester.

AAA 380 Special Topics Seminar. A seminar for the study of important topics not ordinarily covered in other courses. Course may be taken more than once when the topic is different. One to three credits. Offered in response to special program interests of faculty and students.

African/African American Studies

AAA 390 Issues in African Studies. An indepth analysis of a specific issue in African/African American studies from an interdisciplinary approach, for example, African American identity, the impulse toward separatism in African American social institutions, the Africanization of American identity and cultural expression, and contemporary elaborations of the “black code.” Prerequisites: Three credits in any African/African American Studies course offering or US 101 or SOC 382. Offered in fall and winter semesters.

AAA 399 Independent Readings. Independent supervised readings in selected topics. A student may take only one reading course for one to three credits per term. No more than six credit hours of 399 and 499 combined may count toward the minor. One to three credits. Offered in fall and winter semesters.

AAA 490 Practicum: Career-Service in Community Building. Agency experience in the community relating practical training and independent study in a specialized area in African American studies. Maximum of six credits. Nine hours of course preparation and permission of instructor and program coordinator. One to six credits. Offered in fall and winter semesters.

AAA 499 Independent Study and Research. Research conducted individually with faculty supervision. Attention given to written and oral presentation of research findings. A student may take only one independent study course for one to four credits per term. No more than six credit hours of 399 and 499 combined may count toward the minor. Prerequisite: Nine hours in the department and written permission of the instructor before registration. One to four credits. Offered fall and winter semesters.

Courses from Participating Departments

ENG 203 World Literature. Readings of major drama, poetry, and novels from medieval times to the present, translated from major European and world languages. Authors such as Dante, Voltaire, Mann, Tolstoy, Kafka, Narayan, and Borges offer varied literary glimpses of foreign worlds. Fulfills Philosophy and Literature Foundation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 205 Literatures in English. Introduction to British, American, and other literatures written in English organized around a theme, period, or nationality. The course emphasizes close reading, writing skills, and introduces students to a variety of genres and cultural contexts for reading and understanding literature. Fulfills Philosophy and Literature Foundation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

GPY 351 Geography of Africa. Introduces students to a geographical and historical understanding of Africa. Focus will be on continent-level as well as regional and local-level phenomena. The political, economic, social, and environmental contexts associated with African cultures will be investigated. Three credits. Offered winter semester of odd-numbered years.

HST 210 Empire, Culture, and Conflict. An introduction to the history of non-Western cultures and the development of their relationships with Western Europe and the United States. Regional emphasis varies. Course may not be repeated for additional credit. Supplemental writing skills course. Fulfills World Perspectives requirement. Three credits. Offered fall and winter semesters.

HST 314 African American History. Examines the history of African Americans from forced migration through the Civil Rights movement. Issues studied include race relations, black culture in slavery, emancipation, the origins of segregation, the “great migration,” and the Civil Rights movement. Offered fall semester of odd-numbered years.

HST 335 Africa: Past and Present. Survey of African history, emphasizing the sub-Saharan region and its development from the Iron Age to the present. Offered winter semester of even years.

SS 313 The Africans. An intensive study of the three traditions (Native, Christian, and Islamic) that have shaped Africa’s past and that will have an impact on its future. A fundamental assumption of this course is that contemporary Africa can only be understood and appreciated in the total context of the triple heritage. Three credits. Offered winter semester.

Aging and Adult Life Minor

Coordinator: Rynbrandt.

Knowledge of aging can improve your interactions with older people; it can prepare you to make sound plans for your own later life. It can help you understand what public policy development is needed for the elderly and prepare you for employment in the field of aging. The courses in the sequence described below are designed to be taken by undergraduates as well as interested persons from the community at large.

This minor is designed to appeal to students whose major academic preparation is in sociology, psychology, social work, business, education, nursing, public administration, biology, economics, political science, health sciences, or recreation.

Requirements for a Minor in Aging and Adult Life

Students who wish to minor in aging and adult life are required to complete 21 hours in the minor. Students must complete HS 375 (Biology of Aging), PSY 332 (Adult Development and Aging), SOC 388 (Middle Age and Aging), and LIB 314 (Life Journey). Students must also complete three additional courses to be selected from courses such as REC 307 (Recreation for the Aging), SS 323 (The Family), SS 381 (Death and Dying), or SOC 356 (Sociology of Health Care).

Courses of Instruction

HS 375 Biology of Aging. An introductory course in the anatomical and physiological aspects of the normal aging process, designed for students from a broad range of disciplines. The course is articulated with SOC 388, Middle Age and Aging, and must be taken simultaneously with or subsequent to SOC 388. Emphasis will be placed upon the normal aging process as it occurs in the majority of the population. Prerequisites: A previous course in anatomy and physiology (HS 202 or HS 208 and 280), concurrent enrollment in SOC 388, or permission of the instructor. Offered on demand.

LIB 314 Life Journey. A study of life development from childhood through old age as perceived and expressed in works of literature, philosophy, art, and music. Focuses on insights drawn from the humanities concerning the nature of the phases of adult life. One aim of the course is to lead students to a fuller understanding of the potentials contained in their present period of life as well as a deeper understanding of what is likely to be most important to other people at a given point in their lives. Another aim of the course is to give the student increased understanding of how the humanities communicate human insight. Part of Human Journey theme. Three credits. Offered fall and winter semesters.

PSY 332 Adult Development and Aging. A review of postadolescent development from young adulthood through old age. Changes in family and work roles, personality, cognition, perception, and health will be discussed. Field observation required. Prerequisite: 101. Three credits. Offered once a year.

REC 316 Therapeutic Recreation for the Elderly. Involves the study of characteristics and needs of the aging and principles of program planning for them. Three credits.

SOC 356 Sociology of Health Care. An analysis of the social facets of health and disease, the social functions of health organizations, the relationship of health care delivery to other social systems, the social behavior of health care providers and consumers, and international patterns of health services. Race, class, and gender issues are examined. Part of Health, Illness, and Healing Theme. Three credits. Offered fall and winter semesters.

SOC 388 Middle Age and Aging. An examination of some of the myths about aging: older people are less likely to change, are less productive, etc. Major attention will be given to psychological stages of the life cycle, socio/psychological theories of aging, literary and historical portrayals of aging, and cross-culture differences. Three credits. Offered winter semester of odd-numbered years.

Anthropology

SS 323 The Family. An examination of the basic concepts of culture and their application, first to the American family and then to the family in other cultures. Fulfills the U.S. Diversity requirement. Three credits. Offered every semester.

SS 381 Death and Dying. An examination of mortality, its social and psychological consequences, and the problems it poses for Americans. Combining history and recent research findings, the course covers such topics as grief, euthanasia, suicide, the dying patient, and widowhood. Part of Death and Dying Theme. Three credits. Offered fall semester.

Anthropology (ANT)

Chair: Hull. Professor: Brashler; Associate Professors: Hull, Rhoads; Assistant Professors: Hardy, Murphy.

Anthropology is the study and understanding of humans in all places and throughout time, including the effects of culture on individuals and of individuals on their society. Anthropology offers a perspective for critically analyzing culture and prepares students for multicultural career settings in the United States and abroad. Both an anthropology major and minor are available.

Requirements for a Major or Minor in Anthropology

The wide scope and holistic nature of anthropology mean that students should have opportunities to experience three kinds of coursework: (1) courses concerned with the discipline; (2) courses specializing in a subdiscipline of anthropology; and (3) courses in disciplines related to anthropology.

Students majoring in anthropology may earn either a B.A. or a B.S. degree. The B.A. degree requires third-semester proficiency in a foreign language; the B.S. degree requires the completion of BIO 355, ANT 310, and STA 215.

Majors must complete at least 36 hours in the major: 30 in anthropology and three hours in sociology and SS 300 (Research Methods in the Social Sciences). The 30 hours in anthropology must include ANT 204; 206; 220; 310 or 346; 405; and 495.

In addition, students are required to take either ANT 307 (Field Techniques and Laboratory Methods in Anthropology) or ANT 490 (Practicum). This requirement recognizes the importance of a field experience to the discipline. Field experiences can be in archaeology or cultural anthropology, or students can arrange a practicum in a specific field setting of their interest. Students are strongly encouraged to consult with their advisors at an early point to begin discussing their choice of field experience. Majors are strongly encouraged to complete courses in related cognate areas, to complete an internship, and to participate in career planning events.

A major in anthropology can acquire additional experience in applied anthropology, economic anthropology, psychological anthropology, urban anthropology, ethnohistory, or a regional emphasis (e.g., Latin America, Middle East, Africa, Great Lakes archaeology). This can be arranged through the advising process, independent study courses (399 and 499), and/or a practicum (490). No more than six hours of 399 and 499 combined may count toward the major.

A student who minors in anthropology is required to complete 21 hours in the department, including ANT 204 and 206 and either SS 211 or ANT 220. At least six of the remaining hours must be at the 300 or 400 level.

Honors Organization

Lamda Alpha is the National Scholastic anthropology fraternity. Grand Valley State University's Michigan Beta Chapter of Lamda Alpha is dedicated to promoting and recognizing scholarly achievement by students working toward degrees or minors in anthropology; or students with a strong interest and background in anthropology. Meetings are informal gatherings aimed at organizing speakers, events, fundraising for service projects, and travel to professional meetings several times a year. Membership is open to any student with 12 or more credits in anthropology holding a 2.75 overall GPA and a 3.0 GPA in anthropology.

Fieldwork and Research Opportunities

The anthropology program regularly sponsors field schools in archaeology and cultural anthropology. These programs are locally based and are accessible to commuters as well as on-campus students. Occasional opportunities for out-of-country fieldwork also are available. Post-field independent research opportunities are available through the anthropology lab, which houses a collection of over 200,000 artifacts from more than 100 sites. Students interested in fieldwork should contact the department.

Anthropology Club

The Anthropology Club is open to all majors and interested students. It works with Lamda Alpha Honor Society in sponsoring speakers and fundraising events and participates in local, regional, and national meetings of anthropology. The club is involved in local and international community service projects.

Scholarships

Richard E. Flanders (University Club Scholarship). This scholarship, in honor of the late Richard E. Flanders, who founded the anthropology program, is available to full-time junior and senior students majoring or minoring in anthropology or a related discipline with a strong background in anthropology. Award amounts vary depending on number of applicants.

Walter Boston Koch Scholarship. This scholarship honors Walt Koch, a long-time member of the anthropology faculty. It is available to part-time and full-time sophomores, juniors, or seniors who are majoring or minoring in anthropology. Award amounts vary depending on number of applicants.

Career Opportunities

Professional and career opportunities for students majoring in anthropology include jobs in international development/assistance (nonprofit and government), government, education, museums, international business, zoos, human services, and health care.

Particularly important is the way students coordinate their major with other disciplines. For example, a student with a double major in business and anthropology and with a foreign language proficiency is ideally suited to work for companies with overseas operations. Students interested in working with people should consider a double major in anthropology and social work, one of the health sciences, or other related fields. Students interested in museum work should consider history as a second major or minor.

It is important for students to identify their interests as early as possible so that they can work with an advisor to develop the best academic program possible.

Anthropology

For many career paths in anthropology, it is important to engage in one or more practicum experiences or actual fieldwork. These opportunities are available with appropriate planning and coordination with your advisor.

Career practicum experiences are available for students interested in museum work and a number of other activities in local communities. Students interested in practicum experiences need to begin planning with their advisor for the experience as early as possible in their college career.

Sample Curriculum

First Year

ANT 204 Introduction to Cultural Anthropology
ANT 206 Human Origins
ANT 220 Introduction to Archaeology
ENG 150 Strategies in Writing
HST 205 Western Civilization to 1500 A.D.
MTH 110 Algebra
MUS 100 Introduction to Music Literature
PHI 101 Introduction to Philosophy
HS 100 Human Health and Disease
SOC 201 Introduction to Sociology
Electives

Second Year

ANT 207 Language and Culture
ANT 215 Origins of Civilization
GEO 100 Environmental Geology
CS 150 Introduction to Computing
SOC 280 Social Problems
SOC 382 Minority and Ethnic Relations
SS 211 Peoples of the World
SS 315 Comparative Religions
Electives

Third Year

ANT 310 Perspectives in Bioanthropology
ANT 325 Archaeology of North America
ANT 346 Kinship and Social Organization
ANT 360 Ethnology of Mesoamerica
ANT 380 Special Topics
GPY 307 Introduction to Computer Mapping/Geographic Information Systems
SS 300 Research in the Social Sciences
BIO 355 Human Heredity
STA 215 Introductory Applied Statistics
Electives

Fourth Year

ANT 307 Field Techniques and Laboratory Methods
ANT 405 Anthropological Theory
ANT 490 Practicum: Career Service
ANT 495 Practicing Anthropology (capstone)
SS 311 Native Peoples of North America
Electives

Courses of Instruction

ANT 204 Introduction to Cultural Anthropology. Introduces the discipline of anthropology by examining the diversity of human cultures that have been described by anthropologists over the last 100 years. The principles of anthropology are explained with examples drawn from non-Western culture. Comparisons are drawn with our own. Fulfills Social Science Foundation; fulfills World Perspectives requirement. Three credits. Offered fall and winter semesters.

ANT 206 Human Origins. Examines the dynamic interplay between human biology and culture through the study of human evolution. Grounded in the mechanisms of evolution, the class examines the emergence of our species and our relationship to non-human primates, among other topics. Fulfills Life Sciences Foundation. Three credits. Offered fall and winter semesters.

ANT 207 Language and Culture. Explores the interaction between language, communication, and culture, employing cross-cultural analysis to reveal cultural models and to understand how linguistic variation is linked to gender, age, region, ethnicity, and class. Several practical activities are used to apply analyses to anthropological problems. Three credits. Offered winter semester of odd-numbered years.

Anthropology

ANT 215 Origins of Civilization. We live with the consequences of decisions and choices made by our ancestors around the world. This course examines the successes and failures of our ancestors so that we may better understand our own behavior. The foundations of world civilization are explored by looking at archaeology of preliterate societies. Fulfills World Perspectives requirement. Three credits. Offered winter semester.

ANT 220 Introduction to Archaeology. Introduction to the methods and techniques of archaeology, including the methods of excavation, analysis, dating techniques, and data presentation. Course has fieldwork opportunities and draws on examples from local and worldwide research. Fulfills Social Sciences Foundation. Four credits. Offered fall semester.

ANT 307 Field Techniques and Laboratory Methods in Anthropology. Training in the application of research methods under field conditions to problems in major areas of anthropology; supervised instruction in anthropological laboratory techniques, including data collection and storage, analysis, and interpretation. Prerequisite: Permission of instructor. One to nine credits. Offered spring and/or summer session.

ANT 310 Perspectives in Bioanthropology. The breadth of bioanthropology is investigated using a biocultural perspective. The lectures, discussions, and labs of the course explore evolutionary trends and changes in human variability, disease, growth and development, human skeletal biology, forensics, human paleontology, and primatology. Prerequisite: 206 and BIO 355. Four credits. Offered winter semester of even-numbered years.

ANT 316 Death, Burial, and Culture. This course examines how different cultures approach issues and customs surrounding death. Drawing on evidence from biological and cultural anthropology and archaeology, students learn from the dead by exploring the experience of death and how it illuminates life in different cultures around the world and through time. Prerequisites: ANT 204, ANT 206, or ANT 220, or permission of instructor. Part of Death and Dying Theme. Three credits. Offered fall semester.

ANT 320 Culture and Disease. Introduces students to the anthropological study of disease ecology and medical systems cross-culturally. Explores the impact of disease, ecology, and sociocultural behavior throughout human evolution. Investigates the efficacy and nature of non-Western curing procedures and the cultural and psychodynamic features of illness. Part of Health, Illness, and Healing Theme. Three credits. Offered fall semester.

ANT 325 Archaeology of North America. A survey of prehistoric developments from Alaska to Central America, including the Mesoamerican civilizations. Three credits. Offered winter semester of odd-numbered years.

ANT 330 Ethnology of Selected World Areas. Offered on demand, with each offering devoted to the study of a particular area. Students may repeat the course provided each repeat is for a different area. Three credits. Offered on demand.

ANT 340 Culture and Environment. Compares different adaptive strategies of cultures from around the world and seeks understanding of ethical and social values different groups have related to the environment. Attention is focused on how humans relied on cultural mechanisms in the past to adapt and change their physical and natural environment. Part of Earth and Environment theme. Three credits. Offered winter semester.

ANT 346 Kinship and Social Organization. A survey and practical application of basic kinship concepts and terminology. The major theories of social organizations are critically evaluated. Cross-cultural perspective is emphasized. Prerequisite: 204. Three credits. Offered winter semester of even-numbered years.

ANT 347 Environments and Cultures of the Great Lakes Region. Pleistocene history, landforms, soils, vegetation and wildlife, and cultural development in the Great Lakes region over the past 20,000 years. Prerequisite: Junior or senior status in anthropology, biology, geology, resource management, or sociology. Three credits. Offered on demand.

ANT 350 Archaeology of Mid-East. The Middle East is recognized as the birthplace of several major cultural traditions. This course examines the evidence of archaeology that informs us on the origins and settlement of the Middle East from at least one million years ago to the seventh century A.D. from the perspective of cultural ecology. Three credits. Prerequisites: ANT 215, ANT 220, MES 201, or prior approval of the instructor. Offered winter semester of even-numbered years.

ANT 355 Migration in Americas. A comparative, cross-cultural study of human migration in the Americas, drawing on the discipline of anthropology for methodology and content. Explores patterns of migration and issues of adaptation, assimilation, borders, transnationalism,

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immigrants, refugees, displacees, identity, and ethnicity. Part of Revolution and Evolution in Americas theme. Three credits. Prerequisite: 204. Offered fall semester, even-numbered years.

ANT 360 Ethnology of Mesoamerica. Examines the cultural history and social dynamics that have shaped modern Mesoamerica. Includes discussion of environment, archaeology, diversity of modern Mexican and Guatemalan cultures and current issues of development and human rights. Fulfills World Perspectives requirement. Part of Revolution and Evolution in the Americas theme. Three credits. Offered fall of even-numbered years.

ANT 370 Cross-cultural Perspectives on Gender. Examines gender as a fundamental organizing theme of culture. Also emphasizes the sociocultural basis for gender differences using a cross-cultural and comparative approach. Discusses how gender relations affect all other aspects of human life. Fulfills World Perspectives requirement. Part of Gender, Society, and Culture theme. Prerequisite: 204 or 206. Three credits. Offered winter semester of even-numbered years.

ANT 380 Special Topics in Anthropology. A series of courses providing an in-depth study of a problem in anthropology and the methods of investigating it. Various topics of cross-cultural interest, such as human evolution, peasant cultures, preliterate societies, kinship pattern, and culture and personality will be examined. Offered on demand. Three credits.

ANT 399 Independent Readings. Independent supervised readings in selected topics. A student may take only one reading course for one to three credits per semester. No more than six hours of 399 and 499 combined may count toward a major or three hours of 399 and 499 combined toward the minor. Prerequisites: 204 or 206 and the written consent of the instructor before registration. Offered fall and winter semesters. Offered on a credit/no credit basis.

ANT 405 Anthropological Theory. Considers the major historical developments and theoretical trends in anthropology over the past 150 years. The approach is both topical and historical. Crossties with developments in related disciplines are noted. Three credits. Prerequisite: Senior standing as an anthropology major. Offered fall semester.

ANT 490 Practicum: Career-Service. Agency experience in the community relating practical training and independent study in a specialized area. Limited to 10 credits maximum. Prerequisites: 15 hours of course preparation and permission of instructor. One to nine credits. Offered fall and winter semesters. Offered on a credit/no credit basis.

ANT 495 Practicing Anthropology (capstone). Gives students the opportunity to integrate the diverse dimensions of anthropology and other disciplines. By focusing on a single culture area and research question, students will review the major theses, assumptions, and topics of anthropology. Prerequisites: senior standing and ANT 405. Three credits. Offered winter semester.

ANT 499 Independent Study and Research. Research conducted individually with faculty supervision. Attention is given to written and oral presentation of research findings. A student may take only one independent study course for one to four credits per semester. No more than six hours of 399 and 499 combined may count toward a major or three hours of 399 and 499 combined toward the minor. Prerequisites: Nine hours in the department and written permission of instructor before registration. Offered fall and winter semesters. Offered on a credit/no credit basis.

Social Science Courses

The following are interdisciplinary social science courses that may be used for an anthropology major or minor. Consult with your advisor for further information.

SS 211 Peoples of the World. A course in general diversity that examines world cultures through an ethnographic survey using an anthropological perspective. Emphasis on small-scale, non-Western societies and village societies within nation states. Fulfills World Perspectives requirement. Three credits. Offered fall and winter semesters.

SS 270 Gender and Family in Third World Development. An examination of how gender and family affect and are affected by Third World development, including a consideration of relevant theory, of practice and problems, and of efforts to improve development projects, e.g., in the areas of agriculture, the global economy, and U.S. foreign aid. Fulfills World Perspectives requirement. Three credits. Offered on demand.

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SS 300 Research Methods in the Social Sciences. Examination of basic investigative methods in the social sciences. Focus on logic and theory of social research, including formulating and testing hypotheses, research design, sampling procedures, data collection techniques, and the ethics of conducting research. Prerequisite: STA 215. Three credits. Offered fall and winter semesters.

SS 311 Native Peoples of North America. Examines diversity of indigenous cultures of North America from their origin and earliest historic and anthropological description. Using a comprehensive perspective, explores characteristics of various native cultures (lifeways, beliefs, customs) and evaluates the current status of native peoples in the United States. Fulfills U.S. Diversity requirement. Three credits. Offered in fall semester.

SS 313 The Africans. An intensive study of three traditions (Native, Christian, and Islamic) that have shaped Africa's past and that will have impact on its future. It is fundamental assumption of this course that contemporary Africa can only be understood and appreciated in the total context of the triple heritage. Three credits. Offered on demand.

SS 315 Comparative Religions. A cross-cultural study of contemporary religions. Examines the diversity of religious meanings through the lived experiences of cultures, traditions, and sects around the world. Exposes students to anthropological interpretations of religion through a range of methods, including ethnography. Themes include symbolisms, ritual, death, shamanism, healing, magic, pilgrimage and interfaith movements. Fulfills World Perspectives requirement; part of Religion theme. Three credits. Offered fall and winter semesters.

Art and Design (ART)

Chair: McGee. Professors: Menning, Seley, Wong-Ligda; Associate Professors: Eggers, Henke, Keister, McGee, Thomas, Van Gent, Weis, Assistant Professors: Bowers, Charland, Fisher, Strom, Theriault, Wittenbraker, Zettle-Sterling.

The Department of Art and Design offers courses in studio art and art history with degree programs leading to a B.A. and B.S. degree in studio art and a B.F.A. degree in studio art with an emphasis in ceramics, graphic design, illustration, jewelry and metalsmithing, painting, printmaking, or sculpture. In conjunction with the School of Education, the department also offers a B.A. or B.S. degree in art education with full state certification on the elementary and secondary levels.

Under the guidance of an art advisor, students may choose either a generalized art program (B.A. or B.S.) or a focused track (B.F.A.) preparing them for entry into a specific profession such as graphic design or illustration. They may also prepare for a career as an independent artist or for entry into graduate school. Minor programs are available in general studio art and secondary art teacher certification. Because of recent increases in enrollment, non-art majors can only be admitted to art studio classes at final registration.

Course work is augmented by field trips, a campus exhibition program, and visiting artists. Internships and independent study also enhance classwork, especially in graphic design where off-campus field experience is required.

The department is accredited by the National Association of Schools of Art and Design.

Admission

Admission to Grand Valley State University does not guarantee access or admission to the programs and courses offered by the Department of Art and Design. Dramatic increases in enrollment in recent years have dictated that enrollments be controlled in order to serve students adequately and effectively. Most importantly, graphic design and illustration are secondary admit programs based on a review

Art and Design

of work in the six courses in the foundation program and academic performance outside of the department.

Transfer Students

1. All transfer credit and admittance for studio art courses will be by departmental portfolio review only. Contact the department for specific details. Transfer students should bring the results of this review as well as the transfer credit statement from admissions with them at the time they register so they can be advised about advanced placement.
2. Transfer students are required to take a minimum of 15 art credits within the department, including one art history course.
3. Transfer students may take longer to graduate in the B.F.A. or art education programs because of the high number of professional courses required in those programs and the sequencing necessary for skill development.

Degree Requirements

B.F.A. Degree

The B.F.A. degree is designed for students interested in a professional degree in art or design. It will prepare students for a career as a professional artist or designer. Entry requirements:

1. After completing the Foundation program (ART 150, 151, 152, 153, 155, and 157), students are evaluated for entrance into the design and fine arts programs.
2. A 2.0 GPA must be maintained; 2.75 GPA for graphic design emphasis.
3. Foundation and Junior Reviews.
 - a. Upon completion of the Foundation program (ART 150, 151, 152, 153, 155, and 157), all art students are required to submit their collective work for faculty review and comment.
 - b. Two semesters before their B.F.A. exhibition, all B.F.A. students are required to submit a sample of their work since Foundations for faculty review and comment.
 - c. Based on the review, students will be asked to do remedial work and submit to a second review. If a second review is unsuccessful, the student will be asked to leave his or her current program or the department.
 - d. See the B.F.A. Handbook for scheduling details and specific requirements.
4. Graduating seniors must have a B.F.A. show and a final acceptance of their work by the art and design faculty. The fine arts seniors will have a group exhibition in the Art Gallery. The graphic design seniors will conduct a board-room presentation to the art and design faculty culminating in a one- or two-day exhibition of their work. See the B.F.A. Handbook for details.

Students seeking a B.F.A. degree must complete a minimum of 84 credits in art and design, including completion of the foundation and art history component as well as the specific emphasis requirements as listed below.

Foundations (must be taken during freshman year):

ART 150 2-D Design	3
ART 151 3-D Design	3
ART 152 Color and Design	3
ART 153 Creative Problem Solving	3
ART 155 Introduction to Drawing I	3
ART 157 Introduction to Drawing II	3
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Art History

ART 221 Survey of Art History I	3	}	taken in sophomore year
ART 222 Survey of Art History II	3		
ART 325 19th Century Art ¹			
or			
ART 425 18th and 19th Century American Art	3	}	taken in junior year
ART 326 20th Century Art			
or			
ART 426 20th Century American Art	3		
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Note: The art history component of the B.F.A. program must be completed by the end of the junior year and is a prerequisite for ART 495, Senior Project: Issues in Art.

Emphases

Ceramics

Ceramics 275, 376–7, 477–8	15	
Drawing 257, 258, 355, 356	12	
Sculpture or Metals	6	
Painting, Printmaking, or Illustration	6	
Studio elective	3	
Senior Seminar 401	3	
Senior Capstone/Project 495	3	
Senior Project B.F.A. 498	6	
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Graphic Design

Graphic Design 210–1, 310–1, 410	15	
Photography CPH 171 or 175 ²	4/3	
Drawing 257	3	
Portfolio 413	3	
Senior Project: Graphic Design 415	3	
Practicum/Internship 417, 418, or 491	3	
Issues in Art (capstone) 495	3	
Five studio electives ³	15	
Business practice course ⁴	3	
Communication skills course ⁵	3	
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Illustration

Illustration 280, 381–2, 482–3	15	
Drawing 257, 258	6	
Graphic Design 210	3	
Painting 260	3	
Figure Painting 261	3	
Printmaking 265, 366	6	
Portfolio 413	3	
Senior Project 415	3	
Issues in Art (Capstone) 495	3	
Three studio electives	9	
	54	

Jewelry/Metalsmithing

Jewelry/Metals 245, 346–7, 447–8	15	
Drawing 257, 258, 355, 356	12	
Sculpture or Ceramics	6	
Painting, Printmaking, or Illustration	6	
Studio elective	3	
Senior Seminar 401	3	
Senior Capstone/Project 495	3	
Senior Project B.F.A. 498	6	
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¹The graphic design emphasis substitutes ART 218 for one of the two 300–400-level art history courses.

²CPH 171 or 175 and comprehensive program selected in consultation with advisor. Access to studio courses in the School of Communication cannot be guaranteed for art majors.

³Studio electives may be selected in art, photography, or film and video. Electives in other areas must be approved by an advisor.

⁴Business practice courses include BUS 201 Law and Business, MKT 350 Marketing Management, CAP 210 Fundamentals of Advertising, and CAP 220 Fundamentals of Public Relations.

⁵Communication skills courses include ENG 350 Business and Preprofessional Writing, CAP 315 Advertising Copywriting, CAP 321 Public Relations Writing I, and CFV 361 Scriptwriting I. Some of these courses may require prerequisites or permission of the instructor.

Art and Design

Painting

Painting 260, 361–2, 462–3	15
Drawing 257, 258, 355, 356	12
Printmaking or Illustration	6
Metals, Sculpture, or Ceramics	6
Studio elective	3
Senior Seminar 401	3
Senior Capstone/Project 495	3
Senior Project B.F.A. 498	6
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Printmaking

Printmaking 265, 366–7, 467–8	15
Drawing 257, 258, 355, 356	12
Painting 260, 361	6
Metals, Sculpture, or Ceramics	3
Two studio electives	6
Senior Seminar 401	3
Senior Capstone/Project 495	3
Senior Project B.F.A. 498	6
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Sculpture

Sculpture 270, 371–2, 472–3	15
Drawing 257, 258, 355, 356	12
Ceramics or Metals	6
Painting, Printmaking, or Illustration	6
Studio elective	3
Senior Seminar 401	3
Senior Capstone/Project 495	3
Senior Project B.F.A. 498	6
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B.A. and B.S. Degrees

Art majors seeking a B.A. or B.S. degree must complete a minimum of 45 credits in art and design.

Students seeking a major in studio art can earn either the B.A. or B.S. degree.

Requirements include completion of the following:

- ART 150, Foundations: 2-D Design (3 credits)
- ART 151, Foundations: 3-D Design (3 credits)
- ART 152, Foundations: Color and Design (3 credits)
- ART 155, Foundations: Introduction to Drawing I (3 credits)
- ART 157, Foundations: Introduction to Drawing II (3 credits)

ART 325, Nineteenth Century Art (3 credits)

or

ART 425, Eighteenth and Nineteenth Century American Art (3 credits)

ART 326, Twentieth Century Art (3 credits)

or

ART 426, Twentieth Century American Art (3 credits)

ART 495, Senior Project: Issues in Art (3 credits)

One additional course in Art History at the 200 level or above (3 credits)

Two courses in different 2-D areas (Prints, Painting, Graphic Design, or Illustration) (6 credits)

Two courses in different 3-D areas (Ceramics, Metals, or Sculpture) (6 credits)

Two intermediate level studio courses in one area (6 credits)

B.A. degree cognates: Foreign language (third-semester proficiency in a foreign language).

B.S. degree cognates: Science (three courses)

1. CS 150 Introduction to Computing or PHI 203 Logic.
2. STA 215 Introductory Applied Statistics.
3. STA 216 Intermediate Applied Statistics or SS 300 Investigative Methods in the Social Sciences.

Art and Design

Upon completion of the foundation program, all art students are required to submit their collective work for faculty review and comment. Based on the review, students may be asked to do remedial work and submit to a second review. If a second review is unsuccessful, the student will be asked to leave his or her degree program.

Students in the B.A./B.S. program in studio art (not art education) may experience difficulty in enrolling in the specific art courses they wish to take (particularly in graphic design).

Studio Minor

Students seeking a minor in studio art are required to take 101, 150, 151, 155, one art history course at the 200 level or above, and two additional studio courses at the 200 level or above for a total of 21 credits. (Art education minor, see information on Teacher Certification, below.)

Art Education (Teacher Certification)

Students majoring in art education or degree-holding students wishing teacher certification must complete 43 credits in art. ART 332 and 333 must be taken before arranging for teaching assisting (junior year) and directed teaching (senior year). To become eligible for entrance into the School of Education and the teacher assisting programs, students must have a 3.0 minimum GPA in the elementary/secondary art education major and a 3.0 minimum GPA in the secondary art education minor. Students should consult the Education section for teaching assisting and directed teaching requirements.

ART 230 and 331 may be counted for the (fine arts requirement) elementary teaching minor. Special education students are required to substitute ART 331, Art in Special Education, for ART 230.

Required courses for both the elementary and secondary levels are ART 150, 151, 155, 157, 221, 222, 260, 270, 275, 332, 333, 495, and six credit hours (two courses) in post-medieval art history above the 200 level, including one course in modern.

Art education students Foundation requirement of ART 150, 151, 155, and 157 should be completed in their freshman year. They must submit work from these courses to the Foundation Review at the same time as all other art students. Art education students may be asked to do remedial work and submit to a second Foundation review. If a second review is unsuccessful, the student will be asked to leave his or her program.

ART 230 and 331 will be offered during the fall, winter, and summer semesters. In both ART 230 and 331 students may satisfy elementary minor requirements.

Students obtaining certification in art at either the elementary or secondary levels are permitted to teacher assist at both the elementary and secondary levels.

Art Education Minor

The minor program in art for secondary teacher certification requires a minimum of 28 semester hours. Required courses are ART 150, 151, 221, 222, 332, and 333. Three additional studio courses must be selected from the following: ART 155, 260, 270, and 275.

Career Opportunities

The following are among career opportunities open to students who major in art.

Art and Design

Advertising art director, art editor, ceramist*, crafts supervisor, creative director, display artist, elementary school teacher, gallery operator, graphic designer, high school teacher, illustrator, jeweler, master printer*, metalsmith*, museum curator*, museum display designer*, museum educator*, painter*, potter, printmaker*, sculptor*, set designer, stylist in industry (sculptors), and supervisor museum school*.

Sample Curriculum for B.S. or B.A. Program

A general fine arts curriculum (check specific major requirements with your advisor) working toward a B.S. or B.A. degree.

First Year

ART 150 2-D Design
ART 151 3-D Design
ART 152 Color and Design
ART 155 Introduction to Drawing I
ART 157 Introduction to Drawing II
Five general education courses

Second Year

Six courses from art history and studio requirements
Four general education courses or electives

Third Year

Two courses from art history; six studio courses
Four general education courses or electives

Fourth Year

ART 495 Senior Project: Issues in Art
Art electives
General electives

Recommended Curricula for B.F.A. Program

Freshman Year

Fall Semester

ART 150 2-D Design	3
ART 151 3-D Design or ART 153 Creative Problem Solving	3
ART 155 Introduction to Drawing I	3
Two basic skill requirements (WRT 150/MTH 110)	8
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Winter Semester

ART 151 3-D Design or ART 153 Creative Problem Solving	3
ART 152 Color and Design	3
ART 157 Introduction to Drawing II	3
Two general education courses	6
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	15

Sophomore Year—B.F.A. Fine Arts

Fall Semester

ART 221 Survey of Art History I	3
ART 257 Life Drawing	3
ART Emphasis: Fine art studio of choice: ceramics, metals, painting, printmaking, sculpture	3
Two general education courses	6
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	15

Winter Semester

ART 222 Survey of Art History II	3
ART 258 Intermediate Drawing	3
ART Emphasis: Fine art studio of choice, second semester	3
Two general education courses	6
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	15

*May require graduate training after the B.F.A. at the M.A. or M.F.A. level.

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Sophomore Year—B.F.A. Graphic Design

Fall Semester		Winter Semester	
ART 210 Graphic Design I	3	ART 211 Graphic Design II	3
ART 221 Survey of Art History I	3	ART 222 Survey of Art History II	3
ART 257 Life Drawing	3	One studio elective	3
CPH 171 or 175 Photography	4/3	Two general education courses	6
One general education course	3		<u>15</u>
	<u>15</u>		

Junior Year—B.F.A. Fine Arts

Fall Semester		Winter Semester	
ART 325 (425) Nineteenth Century Art	3	ART 326 (426) Twentieth Century Art	3
ART 355 Advanced Drawing	3	ART 356 Advanced Drawing	3
ART Emphasis: Fine art studio of choice	3	ART Emphasis: Fine art studio	3
ART Fine art studio: Follow emphasis program	3	One art studio course selected from emphasis listing	3
One general education course	3	One general education course	3
	<u>15</u>		<u>15</u>

Junior Year—B.F.A. Graphic Design

Fall Semester		Winter Semester	
ART 310 Graphic Design III	3	ART 218 Design History	3
Art history elective	3	ART 311 Graphic Design IV	3
One studio elective	3	One studio elective	3
Business practice course	3	Communication skills course	3
One general education course	3	One general education course	3
	<u>15</u>		<u>15</u>

Senior Year—B.F.A. Fine Arts

Fall Semester		Winter Semester	
ART 401 Senior Seminar	3	ART 498 Senior Project (B.F.A. Exhibit)	6
ART 495 Senior Project: Issues in Art	3	ART Fine art studio (choice)	3
ART Emphasis: Fine art studio	3	One general education course	3
One studio elective	3	One general elective	3
One general education course	3		<u>15</u>
	<u>15</u>		<u>122</u>

Senior Year—B.F.A. Graphic Design

Fall Semester		Winter Semester	
ART 410 Graphic Design V	3	ART 413 Portfolio	3
ART 491 Internship/ART 417–418 Practicum	3	ART 415 Senior Project: Graphic Design	3
ART 495 Issues in Art (Capstone)	3	One studio elective	3
One general education course	3	Two general education courses	6
One studio elective	3		<u>15</u>
	<u>15</u>	Total	<u>122</u>

Art and Design

Recommended Curriculum for Art Education

Freshman Year (all students)

ART 150 2-D Design	3
ART 151 3-D Design	3
ART 155 Introduction to Drawing I	3
ART 157 Introduction to Drawing II	3
ED 200 Introduction to Education	3
One B.S. or B.A. cognate course	3
Five general education courses	15
One course for the elementary distributive minor or the secondary teachable minor	3
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Sophomore Year

ART 260 Introduction to Painting	3
ART 270 Introduction to Sculpture	3
ART 221 Survey of Art History I	3
ART 222 Survey of Art History II	3
PSY 301 Child Development	3
Two B.S. or B.A. cognate courses	6
Three general education courses	9
Three courses for the elementary distributed minor or the secondary teachable minor	9
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Junior Year

ART 275 Introduction to Ceramics	3
ART 332 Art in the Elementary Classroom	4
ART 333 Art in the Secondary Classroom	3
ED 205 Computers in Education	3
ED 225 Diversity in Education	3
PSY 325 Educational Psychology	3
Two general education courses	6
One art history course 300 level or above	3
Three courses for the elementary distributive minor or the secondary teachable minor	9
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The education courses listed below require admission to The School of Education. See catalog, School of Education: Applications Procedures.

Senior Year—Elementary

ED 430 Student Teaching, Elementary	10
ART 495 Senior Project: Issues in Art	3
ED 320 Materials and Methods in Elementary Reading	3
ED 330 Methods/Strategies of Elementary Teaching (assisted teaching)	5
ED 310 Managing Classroom Environments	3
ED 350 Current Practices in Elementary Education	1
ED 480 Professional Development	2
One art history course 300 level or above	3
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	30
Total	142*

*This total may vary depending on your decision to seek a B.A. or B.S. degree and your choice of teachable minor.

Art and Design

Senior Year—Secondary

ED 431 Student Teaching, Secondary	12
ART 495 Senior Project: Issues in Art	3
ED 321 Reading in the Content Area	3
ED 331 Methods/Strategies of Secondary Teaching (assisted teaching)	6
ED 310 Managing Classroom Environments	3
One art course 300 level or above	3
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	30
Total	142*

*This total may vary depending on your decision to seek a B.A. or B.S. degree, and your choice of teachable minor.

Courses of Instruction

ART 101 Introduction to Art. Introduction to the visual arts. Examination of creative, social, historical, and aesthetic aspects of selected works of art. Fulfills Arts Foundation. Three credits. Offered fall and winter semesters.

ART 107 Reproduction Processes. Covers equipment, materials, techniques and procedures of a design studio: how to interact with clients, assemble a job, mark it up for reproduction, shepherd it through printing, and solicit production bids. Responsibilities of the art director are explored. Prerequisite for all design practicum courses. Three credits. Offered fall and winter semesters.

ART 150 Foundations: 2-D Design. Explores the theories and concepts of two-dimensional art forms. Basic visual design principles, their application, comparison of contemporary and historical examples are presented through lectures and slides and applied to studio problems. Three credits. Offered fall and winter semesters.

ART 151 Foundations: 3-D Design. Fundamentals of design with an emphasis upon projects that develop the language of art as applied to three-dimensional forms in space. Three credits. Offered fall and winter semesters.

ART 152 Foundations: Color and Design. Fundamentals of design using more complex themes and including an in-depth study of color theory. Prerequisites: 150, 151, 155. Three credits. Offered fall and winter semesters.

ART 153 Creative Problem Solving. Introduction to various verbal and visual techniques for creative problem solving, including the use of the computer as a creative tool. Three credits. Offered fall and winter semesters.

ART 155 Foundations: Introduction to Drawing I. A study of fundamental pictorial concepts of drawing. Experimentation with varied technical means and media directed toward both descriptive and expressive ends. Three credits. Offered fall and winter semesters.

ART 157 Foundations: Introduction to Drawing II. A continuation of techniques and media from Introduction to Drawing I. Prerequisite: 155. Three credits. Offered fall and winter semesters.

ART 210 Graphic Design I. Extension of basic art and design fundamentals into a graphic design context, including computer-generated imagery. Stress is placed on problem solving through typographic imaging and the union of text and image. Prerequisite: Admission to the Graphic Design or Illustration emphasis; permission of instructor. Three credits. Offered fall semester.

ART 211 Graphic Design II. Graphic design is explored in its broadest applications, including symbology and logo design. Students learn to create visual messages that are aesthetically appealing as well as informative. Prerequisite: 210. Three credits. Offered winter semester.

ART 218 Design History. The history of design from the Industrial Revolution to the present. Discussions of the politics and ethics of design. Three credits. Offered winter semester.

ART 221 Survey of Art History I. A survey of art history from prehistoric times to the Renaissance. Three credits. Offered fall semester.

ART 222 Survey of Art History II. A survey of art history from the Renaissance to the present day. Three credits. Offered winter semester.

Art and Design

ART 230 Art for the Classroom Teacher. Materials, methods of motivation, and techniques for teaching art to elementary children, with emphasis on the contemporary philosophy of art education. Not for art majors or minors. Four credits. Offered fall and winter semesters.

ART 245 Introduction to Jewelry and Metalsmithing. A study of a variety of fabrication techniques in metalsmithing with emphasis on uses of metal and mixed media in creative design. Prerequisites: 152, 157; waived for non-majors. Three credits. Offered fall and winter semesters.

ART 257 Life Drawing. A continuation of techniques and media from Introduction to Drawing, with emphasis on the human figure. Prerequisite: 157. Three credits. Offered fall and winter semesters.

ART 258 Intermediate Drawing. An exploration of pictorial concepts in drawing in a variety of media with the emphasis upon individual expression. Prerequisite: 257. Three credits. Offered winter semester.

ART 260 Introduction to Painting. Fundamentals of painting in opaque media with a variety of subjects and styles. Prerequisites: 152, 157. Three credits. Offered fall and winter semesters.

ART 261 Figure Painting. Introduction to painting the figure, with an emphasis on perceptual accuracy. Prerequisite: 260. Three credits. Offered fall and winter semesters.

ART 265 Introduction to Printmaking. Experimentation with varied techniques and with different composition ideas related to some fundamental forms of printmaking. Work with wood/linoleum cut, intaglio, and collograph. Prerequisites: 152, 157. Three credits. Offered fall and winter semesters.

ART 270 Introduction to Sculpture. Direct modeling, carving, and construction as approaches to sculpture. Experimentation with plaster, clay, wood, and metal. Prerequisites: 152, 157; waived for non-majors. Three credits. Offered fall and winter semesters.

ART 275 Introduction to Ceramics. Basic techniques and concepts related to pottery and ceramics, with some historical background. Prerequisites: 152, 157; waived for non-art majors. Three credits. Offered fall and winter semesters.

ART 280 Introduction to Illustration. An overview of the illustration field covering historical and contemporary perspectives, aesthetic sensitivity, and professional practicality. Prerequisite: Completion of Foundations. Three credits. Offered fall and winter semesters.

ART 310 Graphic Design III. An advanced studio course covering principles that guide the development of creative solutions for educational and communication design. The student learns to manipulate typography, symbolism, illustration, and photography in a given space, which may take the form of advertisements, newspapers, periodicals, books, annual reports, signs, or direct mail. Prerequisite: 211. Three credits. Offered fall semester.

ART 311 Graphic Design IV—Package Design. Introduction to the fundamental development of dimensional construction that refines and integrates many design principles. Imaginative use of materials and surface graphics as well as marketing and production problems are explored. Prerequisite: 310. Three credits. Offered winter semester.

ART 325 Nineteenth-Century Art. A survey of art in Europe during the nineteenth century. Prerequisite: 222. Three credits. Offered fall semester of even-numbered years.

ART 326 Twentieth-Century Art. A survey of art in Europe and America in the twentieth century. Prerequisite: 222. Three credits. Offered winter semester of odd years.

ART 331 Art in Special Education. Techniques for teaching art to exceptional children with emphasis on the special needs of all learners. For students going into special education and therapeutic recreation. Available for art students only in addition to major and minor requirements. Four credits. Offered fall and winter semesters.

ART 332 Art in the Elementary Classroom. Gives prospective art teachers an opportunity to investigate some of the contemporary issues of public education and examine pertinent ideas of art education on the elementary level. Required for certification of art teachers for K–12th grades. Should be taken before the assistant teaching experiences. Restricted to art majors and minors. Prerequisites: 150, 151, 155. Four credits. Offered fall semester.

ART 333 Art in the Secondary Classroom. A further exploration of art materials, techniques, and methods of motivation relevant to the secondary classroom, with emphasis on the

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contemporary philosophy of art education. Required for certification of art teachers for K–12. Restricted to art majors and minors. Prerequisites: 150, 151, 155. Three credits. Offered winter semester.

ART 346–347 Intermediate Jewelry and Metalsmithing I and II. An advanced study of metalsmithing techniques—casting, inlays, forging and raising—with emphasis on developing skills and solving design problems. Prerequisite: 245 or 346. Three credits. Offered fall and winter semesters.

ART 355–356 Advanced Drawing I and II. Advanced exploration of drawing techniques with emphasis upon personal expression. Prerequisite: 258 or 355. Three credits. Offered fall and winter semesters.

ART 361–362 Intermediate Painting I and II. Intermediate projects using a variety of styles, subjects, and techniques. Prerequisite: 260 or 361. Three credits. Offered fall and winter semesters.

ART 366–367 Intermediate Printmaking I and II. A continuation of ART 265. Color and scale and combining printmaking media are emphasized. Prerequisite: 265 or 366. Three credits. Offered fall and winter semesters.

ART 371–372 Intermediate Sculpture I and II. A continuation of ART 270 with an in-depth exploration of three-dimensional media and emphasis on individual problems. Prerequisite: 270 or 371. Three credits. Offered fall and winter semesters.

ART 376–377 Intermediate Ceramics I and II. A continuation of ART 275 with emphasis on forming, throwing, glazing, and decorating pottery. Prerequisite: 275 or 376. Three credits. Offered fall and winter semesters.

ART 380 Special Topics in Art. A course built around a special project or media with limited or topical significance and offered on a very limited basis. Students must seek special permission of the instructor for entry into any 380 course. Prerequisites vary. Variable credit. Offered on sufficient demand.

ART 381 Intermediate Illustration I. Fundamentals of illustration with an emphasis on digital imaging methods. Prerequisite: 280. Three credits. Offered fall and winter semesters.

ART 382 Intermediate Illustration II. Fundamentals of illustration with an emphasis on realistic representation. Prerequisite: 381. Three credits. Offered fall and winter semesters.

ART 399 Independent Readings in Art. A course giving students with special interests an opportunity to explore texts, periodical, and reference materials under the guidance of an art faculty member. Prerequisite: Permission of the instructor. Offered fall and winter semesters. One to four credits are available per semester.

ART 401 Senior Seminar. For studio artists and designers about to enter graduate school or professional design studios. Includes a required three-day field trip to Chicago, information concerning resume preparation, exhibitions, interviewing, portfolios, design agencies, galleries, museums, and analysis of the professional literature through written assignments. Students will learn how the professional art world works. Prerequisites: Art major and senior standing. Three credits. Offered fall semester.

ART 410 Graphic Design V. Advanced layout problems involving brochures, annual reports, and corporate identity packages, as well as introduction to mixed media presentations. Stress is on individually conceived and developed projects. Prerequisite: 311; passage of Junior Review. Three credits. Offered fall semester.

ART 413 Portfolio. Refinement and development of a body of work constituting a professional portfolio. Includes a required three-day field trip to Chicago. Prerequisite: Senior standing in major; passage of Junior review. Three credits. Offered fall semester.

ART 415 Senior Project: Graphics/Illustration. Development of a body of work focusing on a specific aspect of graphic design or illustration in which the student wishes to specialize. The work will be shown along with the student's portfolio as the senior show. Prerequisite: 410 or 483. Three credits. Offered fall and winter semesters.

ART 417 Practicum in Graphic Design. Students work on assignments under a practicing graphic designer in Grand Valley's production design studio. Students must have design experience and apply for a position in the course. Prerequisite: 310. Three credits. Offered fall and winter semesters. Offered on a credit/no credit basis.

Art and Design

ART 418 Practicum in Television Graphics. Students work on assignments under a practicing designer at WGUV-TV. Work includes graphic design, scenic design, and photography. Students must have design experience and apply for a position in the course. Prerequisite: 310. Three credits. Offered fall and winter semesters. Offered on a credit/no credit basis.

ART 425 Eighteenth- and Nineteenth-Century American Art. A survey of art in America from the Colonial period through the nineteenth century. Prerequisite: 325 or 326. Three credits. Offered fall semester of odd-numbered years.

ART 426 Twentieth-Century American Art. A survey of art in America during the twentieth century. Prerequisite: 325 or 326. Three credits. Offered winter semester of even-numbered years.

ART 447-448 Advanced Jewelry and Metalsmithing I and II. A continuation of 346-347. The specific aim is to increase personal exploration, competence, and aesthetic development so as to produce a student extremely competent in the field of metalsmithing. ART 448 may be repeated for credit. Prerequisites: 347 or 447. Three credits. Offered fall and winter semesters.

ART 462-463 Advanced Painting I and II. A continuation of ART 361 with advanced and more individual problems. 463 may be repeated for credit. Prerequisite: 362 or 462. Three credits. Offered fall and winter semesters.

ART 467-468 Advanced Printmaking I and II. A continuation of ART 367 with additional emphasis on quality printing, experimental printing and content issues. 468 may be repeated for credit. Prerequisite: 367 or 467. Three credits. Offered fall and winter semesters.

ART 472-473 Advanced Sculpture I and II. A continuation of ART 371 with strong emphasis on exploration of individual expression. 473 may be repeated for credit. Prerequisite: 372 or 472. Three credits. Offered fall and winter semesters.

ART 477-478 Advanced Ceramics I and II. A continuation of ART 376-377 with emphasis on individual solutions to problems in design, clay and glaze composition, forming, and firing techniques. 478 may be repeated for credit. Prerequisites: 377 or 477. Three credits. Offered fall and winter semesters.

ART 482 Advanced Illustration I. Development of a personal style of illustration supported by an examination of historical trends. Prerequisite: 382. Three credits. Offered fall and winter semesters.

ART 483 Advanced Illustration II. Development of personal styles of illustration supported by an examination of contemporary trends. Prerequisite: 482. Three credits. Offered fall and winter semesters.

ART 490 Internship in Art History. This course involves placement in a position off campus in which the student gains professional experience in an institution such as an art museum. Internship arrangements follow campus policy and students must receive faculty permission before enrolling in the course. Variable credit. Offered every semester.

ART 491 Internship in Studio Art. A special study opportunity which allows for advanced students to work for academic credit in a professional shop, gallery, or studio. Internships are prearranged by the department, are limited in number, and follow prescribed campus internship policy. Prerequisite: Variable; permission of department. Variable credit. Offered on sufficient demand. Offered on a credit/no credit basis.

ART 495 Senior Project: Issues in Art (Capstone). A seminar composed of lectures, discussions, papers, and assigned readings intended to give the student an understanding of his or her own place as a visual artist in the historical, social continuum of our time. Prerequisite: Senior standing in B.A., B.S., or B.F.A. program. Three credits. Offered fall and winter semesters.

ART 498 Senior Project. This course is the final work toward the B.F.A. Senior Exhibition and must be taken in the semester in which students hang their degree shows. Students will work closely with their major professor in their emphasis area, and may have an additional course assigned from their Junior Review. Students must seek the advice of their major professor for the selection of works for their exhibition. They may also seek advice of any other faculty members with whom they have worked or from whom they would like additional feedback. Prerequisite: 497. Six credits. Offered fall and winter semesters.

ART 499 Independent Study in Art. Advanced and independent work for students who have exhausted a regular course sequence and who wish to pursue a specialized project or

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medium under the guidance of the faculty. B.A. and B.S. students may not use 499 to fulfill their 45-credit major requirement. Prerequisite: Prior arrangement with a specific faculty. Variable credit. Offered fall and winter semesters.

Behavioral Science (BSC)

The Psychology and Sociology Departments cooperate to offer a major in behavioral science for students who want a broad background in the behavioral sciences. Students may concentrate in either Psychology or Sociology.

Students may earn either a B.A. or B.S. degree. The B.A. requires third-semester proficiency in a foreign language. The B.S. degree cognate sequence in the Psychology concentration is Statistics 215, Social Science 300, and Psychology 400. The B.S. degree cognate sequence in the Sociology concentration is Statistics 215, Social Science 300, and Sociology 360.

Students must complete a minimum of 36 hours, including SS 300. For the Psychology concentration, the 36 hours should also include PSY 360 and PSY 492 (Capstone). For the Sociology concentration, the 36 hours should also include SOC 360 and SOC 495 (Capstone).

Of the 36 hours required, students must take a minimum of 12 hours from the area that is *not* the concentration (from Psychology if the area of concentration is Sociology; from Sociology if the area of concentration is Psychology). In addition to the 36-hour major, three other courses are to be selected in consultation with the student's advisor from such courses as human heredity, statistics, and advanced courses in philosophy, political science, economics, or history.

For a list of courses see the separate listings under Psychology and Sociology.

Biology (BIO)

Chair: Rogers. Professors: Bajema, Northup, Rogers, J. Shontz, N. Shontz; Associate Professors: Dunn, HuiZenga, Lombardo, Luttenton, MacDonald, Thorpe; Assistant Professors: Blackman, Burton, Griffin, Hunt, Jacquot, Joseph, McCracken, Menon, Morgan, Nikitin, Staves, Stephenson, Trier.

Degrees offered: B.S., B.A. in biology; B.S. in group science, biology emphasis; B.S. in biopsychology; major for secondary or elementary teaching certification offered in biology and major for elementary teaching certification offered in group science, biology emphasis; minor for secondary teaching certification offered in biology.

The study of animals and plants has fascinated people for thousands of years. All of us have wondered at some time about how our bodies are put together and how they function, why plants flower, how organisms interact with each other and respond to the environment, or why some bacteria cause disease and others do not. Biology is an exciting and dynamic field filled with the satisfaction of answers to many questions and the challenge of others waiting to be explained.

As a science, biology offers the opportunity to study and experiment with animals, plants, fungi, and bacteria in the laboratory and outdoors. Biologists make contributions in widely varying areas, including medicine, crop development, biotechnology, wildlife management, environmental preservation, and systematics.

Biology

Career Opportunities

Advances in the field of medicine and the numerous biological problems associated with human beings and their environment provide promising opportunities for work in biology. Careers in biology that require a bachelor's degree include agronomist, aquatic biologist, biotechnologist, botanist, conservationist, fisheries biologist, genetics technician, horticulturist, marine biologist, microbiologist, quality control technician, park naturalist/ranger, teacher, wastewater plant technician, zoologist, and positions with seed, fertilizer, pesticide, chemical, medical supply, or drug companies, museums, zoos, governmental agencies, and private environmental consulting firms. Many careers in biology require additional training at the graduate or professional level, including college professor, dentist, ecologist, genetic counselor, genetic researcher, marine biologist, medical doctor, molecular biologist, physical therapist, and veterinarian.

Biology Major for the B.S. or B.A. Degree

The biology major is designed to help students gain a comprehensive understanding of the life sciences. The biology faculty believe it is vital for students at the undergraduate level to become familiar with the major principles and unifying concepts of biology. Thus, the curriculum introduces the fundamental areas of biology and still provides flexibility. Students who wish may select from several emphasis areas, including teacher certification, genetics and cell/molecular, premedical, pre-physical therapy, plant biology, animal biology, wildlife biology, aquatic and fisheries biology, preveterinary medicine, and environmental health. Any of these areas, in addition to the basic major, may be used as the foundation for graduate study. Biology majors, in consultation with their advisors, are able to tailor programs to fit career needs or interests. All majors must complete 38 credits in biology.

The biology major requires fulfillment of 1, 2, 3, and 4 below. Emphases are optional.

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. Biology Core (25 semester credits):
 - BIO 111 General Biology I
 - BIO 112 General Biology II*
 - BIO 215 General Ecology
 - BIO 375 and 376 Genetics*
 - BIO 405 and 406 Cell and Molecular Biology
 - BIO 495 Evolutionary Biology**
3. Biology Electives: to reach a total of 38 credits from among biology courses numbered 209 or above (except BIO 355) and HS 208 and 309, HS 212 and 213, and HS 280 and 281. One course must be taken from the Plant Biology category (BIO 303, 323, 333, 403, 413, 423; 573 with permission), and one course must be taken from the Animal Biology category (BIO 222, 232, 272, 302, 342, 352, 362, 372, 412, 422, 432; 572 with permission; HS 208 and 309,

*Satisfies B.S. degree cognates. B.A. students must take the listed courses and satisfy the foreign language requirement.

**Capstone course required for bachelor's degree.

Biology

HS 280 and 281). BIO 103, 105, 107, and 355 are excluded from the biology major.

4. Cognates (minimum of 23 credits):
 - a. CHM 115, 116 and either 231, and 232 or 241, and 242.
 - b. STA 215* or MTH 125* or MTH 201*
 - c. PHY 200 or 220 or 230; those students planning to attend graduate or professional school, or planning to seek secondary teaching certification are urged to take PHY 220 *and* 221 or 230 *and* 231.

Emphases (optional):

1. Teacher Certification Emphasis:

Students preparing to teach in either elementary or secondary schools must complete the biology major outlined above. Secondary admission to the School of Education requires at least a 2.8 GPA in the major.

Students with a baccalaureate degree and a major in biology from another institution can be certified to teach by earning at least five credits in the Biology Department and completing the professional education requirements of the School of Education. The required courses in biology must be approved by the department chair or designee.
2. Premedical, Preosteopathic, and Predental Emphasis:

Students planning careers as physicians and dentists may major in biology. There is no absolute list of required courses for persons seeking admission to medical or dental schools, though some of these schools have more specific course requirements than others. Careful consultation with your faculty advisor throughout the undergraduate program is strongly advised. Premedical students majoring in biology should complete the following: CHM 115, 116, 241, and 242, and PHY 220 and 221. In addition, electives should be considered from among BIO 302, 357, 422, and 432; HS 208 and 309, 212 and 213, 280 and 281; and CHM 351, 461, 462, and 463.
3. Preveterinary Medicine Emphasis:

Students preparing for careers as veterinarians may major in biology. Students should complete the following courses: CHM 115, 116, 241, 242, 461 and PHY 220, 221. Students must have competency in college algebra and trigonometry and must choose biology electives from 222, 232, 302, 303, 352, 422, 432 and HS 212, 213. This emphasis includes all the course requirements currently necessary for admission to the Michigan State University School of Veterinary Medicine. In addition, MSU requires applicants to accumulate a minimum of 240 hours of contact with the veterinary profession as well as substantial experience with animals, both small and large. Early consultation with the pre-vet advisor is strongly encouraged.
4. Pre-physical therapy emphasis:

Students planning to apply to the M.S. program in physical therapy may select biology as their undergraduate major. The following modifications to the pre-professional sample curriculum, which is printed in the Physical Therapy section of the catalog, are strongly recommended to ensure that all requirements are met in the most efficient manner. Students must take BIO 375 and 376 as well as BIO 111, 215, 405/406, 495, and a plant biology course (BIO 303, 323, 333, 403, 413, 423; 573 with permission) to complete the biology major.

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5. Plant Biology Emphasis requires:
BIO 303, 333, and 403 as biology electives.
6. Animal Biology Emphasis requires:
BIO 222, 232, 302, and 432 as biology electives.
7. Wildlife Biology Emphasis requires:
BIO 222, 333, 342, and 408 as biology electives and NRM 281 as a cognate.
8. The Aquatic Sciences Emphasis provides broad academic training to students with an interest in aquatic sciences. Students selecting the emphasis will complete coursework that covers the two major regional aquatic habitats (lakes and rivers) and the major groups of organisms (fish, plants, invertebrates). The emphasis is specifically designed to prepare students to be particularly competitive for graduate school admission or entry-level positions in the field of aquatic science. All students will complete BIO 440 and BIO 450. All students must also choose at least one course from each of the following three categories: BIO 362 or BIO 442, BIO 232 or BIO 372, BIO 323 or BIO 413. Students will consult with their academic advisor to develop a plan of study that fits their interests and career goals.
9. Environmental Health Emphasis requires electives from the following: BIO 232, 440; CHM 222; HS 202, 212 and 213; OSH 314, 404; NRM 281. Consult your academic advisor.
10. Genetics and Cell/Molecular Emphasis:
Students considering graduate study in one of the specialties relating to cellular and molecular biology or genetics, or pursuing work in the aforementioned fields and/or biotechnology may wish to select the Genetics and Cell/Molecular Biology Emphasis. The Genetics and Cell/Molecular Biology Emphasis requires CHM 241, 242, 461, 462, and either PHY 220 or 230 as cognates. PHY 221 (or 231) is highly recommended. Courses in the Biology electives category must include BIO 423 (Plant Biology elective), 426, six credits of 490 and/or 499, 422 or 432 (Animal Biology elective), and two courses chosen from 411, 414, and 416.

Preparation for Graduate School

Students planning to do graduate work in biology should consult early with their advisors. There is no absolute list of courses required for admission to graduate school. Generally, in addition to mathematics, students will need a full year of physics and two full years of chemistry, including CHM 241 and 242.

Group Science Major with a Biology Emphasis for the B.S. Degree

The group science major with a biology emphasis is designed for students seeking certification to teach at the elementary school level. It provides the student with broad exposure in all the sciences and permits concentration in biology. In order to be certified, students must complete this major with at least a 2.8 GPA and the elementary teaching minor. The following requirements must be completed for the major:

1. One course chosen from CHM 102, GEO 100, PHY 105, or PHY 106.
2. PHY 201 or 204.

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3. CHM 109* or 115* or 201*, and CHM 219.
4. GEO 111 or 201.
5. BIO 111 and 112.
6. Biology capstone and electives (a minimum of twelve semester credits, including the capstone, is required):
 - Capstone: BIO 494.
 - Electives: Courses must be taken from each of the following three categories; one must be a field course, designated with an (F).
 - Animal Biology category—HS 202, 208, BIO 222 (F), 232, 302, 325, 342 (F), 352, 422, 432, 572 (F) with permission.
 - Plant Biology category—BIO 303, 333 (F), 403, 573 (F) with permission.
 - Ecology, Genetics, Microbiology category—HS 212 and 213, BIO 215 (F), 355, 357, 375 and 376, 575 (F) with permission.

Biopsychology Major

Students interested in this interdisciplinary major should consult the Psychology Department for specific requirements.

Minor Requirements

The biology minor consists of a minimum of 24 credits in biology exclusive of BIO 103, 105, and 107. CHM 109 or CHM 115 is a required cognate in addition to the 24 credits. Requirements of the minor are:

BIO 111 General Biology I
BIO 112 General Biology II
BIO 325 Human Sexuality

One course chosen from each of the following three categories:

Genetics category—BIO 355 or 375 and 376.
Animal Biology category—BIO 222, 232, 342, 352; (572 with permission only); HS 202 or 208 and 309.
Plant Biology category—BIO 303, 323, 333, 403; (573 with permission only).
HS 212 and 213, 280 and 281 count in the minor toward the required 24 credits in biology.
Cognate: CHM 109 Introductory Chemistry or CHM 115 Principles of Chemistry I.

Health science majors selecting a biology minor for teacher certification are not permitted to double count the following courses: HS 208 and 309, HS 212 and 213, and HS 280 and 281.

Master of Education Degree

The M.Ed. degree with a concentration in biology is offered by the School of Education in cooperation with the Department of Biology. The primary purpose of the degree is to provide middle school and high school teachers with opportunities to update and expand their knowledge in the rapidly changing field of biology.

*Satisfies B.S. degree cognates, along with MTH 221 and 222. B.A. students must take the listed courses and satisfy the foreign language requirement.

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Admission

Admission to the M.Ed. program requires teaching certification with either a major or a minor in biology or group (general) science. Students must submit three letters of recommendation, transcripts of all previous coursework, and copies of teaching certificates. Students must have at least a 3.0 GPA. For additional details, see the School of Education section of the catalog.

Curriculum Overview

The program requires completion of 33 graduate credits, 18 credits in education and 15 in biology or health sciences. The specific degree requirements can be found in the Graduate Program section of the School of Education catalog description.

Upon admission to the program, the student and an advisor from the Biology Department or the Department of Biomedical and Health Sciences will evaluate all previous coursework taken in biology. A curricular plan reflecting the student's needs, interests, and goals will be agreed upon. Each student must complete a minimum of 15 credits from the following list of approved courses:

BIO 400-level courses with permission of advisor
BIO 525 Teaching Reproductive Health
BIO 557 Microbiology for Teachers
BIO 560 Productivity of Ecosystems
BIO 565 Modern Genetics
BIO 572 Field Zoology
BIO 573 Plants of the Great Lakes Area
BIO 575 Ecology of the Great Lakes
BIO 675 Methods for Aquatic Ecosystems
BIO 680 Special Topics in Biology
BIO 699 Graduate Research in Biology
HS 508 Advanced Human Physiology
HS 510 Immunology
HS 512 Medical Bacteriology
HS 680 Special Topics in the Health Sciences

Courses of Instruction

Numbers in parentheses at the end of the course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

BIO 103 The Biology of People. The behavior, anatomy, physiology, and evolution of humans are studied, with the goal of explaining how their internal systems and external environments interact and are controlled. Does not count toward a biology major or minor. Fulfills Life Sciences Foundation. Part of Human Journey theme. (3-0-2). Four credits. Offered fall, winter, and summer semesters.

BIO 105 Environmental Science. Study of natural ecosystems, their interrelationships, and human impacts and evolution of humans and environmental determinants of their cultures. Land use, resource and energy utilization, population trends and causative factors, air and water pollution, and economic factors influencing decision-making are emphasized. Does not count toward a biology major or minor. Fulfills Life Sciences Foundation. Part of Earth and Environment theme. (3-0-0). Three credits. Offered fall, winter, and summer semesters.

BIO 107 Great Lakes and Other Water Resources. A study of our region's water resources, including the Great Lakes, streams, and groundwater, and relationships of people with these systems. Does not count toward a biology major or minor. Designated lecture and laboratory sections are tailored for prospective elementary teachers. Fulfills Life Sciences Foundation. (3-0-3). Four credits. Offered fall and summer semesters.

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BIO 111 General Biology I. Introduction to the diversity of living creatures, anatomy and physiology of organisms, animal behavior, patterns of reproduction, ecology, and major pathways of Darwinian mechanisms of evolution. Fulfills Life Sciences Foundation. (3-0-2). Four credits. Offered fall and winter semesters.

BIO 112 General Biology II. Introduction to cell structure and physiology, growth and development, and genetics. Prerequisite: High school chemistry, CHM 109, or CHM 115 (CHM 109 or 115 may be taken concurrently). Fulfills Life Sciences Foundation. (3-0-2). Four credits. Offered fall, winter, and summer semesters.

BIO 180 Selected Topics. Readings, lecture, discussions, lab, or field experience (or any combination) on a specific biological topic. Prerequisites: variable. One to four credits.

BIO 215 General Ecology. Population, communities, and ecosystems, including primary productivity and energy flow, materials cycling, succession, population dynamics, and systems modeling. Prerequisites: 112 and sophomore standing (111 recommended). (3-0-3). Four credits. Offered fall and summer semesters.

BIO 222 Natural History of Vertebrates. Taxonomy, ecology, life histories, behavior, and distribution of vertebrates, with special emphasis on those of the region. Two Saturday field trips. Prerequisite: 111. (2-0-3). Three credits. Offered fall semester.

BIO 232 Natural History of Invertebrates. Anatomy, physiology, embryology, evolution, and natural history of the major groups of invertebrate animals. Those of the Great Lakes region will be emphasized. Prerequisite: 111. (2-0-3). Three credits. Offered winter semester.

BIO 272 Insect Biology and Diversity. Anatomy and physiology, life histories, ecology and evolution, and classification of insects. Students will also gain expertise in the collection, curation, and identification of local insects. Prerequisites: BIO 111 (215 recommended). (2-0-3). Three credits. Offered fall semester.

BIO 280 Selected Topics. Readings, lecture, discussions, lab, or field experience (or any combination) on a specific biological topic. Prerequisites: variable. One to four credits.

BIO 302 Comparative Vertebrate Anatomy. Phylogeny and anatomy of vertebrates. Prerequisite: 111. (2-0-4). Four credits. Offered winter semester.

BIO 303 Plants and Fungi. Evolution, reproduction, and structure of algae, fungi, bryophytes, lower vascular plants, and seed plants. Prerequisite: BIO 111. (3-0-3). Four credits. Offered winter semester.

BIO 307 Science Teacher Assistant Seminar. Strategies for teaching science in secondary schools. Coordinated by and taken concurrently with ED 307. Three credits. Offered fall and winter semesters.

BIO 309 Plants and Human Health. Examination of the plants and fungi that are sources of medicines and herbal remedies or that are used in the healing practices of various societies. Plants that are a regular part of people's diets and that have been found to have specific health benefits also will be discussed. Does not count toward a Biology major or minor. Part of Health, Illness, and Healing theme. Prerequisite: Junior standing and completion of the Life Sciences General Education category. (3-0-0). Three credits. Offered winter semester.

BIO 310 Biological Diversity of the Americas. Examines the relationships between long-term gradual change, short-term chaotic change, and the biodiversity of the Americas. The value of biodiversity will also be discussed. Does not count toward a Biology major or minor. Part of Revolution and Evolution in the Americas theme. Prerequisite: Junior standing and completion of the Life Science General Education Section.(3-0-0). Three credits. Offered winter semester.

BIO 311 Biological Basis of Society. Examines the relationships and conflicts between the biological basis of human behaviors and the ideas of socially defined freedoms and controls. Does not count toward a Biology major or minor. Part of Freedom and Social Control theme. Prerequisite: Junior standing and completion of the Life Science General Education Section. (3-0-0). Three credits. Offered winter semester.

BIO 323 Aquatic Plants. Aquatic vascular plants and algae of the Great Lakes region with emphasis on taxonomy, physiology, and ecological distribution. Prerequisite: 111. (2-0-3). Three credits. Offered fall semester.

BIO 325 Human Sexuality. Introduction to the biological dimensions of human sexuality from physiological, ecological, and evolutionary perspectives. Part of Gender and Identity theme. (3-0-0). Three credits. Offered winter semester.

Biology

BIO 328 Biomedical Ethics. Examination of the values, ideas, and technologies that humans have used, are using, and may use in the future with respect to biomedical issues. The application of ethical theories to practical dilemmas in health treatment. Part of Ethics theme. Students who take BIO 328 may not also earn credit for BIO 338. Prerequisite: Junior standing. (3–0–0). Three credits. Offered fall, winter, and summer semesters.

BIO 329 Evolution of Social Behavior. Study of the social behavior of animals from a Darwinian perspective, emphasizing processes through which animal societies are structured and maintained. Vertebrate and invertebrate species will be studied to understand how evolution, social behavior, and social roles are linked. Does not count toward biology or biopsychology majors or biology minor. Part of Perspectives from the Outside theme. Prerequisite: Junior standing. One course in biology or psychology recommended. (3–0–0). Three credits. Offered winter semester.

BIO 333 Systematic Botany. Principles and methods of taxonomy of vascular plants. Prerequisite: 111. (2–0–3). Three credits. Offered winter semester.

BIO 338 Environmental Ethics. Examination of the values, ideas, and technologies that humans have used, are using, and may use in the future with respect to environmental issues. Part of Ethics theme. Students who take BIO 338 may not also earn credit for BIO 328. Prerequisite: Junior standing. (3–0–0). Three credits. Offered fall, winter, and summer semesters.

BIO 340 Microtechnique. Theory, procedures, and techniques of microscope slide preparation using a range of biological materials. (1–0–3). Two credits.

BIO 342 Ornithology. Identification, classification, anatomy, physiology, behavior, and life histories of birds. Prerequisite: 111. (2–0–3). Three credits. Offered winter and occasional summer semesters.

BIO 352 Animal Behavior. Behavior of invertebrates and vertebrates with emphasis on adaptive significance. Prerequisites: Two courses in biology or psychology or permission of instructor. (2–0–3). Three credits. Offered winter semester.

BIO 355 Human Genetics. Principles of genetics with emphasis on human traits and disorders. Genetic counseling, ethical considerations, technological advances, and evolution in human populations are discussed. Will not count toward the biology major without permission. Prerequisite: 112 or 103, or permission of instructor. (3–0–0). Three credits. Offered fall, winter, and occasional spring/summer semesters.

BIO 357 Environmental Microbiology. An introduction to microbiology emphasizing the role of microorganisms in the environment. Surveys microbial lifestyles and the roles of microorganisms in food, water, soil, and industrial microbiology and in nutrient recycling and energy flow. Will not substitute for HS 212 and 213. Prerequisites: 111, 112, and 215 or permission of instructor. (3–0–3). Four credits. Offered fall semester.

BIO 362 Fisheries Biology. Study of the anatomy, morphology, and classification of fishes and their biology, ecology, and evolution. Emphasis on species native to the Great Lakes region. Prerequisites: 111; 112 is recommended. (3–0–3). Four credits. Offered fall semester.

BIO 372 Aquatic Insects. Examines in detail the morphology, ecology, diversity, and significance of aquatic insects, with emphasis on the fauna of local streams and lakes. Students will also gain expertise in the collection, curation, and identification (through use of taxonomic keys) of aquatic insects. Prerequisites: 111, 112, and 232 are recommended. (2–0–3). Three credits. Offered winter semester.

BIO 375 Genetics. Concepts of inheritance in plants, animals, and micro-organisms; both classical and modern investigative techniques are emphasized in lecture and the associated lab, BIO 376. Concurrent enrollment in BIO 376 is required. Prerequisites: 111 (or HS 208) and 112. (3–0–0). Three credits. Offered fall and winter semesters.

BIO 376 Genetics Laboratory. Laboratory exercises in classical and modern genetics. Required of all students taking BIO 375. Prerequisites: Concurrent enrollment in BIO 375 or successful completion of 355. (0–0–2). One credit. Offered fall and winter semesters.

BIO 380 Selected Topics. Readings, lecture, discussions, lab, or field experience (or any combination) on a specific biological topic. Prerequisites: Variable, and permission of instructor. One to four credits.

BIO 390 Seminar. Student presentation of selected topics in biology. Open to junior and senior biology majors and minors. May be repeated once for credit. (0–1–0). One credit.

Biology

BIO 399 Selected Experiences in Biology. Supervised independent laboratory, field, or other scholarly activity in biology. Topic and amount of credit must be arranged with faculty member and approved by department chair before registration. May be elected for up to five credits toward a biology degree. Prerequisite: Permission of department chair. One to four credits are available per semester. Offered fall, winter, and spring/summer semesters.

BIO 403 Plant Structure and Function. Anatomy and physiology of plants, including interrelationships of structure and function in growth, flowering, seed germination, photosynthesis, respiration, water relations, and mineral nutrition. Prerequisites: BIO 111 and 112 and CHM 231 or 241. (3-0-2). Four credits. Offered fall semester.

BIO 405 Cell and Molecular Biology. Investigation of the structure and phenomena of cells at the macromolecular and cellular levels. Prerequisites: 375 and 376; CHM 232 or 242 (may be taken concurrently). (4-0-0). Four credits. Offered fall and winter semesters.

BIO 406 Cell and Molecular Biology Laboratory. A unified experimental approach to cell and molecular biology with emphasis on instrumentation and student initiative. Prerequisite: 405 (may be taken concurrently). (0-0-4). Two credits. Offered fall and winter semesters.

BIO 408 Wildlife Management. Wildlife population management; life histories, census techniques, and habitat evaluation. Prerequisites: 215; 222 and 333 recommended. (2-0-3). Three credits. Offered fall semester.

BIO 411 Genetics of Development and Cancer. An advanced genetics course, covering genetic mechanisms of normal and abnormal development, cancer production, and aging. Current research techniques will be highlighted. Prerequisites: 375 and 376; a human genetics course, and CHM 232 may be substituted. (3-0-0). Three credits. Offered winter semester.

BIO 412 Mammalogy. A survey of the Class mammalia. Topics will include mammalian evolution, zoogeography, ecology, physiology, natural history, and behavior with emphasis on Michigan mammals. Students will gain practical experience in the techniques of field study, identification, and preservation of mammal specimens. Prerequisites: BIO 111 and 215. (3-0-3). Four credits. Offered fall semester.

BIO 413 Freshwater Algae. Detailed study of the freshwater algae of the Great Lakes region. Topics will include the morphology, ecology, physiology, and evolutionary relationships of the major groups. Methods of collection will also be presented, and considerable emphasis given to identification of the regional flora. Prerequisites: 111 and 215. (2-0-4). Three credits. Offered winter semester.

BIO 414 Molecular Biology of the Gene. Explores how genes are expressed and regulated so that tasks such as differentiation, development, homeostasis, and communication are accomplished, and how this is affected by evolution and biotechnology. Prerequisites: 375 and 376 and CHM 232 or 461. (3-0-0). Three credits. Offered fall semester.

BIO 416 Advanced Genetics Laboratory. Experiments with both prokaryotic and eukaryotic organisms will involve techniques of gene induction, ELISA, DNA extraction, isolation and cloning, transformation, protein translation and analysis of genes ligated into expression vectors. Prerequisites: 376; 411 or 414 recommended (may be taken concurrently). (0-0-4). Two credits. Offered winter semester.

BIO 417 International Field Biology. One to three week trips to international locations to study the fauna, flora, ecology of representative ecosystems, climate, geology, paleobiology, environmental problems, and/or human impacts upon the above. The field-based experience is combined with readings, lectures, papers, and discussions. Prerequisites: Variable and with permission of instructor. One to four credits. Offered fall, winter, and spring/summer semesters.

BIO 418 Regional Field Biology. One to three week trips to U.S. regional locations to study the fauna, flora, ecology of representative ecosystems, climate, geology, paleobiology, environmental problems, and/or human impacts upon the above. The field based experience is combined with readings, lectures, papers, and discussions. Prerequisites: Variable and with permission of instructor. One to four credits. Offered fall, winter, and spring/summer semesters.

Note: 400-level courses may be taken for graduate credit with prior approval.

Biology

BIO 422 Embryology. Development in animals from formation of gametes and fertilization to larva or birth or hatching. Emphasis is on process and molecular control. Prerequisites: 111 and 112, 355 or 375, and a course in zoology or anatomy, or permission of instructor. (2-0-2). Three credits. Offered fall semester.

BIO 423 Plant Biotechnology. Study of plant development and its control by hormones, environment and genome, and introduction to current techniques and topics in plant biotechnology, such as anther culture, protoplast preparation and fusion, embryogenesis, organogenesis, genetic transformation and developmental mutants. Prerequisite: 376. (2-0-2) Three credits. Offered winter semester.

BIO 426 Nucleic Acids Laboratory. Investigation of an original problem in molecular biology using advanced molecular laboratory techniques found in most molecular academic and biotechnology laboratories. Introduction to computer DNA sequence analysis and bioinformatics. Prerequisites: 406. (0-0-4). Two credits. Offered fall semester.

BIO 432 Comparative Animal Physiology. Functions of the organ systems of animals, including their regulatory mechanisms. Prerequisites: 111 (or HS 208), 112, CHM 232 or 242. (3-0-3). Four credits. Offered fall semester.

BIO 440 Limnology. Ecology of lakes and streams with emphasis on the physical, chemical, and biological factors affecting their productivity. Prerequisite: 215 or permission of instructor. (2-0-4). Four credits. Offered fall semester.

BIO 442 Fish Ecology. Advanced study of fish ecology, including feeding, habitat selection, mating systems, reproduction, life history strategies, biotic interactions, behavior, survival and adaptations in marine and freshwater habitats. Emphasizes Teleost (bony) fishes in their native ranges; examples include species from around the world. Prerequisites: 111, 112, and 215, or permission of instructor; 222, 352, or 362 recommended. (3-0-0). Three credits. Offered winter semester.

BIO 450 Stream Ecology. Examines the structure and function of stream ecosystems, with emphasis on the physical, chemical, and biological factors that influence flowing-water habitats. Laboratory focuses on the methods of stream ecology, including collection and analysis of physical, chemical, and biological data. Field work emphasizes local stream ecosystems. Prerequisites: 111 and 215 or permission of instructor. (3-0-4). Four credits. Offered fall semester.

BIO 452 Human Evolution. An examination of the fossil, genetic, and behavioral evidence of human evolution within a Darwinian evolutionary perspective. Prerequisites: 111 and 112; or ANT 206 or permission of instructor. (3-0-0). Three credits. Offered fall semester of odd-numbered years.

BIO 460 Terrestrial Ecosystem Ecology. Investigation of the structure and function of terrestrial ecosystems using a systems approach. Biotic and abiotic processes controlling interactions among biogeochemical cycles in ecosystems will be discussed and examined. Topics will include controls on primary production, evapotranspiration, decomposition, and herbivory; and potential for anthropogenic changes in ecosystem processes. Prerequisites: 215; NRM 281 recommended. (3-0-3). Four credits. Offered fall and occasional summer semesters.

BIO 470 Conservation Biology. Theoretical concepts and research applications in the multidisciplinary and applied science of maintaining the planet's biodiversity at the genetic, species, and ecosystem levels. Topics include distribution, functions, and value of biodiversity; causes and consequences of biodiversity loss; conservation solutions; and social, political, legal, ethical, and economic aspects of biodiversity conservation. Prerequisite: 215. (3-0-0). Three credits. Offered winter semester.

BIO 480 Selected Topics. Readings, lecture, discussions, lab, or field experience (or any combination) on a specific biological topic. Prerequisites: variable. One to four credits.

BIO 490 Internship. Practical and applied biology carried out as independent study in specialized areas of biology. Such work will be carried out under the supervision of a faculty advisor and a supervisor at the institution where the work is done. May be elected

Note: 400-level courses may be taken for graduate credit with prior approval.

Biology

for up to six credits toward the major. Prerequisites: Major in biology and permission of the department chair. One to six credits.

BIO 494 Biology in the 21st Century (capstone for Group Science—Biology Emphasis Majors). Four major biological topics that will have significant impact in the 21st century are genetics, food production, environmental degradation, and population growth. Future K—8 teachers will discuss these topics in light of understanding their impact and importance in the science curriculum. Prerequisites: 111, 112, and nine additional credits in biology (the last three credits may be taken concurrently). (2–1-0). Three credits. Offered fall and winter semesters.

BIO 495 Evolutionary Biology (Capstone). Principles and mechanisms of evolution of living organisms. Builds on the knowledge base of the biology core of general biology, ecology, genetics, and molecular biology. Prerequisites: Senior status and 111, 112, 215, 375, 376, and CHM 231 or 241. (3–0-0). Three credits. Offered fall, winter, and occasional summer semesters.

BIO 499 Research in Biology. Can be elected for up to five credits toward the biology major. Number of hours of credit and topic to be arranged with faculty member involved. Prerequisite: A minimum grade point average of 3.0 in biology and permission of the department. One to four credits. Offered fall, winter, and summer semesters.

Graduate Courses

500-level courses may be taken for undergraduate credit only with permission.

BIO 525 Teaching Reproductive Health. The biology of human sexuality from physiological, anatomical, and behavioral perspectives. Emphasizes curriculum development and teaching strategies for K—12 instruction. (3–0-0). Prerequisites: bachelor's degree and teacher certification. Three credits. Offered summer semester of even-numbered years.

BIO 557 Microbiology for Teachers. Microorganisms studied in their roles in the environment, medicine and industry, emphasizing methods and techniques useful for secondary teachers. Lecture and laboratory. Prerequisites: bachelor's degree, including a year each of biology and chemistry, and teacher certification. Four credits. Offered summer semester of odd-numbered years.

BIO 565 Modern Genetics. Lectures and laboratory exercises stressing current knowledge in the field of genetics, including sources of normal and abnormal human phenotypes, gene function and regulation, genetic engineering and its applications, immunogenetics, developmental and behavioral genetics. Prerequisites: bachelor's degree and familiarity with Mendelian genetics. Three credits. Offered summer semester of even-numbered years.

BIO 572 Field Zoology. A survey of animals of the Great Lakes region: their classification, diversity, general features, specialization, habitats, distribution, growth, and reproduction. Collection, identification and preparation of specimens will be emphasized. Prerequisites: One year of college-level biology; bachelor's degree. Three credits. Offered summer semester of odd-numbered years.

BIO 573 Plants of the Great Lakes Area. Identification of flowering plants and ferns native to the Great Lakes area; includes ecology of major plant communities. Prerequisites: One year of college-level biology; bachelor's degree. Three credits. Offered summer semester of even-numbered years.

BIO 575 Ecology of the Great Lakes. Geological history and processes, physical environment, chemical properties, animal and plant communities, and human impact on the Great Lakes and adjacent land areas. Lake Michigan is studied aboard the research vessel D. J. Angus. Prerequisites: One year of college-level biology; bachelor's degree. Four credits. Offered summer semester.

BIO 580 Selected Topics. Readings, lecture, discussions, lab, or field experience (or any combination) on a specific biological topic. Prerequisites: variable. One to four credits.

BIO 675 Methods for Aquatic Ecosystems. A survey of methods used in the study of aquatic ecosystems with an emphasis on large lake ecosystems. Discussions will include applications to the Great Lakes. Classes meet aboard the research vessel D. J. Angus in Grand Haven. Prerequisites: 575; bachelor's degree. Three credits. Offered summer semester of odd-numbered years.

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BIO 680 Special Topics in Biology. Lecture and/or laboratory courses on topics of current interest to graduate students. Offered one time only. One to three credits. Prerequisites: Variable, and permission of instructor.

BIO 699 Research in Biology. Independent research in topics of special interest to the student. One to three credits. May be elected for up to three credits toward a M.Ed. degree. Prerequisite: permission of instructor and department chair.

Biomedical and Health Sciences (HS)

Chair: Hacker. Professors: Callahan, Curry, Hacker, Kopperl, Strickler; Associate Professors: Nieuwkoop, Nochera; Assistant Professors: D. Burg, Capodilupo, Goossen, Hadley, Hecht; Visiting Professor: M. Burg; Peter C. and Pat Cook Research Professor: Pippenger.

Degrees offered: B.S. in biomedical sciences; B.S. in health sciences; master of health science.

The biomedical science major prepares students for careers in biomedical research; medical, dental, osteopathic, and pharmacy schools; and obtaining the Ph.D. in a variety of biomedical disciplines. This major provides a student with a number of exciting and meaningful career paths.

The health science major prepares students for careers in the health professions. For information on the following health-related programs, refer to the respective sections in this catalog: Biomedical Sciences, Movement Science, Nursing, Occupational Safety and Health, Physical Therapy, Physician Assistant Studies, and Therapeutic Recreation.

Students majoring in health sciences may select the general health sciences major or a health science major with an emphasis in clinical laboratory science or exercise science.

A Master of Health Sciences degree program offers an opportunity for practicing allied health professionals seeking career advancement or a higher level of certification. This degree also prepares students for entry into professional programs leading to the Ph.D., M.D., D.O., and D.D.S.

Students have an opportunity to spend a semester or a year studying at Kingston University in the United Kingdom. The School of Life Sciences at KU offers a number of courses that will be accepted as part of the Health Science and Biomedical Science degrees. Contact the department for further information.

Undergraduate Programs

Biomedical Sciences Major

Program Advisors: D. Burg, Curry, Hacker, Strickler.

The biomedical sciences major consists of courses prescribed by professional schools (medical, dental, osteopathic, veterinary, graduate) as essential to the successful completion of a professional school curriculum, plus electives necessary to provide educational breadth and maturity. Although the requirements of professional schools are similar, there are some differences. Because it is impossible to tailor one curriculum to meet the requirements of every professional school, it is the student's responsibility, in consultation with an advisor, to see that the requirements are fulfilled for the particular professional school(s) in which

Biomedical and Health Sciences

the student is interested. This major allows sufficient flexibility to accommodate additional specific professional school requirements. The degree also prepares students for employment in research laboratories in industry, academia, and government.

Career Opportunities

Students majoring in biomedical sciences have multiple career paths. The curriculum provides a student excellent preparation for professional schools such as medicine, pharmacy, dentistry, and osteopathy. Successful students are also highly competitive for graduate education leading to the Ph.D. in such disciplines as anatomy, physiology, cell and molecular biology, microbiology, pharmacology, and biochemistry. In addition to these opportunities of further education, our students are highly qualified for employment in research laboratories in academia, industry, and government. Our students can obtain employment in non-research related fields such as governmental regulatory agencies, and industrial sales positions.

Since 1988, the yearly acceptance rate of our applicants to professional schools has been 67 percent or greater. Biomedical sciences graduates since 1988 have entered programs in a number of institutions within and outside the state, including Michigan State University Colleges of Human and Osteopathic Medicine; University of Michigan Schools of Dentistry, Medicine, and Graduate Studies; Wayne State University School of Medicine; Western Michigan University (physician's assistant program); Chicago College of Osteopathic Medicine; Scholl College of Podiatry; George Washington University School of Medicine; and Georgetown University School of Medicine, as well as graduate Ph.D. programs throughout the nation.

Major Requirements

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. Required health sciences courses:
 - HS 208 Human Anatomy
 - HS 212, 213 Introductory Microbiology
 - HS 280, 281 Human Physiology*
 - HS 301 Introduction to Research in the Health Sciences
 - HS 495 Concepts in Wellness**
3. Required cognate courses:
 - BIO 112 General Biology II*
 - BIO 355 Human Genetics or BIO 375/376 Genetics
 - CHM 115 Principles of Chemistry I
 - CHM 116 Principles of Chemistry II
 - CHM 241 Organic Chemistry I
 - CHM 242 Organic Chemistry II
 - CHM 232 Biological Chemistry or
 - CHM 461 Biochemistry
 - MTH 122 College Algebra

*B.S. cognate course sequence: STA 215; BIO 112; HS 280–281.

**Capstone course.

Biomedical and Health Sciences

MTH 123 Trigonometry
STA 215 Introductory Applied Statistics
PHY 220 General Physics I
PHY 221 General Physics II

4. Six additional hours of upper-division health sciences courses (BIO 422, BIO 405/406 or CHM 461 may be included in these six hours).

Special Emphasis in the Biomedical Major

Microbiology Emphasis

Program Advisors: D. Burg, Callahan, Hecht, Nieuwkoop.

Graduates from this emphasis will be prepared to enter a graduate program in microbiology or biotechnology. In addition, the laboratory-rich aspect of this emphasis will prepare a graduate for becoming a microbiology/biotechnology laboratory technician. Because it is impossible to design one curriculum to fulfill the requirements of every graduate school or laboratory, it is the student's responsibility, in consultation with an advisor, to see that the requirements are fulfilled for the particular school(s)/job(s) in which the student is interested. This major, although directed, allows sufficient flexibility to accommodate specific requirements that various programs may have.

Major Requirements

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. Required Health Science Courses:
HS 208 Human Anatomy
HS 212, 213 Introductory Microbiology
HS 280, 281 Human Physiology*
HS 312/313 Bacterial Genetics
HS 322/323 Bacterial Physiology
HS 499 Research in Health Sciences**
3. Required cognate courses:
BIO 112 General Biology II*
BIO 355 or BIO 375/376 Genetics
CHM 115 Principles of Chemistry I
CHM 116 Principles of Chemistry II
CHM 241 Organic Chemistry I
CHM 242 Organic Chemistry II
CHM 232 Biological Chemistry
or CHM 461 Biochemistry
MTH 122 College Algebra
MTH 123 Trigonometry
STA Introductory Applied Statistics*
PHY 220 General Physics I
PHY 221 General Physics II

* B.S. cognate course sequence: STA 215; BIO 112; HS 280–281.

** Capstone course.

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4. Six additional hours of upper-division science courses from the following:
HS 410/411; HS 412/413; HS 431, BIO 414, and CHM 462.

Health Sciences Major

Program Advisors: D. Burg, Capodilupo, Hadley, Hecht, Kopperl, Nieuwkoop, Nochera.

This is a general curriculum that allows students to pursue a variety of interests. Students are encouraged to work closely with an advisor in choosing coursework. With appropriate course selections, a student may enter the health care network in governmental health services, sales in the pharmaceutical industry, or other businesses supplying health-related products. This major also prepares students for entry into the physical therapy program, graduate studies in public health, environmental health, the basic health sciences, or health care administration and management. This is also the appropriate program for a practicing health care professional with an associate's degree who wishes to receive baccalaureate-level credentials.

Major Requirements

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. 19 semester credit hours of health sciences core courses:
HS 208 Human Anatomy
HS 212 Introductory Microbiology
HS 213 Laboratory in Microbiology
SHP 220 Health Care Delivery
HS 280 Human Physiology
HS 281 Laboratory in Human Physiology*
HS 301 Introduction to Research in the Health Sciences
HS 495 Concepts in Wellness**
3. 27 semester credit hours of required science cognate courses:
BIO 112 General Biology II*
BIO 355 Human Genetics or BIO 375/376 Genetics
CHM 109 Introductory Chemistry
CHM 231 Introductory Organic Chemistry
CHM 232 Biological Chemistry
PHY 200 Physics for the Life Sciences or PHY 220 and 221
STA 215 Introductory Applied Statistics
4. 10 additional semester credits in health sciences courses that must include six hours of upper-division (300- or 400-level) courses (Biology 405 and/or 422 and/or CHM 461 may be substituted for upper-division health sciences courses).

Special Emphasis Areas in the Health Science Major

Clinical Laboratory Science Emphasis

Program Coordinator: Goossen. Clinical Professors: R. Knapp M.D.; J. Mattson, M.D.; G. Rupp, M.D.; D. VanDyke, Ph.D. Clinical Associates: V. Narlock, Ph.D.,

*B.S. cognate course sequence: STA 215; BIO 112; HS 280–281.

**Capstone course.

Biomedical and Health Sciences

MT (ASCP); S. Tomlinson, M.S., M.T. (ASCP), P. Wenk, HTL (ASCP); N. Ramirez, M.T. (ASCP), SH.; J. Zabawski, M.S., CLSp (CG)

Clinical laboratory science includes cytotechnology, cytogenetic technology, histotechnology, and medical technology. Professionals in these areas use scientific methods to aid in the diagnosis, treatment, and prevention of diseases. With the growth of medical knowledge and the resulting demand for laboratory and other diagnostic tests, the role of the laboratorian has evolved from that of a technician to that of a scientist who analyzes problems and decides on a course of action based on a broad knowledge of scientific principles and theories.

Students in clinical laboratory sciences may choose from four areas of specialty: cytotechnology, cytogenetic technology, histotechnology, and medical technology. Within these specialties, students may choose either the “3 + 1” or the “4 + 1” plan. In the “3 + 1” program, students take the clinical practicum (30 semester hours) during their senior year. In the “4 + 1” plan, the clinical practicum is post-baccalaureate. Both plans have relative advantages. Students must work with their program advisors in making their selection.

Upon completion of the baccalaureate degree requirements and the clinical requirements, students are eligible to take the appropriate certifying examination (in cytotechnology, medical technology, or histotechnology).

Career Opportunities

There are many employment opportunities for clinical laboratory scientists in laboratories in university centers, hospitals, governmental agencies, physicians' offices, industry, research, and sales (openings may vary with geographic locations). Advanced training opportunities in specialty areas are also available.

Degree Requirements

Completion of a major in health sciences with an emphasis in clinical laboratory sciences requires the following:

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. The health sciences core requirements:
 - HS 208 Human Anatomy
 - HS 212, 213 Introductory Microbiology
 - HS 280, 281 Human Physiology*
 - HS 301 Introduction to Research in the Health Sciences
 - HS 490 Clinical Practicum in Clinical Laboratory Sciences**
 - or HS 495 Concepts in Wellness**
3. Required science cognate courses:
 - BIO 112 General Biology II*
 - BIO 355 Human Genetics or BIO 375/376 Genetics
 - CHM 115 and 116 Principles of Chemistry I and II
 - CHM 231 Introductory Organic Chemistry
 - or CHM 241 and 242 Organic Chemistry I and II
 - CHM 232 Biological Chemistry

*B.S. cognate course sequence: STA 215; BIO 112; HS 280–281.

**Capstone course.

Biomedical and Health Sciences

PHY 200 Physics for Health Sciences
or PHY 220 and 221 General Physics I and II
STA 215 Introductory Applied Statistics*

4. Clinical Laboratory Sciences Emphasis requirements.

HS 102 Introduction to Clinical Laboratory Sciences
HS 111 Medical Terminology
HS 410 Immunology
HS 416 and 417 Hematology

Additional requirements for cytotechnology and histotechnology:

HS 310 Basic Pathophysiology
HS 450 Human Histology

Additional requirements for cytogenetic technology:

BIO 376 Genetics Laboratory
BIO 411 Genetics of Development and Cancer
BIO 414 Molecular Biology of the Gene
Recommended: BIO 405/406 Cell and Molecular Biology

Additional requirements for medical technology:

HS 412 and 413 Medical Bacteriology
HS 420 Analysis of Body Fluids
HS 432 Medical Mycology
HS 433 Medical Parasitology
CHM 221 Analytical Chemistry

Students in the “3 + 1” program receive a baccalaureate degree upon completion of the required courses and clinical experience (HS 490). Students in the “4 + 1” program receive no college credit for the clinical practicum, because it is completed after they receive their baccalaureate degree. In order to become certified in a specialty, students must take their clinical practicum at a school/hospital that has been accredited by the appropriate agency.

Master of Health Sciences

The graduate program offers the master of health science degree through which students can pursue multiple career opportunities. The program, built on a graduate core requirement, is designed in cooperation with the student’s graduate committee to meet individual career goals in research, doctoral study, as well as health and allied health programs.

The program is designed to accommodate either part-time or full-time students.

Admission Requirements

1. Requirements for graduate admission as identified in the Admissions section of the catalog.
2. GPA of 3.0 (B) from all undergraduate coursework or satisfactory score from the General Test of the Graduate Record Examination.
3. Names of three references.
4. Completion of undergraduate courses in anatomy, physiology, microbiology, and statistics.

Biomedical and Health Sciences

Degree Requirements

1. M.H.S. students must complete a minimum of 33 semester hour credits, including health science graduate core (12 credits) and formal thesis (six credits).

Core (12 credits):

HS 508 Advanced Human Physiology

HS 523 Epidemiology

HS 560 Regional Human Anatomy

HS 601 Experimental Design

Thesis (six credits)

HS 695 Master's Thesis Research

2. Completion of courses of study in a curriculum designed in cooperation with the student's graduate committee.
3. Successful completion of a comprehensive written examination after all didactic coursework has been taken. Students who fail any part of the examination may take another examination within 18 months of the original effort.

Emphasis in Physical Therapy

Baccalaureate-prepared physical therapists may select an emphasis in physical therapy within the Master of Health Sciences program.

Emphasis requirements:

1. Health sciences core courses
2. Additional requirements:
 - HS 528 Neuropathology
 - NUR 642 Teaching Health Professionals
 - HS 679 Clinical Practicum
3. Clinical Tracks:
 - Orthopedics
 - Pediatrics
 - Geriatrics
 - Rehabilitation

Courses of Instruction

Numbers in parentheses at the end of the course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

HS 100 Human Health and Disease. Presents the basic terminology and concepts of medicine and health maintenance for non-science students. Emphasis is on the interaction of technical concepts of health and disease with the political, economic, legal, and ethical aspects of American society. Fulfills Life Sciences Foundation. (3-0-0). Three credits. Offered fall, winter and occasionally summer semesters.

HS 102 Introduction to Clinical Laboratory Sciences. An introduction to principles and practices of cytotechnology, histotechnology, and medical technology and the role of professionals in these fields as members of the health care team. Restricted to freshmen, sophomores, or transfer students, or by permit. One credit. Offered winter semester.

HS 105 Basic Nutrition. An investigation of the bases of nutrition, from a scientific and social-psychological viewpoint. Problems of malnutrition, food as a social phenomenon, and current controversies in nutrition will be discussed. Three credits. Offered fall, winter, and occasionally summer semesters.

HS 111 Medical Terminology. The construction and translation of common medical terms. Much of the instruction is in the autotutorial mode. (2-0-0). Two credits. Offered fall, winter, and occasionally summer semesters.

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HS 202 Anatomy and Physiology. An introduction to the human body, its form and function. With the study of each system, correlations between its function and the functions of other systems are emphasized. Lecture and laboratory. Fulfills Life Sciences Foundation. (3-0-2). Four credits. Offered fall and winter semesters.

HS 205 Food Service Sanitation. An introduction to sanitation in the food service industry for management and employees in restaurants, catering establishments, motels and hotels, and food wholesaling and warehousing companies. Covers food-borne illness and its etiology, safe food handling procedures, food and facility inspection, and management. Lectures and field trips. Three credits. Offered winter semester.

HS 208 Human Anatomy. A lecture course on the gross anatomy of human tissues and organ systems, including pertinent embryology. Prerequisites: C or better in both CHM 109 (or CHM 115) and BIO 112, or in HS 202. (3-0-0). Three credits. Offered fall, winter, and summer semesters.

HS 212 Introductory Microbiology. An introduction to the fundamental principles and techniques of bacteriology, immunology, and virology. Emphasis on the morphology, genetics, and physiology of micro-organisms producing human disease and the human response to these agents. Prerequisites: BIO 112, CHM 231 and 232, or permission of instructor (3-0-0). Three credits. Offered fall, winter, and summer semesters.

HS 213 Laboratory in Microbiology. Laboratory investigation into the morphology isolation techniques, growth, and identification of bacteria. Prerequisite: 212 or concurrent enrollment. (0-0-4). One credit. Offered fall, winter, and summer semesters.

HS 222 Introduction to Public Health. Introduction to the history, philosophy, current concepts, practice, and administration of public health in the United States. Three credits. Offered fall semester.

HS 223 Public Health Concepts. An introduction to the strategies and tactics, both past and present, for the control and eradication of infectious and chronic diseases of humans. Three credits. Offered winter semester.

HS 280 Human Physiology. An integrated study of physiological systems with major consideration given to the mechanisms involved in maintaining homeostasis. Normal function is emphasized, but clinical correlations are included where appropriate. Ordinarily, students enrolled in HS280 should be enrolled simultaneously in HS 281. Prerequisites: HS208 and CHM 231 or 241; prerequisite or corequisite: CHM 232 or 242. A physics course is recommended. (3-0-0). Three credits. Offered fall, winter, and summer semesters.

HS 281 Laboratory in Human Physiology. Prerequisite or corequisite: HS280 or the equivalent. (0-0-3). One credit. Offered fall, winter, and summer semesters.

HS 301 Introduction to Research in the Health Sciences. Introduces students majoring in any of the science programs to basic steps in carrying out research literature searching, critical reading of the literature, experimental design, data analysis, and scientific writing. Published papers and experiments will be analyzed. Students will write a variety of papers and reports. Prerequisites: CHM 231 or 241, STA 215, and one 200-level health sciences course. Three credits. Offered fall and winter semesters.

HS 305 Clinical Nutrition. This course has two objectives: to enable students to understand normal digestion, absorption, and metabolism of nutrients at a sophisticated level, and to make them aware of the nutritional needs of diseased patients. Pathophysiology of the gastrointestinal system will be considered. Prerequisites: 280/281 and CHM 232. Three credits. Offered fall and winter semesters.

HS 309 Laboratory in Human Anatomy. A laboratory course covering the gross anatomy of the skeletal, muscular, nervous, circulatory, respiratory, digestive, reproductive, urinary, and endocrine systems through the use of human cadavers. Prerequisites: B or better in HS 208 and permission of instructor. (0-0-3). One credit. Offered every semester.

HS 310 Basic Pathophysiology. Presentation of disease processes in terms of physiologic dysfunction. Pathophysiology emphasizes the disruption of normal steady state relationships and considers the minor, acute, and chronic aspects of disease. This provides a link between the basic medical sciences and their clinical application. Prerequisites: 212 and 280/281 or permission of instructor. Three credits. Offered fall, winter, and occasionally summer semesters.

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HS 311 Pharmacological Aspects of Health Science. A lecture course designed to introduce nursing and health sciences students to the principles of pharmacology and pharmacological aspects of the major classes of drugs used in the treatment of disease. Special emphasis on nursing implications associated with the clinical use of the pharmacological agents discussed. Prerequisite: 310 or equivalent or instructor's permission. Three credits. Offered fall, winter, and occasionally summer semesters.

HS 312 Bacterial Genetics. An advanced genetics course using micro-organisms to analyze fundamental biological processes: mutation, replication, recombination, and transposition, along with the expression of genes and the processing of their products. Prerequisites: 212/213 or BIO 357, and BIO 355 or 375. Offered fall semester of even-numbered years. (3-0-0). Three credits.

HS 313 Bacterial Genetics Laboratory. A selected set of experiments to demonstrate important principles of bacterial genetics, including basic microbial methodology, mutagenesis, and gene transfer. Prerequisite: 312 or concurrent registration. Offered fall semester of even-numbered years. (0-0-4). One credit.

HS 322 Bacterial Physiology. An advanced microbiology course covering basic principles of prokaryotic physiology. Micro-organisms will serve as a model system for understanding how an organism accomplishes life functions: bacterial growth, nutrition, response, and metabolic processes. Includes how microbial physiology is studied and applications to human physiology, disease, antibiotic production and resistance, and biotechnology. Prerequisites: 212/213 or BIO 356 or permission of instructor. Offered fall semester of odd-numbered years. (3-0-0). Three credits.

HS 323 Bacterial Physiology Laboratory. Investigation of the physiology of bacteria. Analysis of bacterial growth, nutrition, responses to the environment, and metabolic processes. Techniques for analysis of bacterial physiology. Prerequisite: 322 or concurrent registration. Offered fall semester of odd-numbered years. (0-0-4). One credit.

HS 355 Anatomy of Joints. Lecture and laboratory prosection study of the anatomy of synovial joints found in the human limbs, vertebral column, and skull. Emphasis on normal musculoskeletal anatomy. Prerequisite: 208 and 309 or equivalent human anatomy course. (1-0-2). Two credits. Offered winter semester.

HS 365 Clinical Exercise Physiology. Subcellular approach to the study of the acute and chronic effects of activity on the systems of the body. Prerequisites: HS 208 and 280, CHM 232. (2-0-2) Three credits.

HS 375 The Biology of Aging. An introductory course in the anatomical and physiological aspects of the normal aging process, designed for students from a broad range of disciplines. Emphasis will be placed on the normal aging process as it occurs in the majority of the population. Prerequisites: 202 or 208 and 280; credit or concurrent enrollment in SOC 388 or permission of the instructor. Three credits. Offered fall and winter semesters.

HS 380 Special Topics in the Health Sciences. Special topics not regularly offered, but of interest to students in the health sciences. Courses will be listed in the class schedule. Variable credit. Offered fall and winter semesters.

HS 399 Readings in the Health Sciences. Independent, supervised readings on selected topics prearranged with a faculty sponsor and approved by the program chairman. May be elected for one to three hours credit toward a major in any health sciences program, or with permission for group science or biology majors. Prerequisite: Written permission of instructor prior to registration. One to three credits. Offered fall and winter semesters.

HS 406 Nutrition in Pregnancy and Lactation. Provides detailed information on nutritional considerations as they relate to pregnancy and lactation. Prerequisites: 105 and 280. Three credits. Offered winter semester of odd-numbered years.

HS 408/508 Advanced Human Physiology. Emphasis on cellular and molecular mechanisms involved in the functioning of the body systems, with emphasis on central nervous system, cardiovascular, renal, and respiratory systems. Study includes the current research literature and current experimental knowledge. Prerequisite: 280/281 or permission of instructor. Three credits. Offered fall semester.

HS 409 Nutrition in Aging. Provides detailed information on the nutritional needs of the elderly, the physiological and biochemical changes that occur during aging, and how these

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changes affect the metabolism of nutrients. Three credits. Offered winter semester of even-numbered years.

HS 410 Immunology. An introduction to the immune response, including the properties of antigens, immunoglobulins, the theories of antibody formation, cell-mediated immunity, and hypersensitivity reactions. Prerequisites: 212/213, and CHM 232 or 242 or permission of instructor. Three credits. Offered fall semester.

HS 411 Immunology Laboratory. An introduction to serological reactions, including: serum electrophoretic techniques, single and double diffusion in gels, hemagglutination reactions and complement fixation. Prerequisites: 410 or concurrent registration. (0-0-3). One credit. Offered winter semester.

HS 412 Medical Bacteriology. A study of the host-parasite relationships in bacterial disease. The theoretical basis of isolation and identification of medically important bacteria including anaerobic and newly identified pathogens will be included. Prerequisites: 212 and CHM 232 or 242 or permission of instructor. Three credits. Offered winter semester.

HS 413 Medical Bacteriology Laboratory. Isolation and identification of the more common bacterial pathogens with emphasis on current clinical methods and normal flora. Prerequisites: 412 or concurrent registration. Two credits. Offered winter semester.

HS 416 Hematology. An in-depth study of normal blood cell development, morphology, and function. Some common blood dyscrasias will be studied with emphasis on the biochemical and cytological changes involved in the disease process. Prerequisites: 208 and CHM 232 or permission of instructor. Two credits. Offered fall semester.

HS 417 Clinical Hematology Laboratory. An introduction to a wide variety of clinical laboratory procedures with emphasis on accurate performance, theoretical basis of the tests and correlation of the data to disease. Prerequisite: 416/516 or concurrent registration. (0-0-4). Two credits. Offered fall semester.

HS 420 Analysis of Body Fluids. Lecture and laboratory study in the theory and techniques of blood banking, urinalysis, serology, and analysis of other body fluids, designed for students preparing for a career in medical technology. Prerequisites: 280/281, 410 and 416/417. Three credits. Offered winter semester.

HS 427 Neuroanatomy. Covers the organization of the human nervous system with emphasis on the pathways and nuclei of the central nervous system. Prerequisites: 208 and 309. One credit. Offered fall semester.

HS 428 Neurosciences. Covers the function of the human nervous system. Emphasis on somatosensory and somatomotor systems and the cranial nerve nuclei involved in disease. Prerequisite: 427. Three credits. Offered spring/summer session; winter on demand.

HS 431 Medical Virology. A study of the physical, morphological, and biochemical characteristics of viruses. Emphasis on the pathogenesis, pathology, and control mechanisms of viral diseases in people. Prerequisites: 212/213 and organic chemistry or permission of instructor. Three credits. Offered on sufficient demand.

HS 432 Medical Mycology. A study of the human mycoses with emphasis on the pathogenesis and epidemiology of fungal infections. Techniques for isolation and identification of fungi. Prerequisites: 212 and organic chemistry or permission of instructor. (2-0-0). Two credits. Offered fall semester.

HS 433 Medical Parasitology. A study of host parasite relationships in humans. Significant human parasites and the pathogenesis and epidemiology of parasite infection. Prerequisites: 212 and organic chemistry or permission of instructor. (2-0-2). Three credits. Offered winter semester.

HS 461 Prosected Regional Anatomy. A regional approach to the gross anatomy of the human body, with special emphasis on the musculoskeletal system, through the use of prosected cadavers. Prerequisite: Admission to the Physical Therapy or Physician's Assistant Studies program. (3-0-3). Four credits. Offered fall semester.

HS/PED 466 Dynamic Human Performance Lab. Laboratory investigation of human performance capacities using modern techniques of measurement for dynamic assessment of anthropometric, biomechanical, physiological, pulmonary, cardiovascular, and metabolic parameters. Prerequisites: STA 215, PED 402, PED 404, or HS 365. Two credits. Offered winter semester.

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HS 475 The Pathology of Aging. A survey of the disease and functional disabilities of aging. Emphasis is placed on prevention and rehabilitation. Three credits. Offered winter semester.

HS 480 Preprofessional Seminar. A review of the professional school application process, including entrance examinations, application procedures, financial aid, and experiences of past students currently enrolled in professional programs. One credit. Offered winter semester.

HS 490 Clinical Practicum in C.L.S. Theory and practicum in clinical laboratory sciences under the direction of an affiliate program in cytogenetic technology, cytotechnology, histotechnology, or medical technology. Students register for 15 hours in the fall and winter semesters. The 30 credits will be distributed according to which clinical practicum the student completes.

HS 495 Concepts in Wellness (Capstone). This health science course will synthesize the materials students have learned from the health sciences core and cognate courses and enable them to write and present professionally styled communications to an audience of their peers and to instructors. Prerequisites: 208, 212, 280/281, and senior standing (3-0-0). Three credits. Offered fall, winter and occasionally summer semesters.

HS 499 Research in the Health Sciences. Independent, supervised research in special areas of the health sciences prearranged with a faculty sponsor and approved by the program chairman. May be elected for up to three hours credit toward a major in any health science program or, with permission, for group science or biology majors. Offered fall and winter semesters.

HS 508 Advanced Human Physiology. Emphasis on cellular and molecular mechanisms involved in the functioning of the body systems, with emphasis on central nervous system, cardiovascular, renal, and respiratory systems. Study includes the current research literature and current experimental knowledge. Prerequisite: 280/281 or permission of instructor. Three credits. Offered fall semester.

HS 516 Hematology. An in-depth study of normal blood cell development, morphology, and function. Some common blood dyscrasias will be studied with emphasis on the biochemical and cytological changes involved in the disease process. Prerequisites: 208 and CHM 232 or permission of instructor. Two credits. Offered fall semester.

HS 517 Clinical Hematology Laboratory. An introduction to a wide variety of clinical laboratory procedures with emphasis on accurate performance, theoretical basis of the tests, and correlation of the data to disease. Prerequisite: 416/516 or concurrent registration. (0-0-4). Two credits. Offered fall semester.

HS 523 Epidemiology. An introduction to the study of the distribution and determinants of disease frequency in people. Prerequisites: 222 and MTH 215 or permission of instructor. Two credits. Offered fall semester of even-numbered years.

HS 528 Neuropathology. An in-depth course in neuroanatomy, neurophysiology, and neuropathology as they relate to neurological as well as psychological disease states. Special emphasis will be on current models regarding a biological basis for psychiatric and neurological disorders. Prerequisites: 508 or permission of instructor. Three credits. Offered winter semester.

HS 550 Human Histology. A lecture/laboratory course in normal human light microscopic anatomy. Students will learn the microanatomy of the primary tissue types, organs and organ systems. Includes discussion of relevant pathological conditions. Prerequisites: 208 and 309 or equivalent. (2-0-4). Four credits. Offered fall semester.

HS 560 Regional Human Anatomy. A regional approach to the structure of the human body, concentrating on the interrelationships of different anatomical structures in the limbs, thorax, abdomen, pelvis, and head and neck. Prerequisite: 208 and 309 and permission of instructor. (2-0-4). Four credits. Offered winter semester.

HS 601 Experimental Design. Investigation of the steps necessary to select and approach a research problem. Emphasis on the literature search, critical analysis of journal articles, and the preparation of written research proposals. Observation and inductive and deductive reasoning will be discussed. Three credits. Offered fall and winter semesters.

HS 608 Pathologic Physiology. A study of the disease processes in humans from the standpoint of physiologic dysfunction. Primary emphasis will be on the cardiovascular, renal, respiratory, and central nervous system. Other areas may be considered but in lesser depth.

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Prerequisite: 508 or permission of instructor. Three credits. Offered winter semester and occasionally fall semester.

HS 610 Immunological Techniques. A survey of the current immunological techniques for the detection of immune dyscrasias in the quantitation of the immune status of individuals. Laboratory and discussion. (0-1-3). Two credits. Offered on sufficient demand.

HS 611 Theory and Practice of Infection Control. A study of identification and control of hospital-associated infections. Prerequisite: Graduate standing, a microbiology course, or experience as a health care professional; permission of instructor required for others. Three credits. Offered alternate winter semesters.

HS 612 Mechanism of Microbial Pathogenicity. Discussion of the recent advances in the pathogenicities and of infectious disease with emphasis on those caused by bacteria, parasites, and fungi. A seminar format will be used. Prerequisites: A course in medical microbiology or permission of instructor. Three credits. Offered on demand.

HS 616 Advanced Hematology. An in-depth study into the etiology of hematologic diseases. Case studies will be presented with emphasis on the interpretation of laboratory data and in diagnosis of the disease and laboratory tests used to follow the progress of therapy. Prerequisites: 516 or permission of instructor. Two credits. Offered on sufficient demand.

HS 625 Clinical Cardiac Physiology. The study and investigation of the effects of exercise on normal and abnormal cardiovascular physiology, with applications to cardiac rehabilitation. Advanced laboratory methods of physiological testing will be an important component of the course. (2-0-2). Prerequisites: 280, 365, and 460. Three credits. Offered on demand.

HS 655 Advanced Human Anatomy. Students will complete comprehensive morphological study of selected regions of the human body. Methods include dissection, and histologic, embryologic, or pathologic approaches. Prerequisites: 460/560 and permission of instructor. Three credits. Offered fall and winter semesters.

HS 679 Clinical Practicum. Experience in a field placement under a qualified supervisor. A final report and a seminar are required. Prerequisites: All other degree requirements must be completed before, or concurrent with, this course. Three to six credits.

HS 680 Special Topics in the Health Sciences. Supervised study and research in special areas of the health sciences. Must be prearranged with a faculty sponsor. Study may result in a proposal for independent research in the same area. May be elected for a maximum of three hours credit toward degree requirements. Prerequisite: 601. A signed contract must be submitted before registration. One to three credits. Offered fall and winter semesters.

HS 693 Project in Health Sciences. Definition and solution of a problem within the health sciences. The problem may focus on such topics as the development of instructional processes or materials, evaluation or testing procedures and equipment, or other suitable areas of interest. Prerequisites: Completion of all other degree requirements before, or concurrent with, this course. Three credits.

HS 695 Master's Thesis Research. Research in the health sciences directed toward the solution of a problem that has potential implications within the field. Preparation of a formal thesis and presentation of a seminar are required during the final year of the student's program. Six credits total, minimum of three per semester.

Seidman School of Business

Dean: Mielke. Assistant Dean: Gulembo; Faculty: Accounting and Taxation: Cannon, DeBruine, Fanning, Godwin, Goldberg, Grant, Harris, Klein, Lindquist, Martin, Sopariwala, Turner, Veazey, Yuhas; Economics: Dalmia, Isely, Reifel, Sicilian, Simons, Singh, Thorsnes; Finance: Bhagwat, Blöse, Dimkoff, Edwards, Griggs, Swartz, Willey; Management: Castro, Crampton, Dandridge, Douglas, Hall, Hodge, IsHak, Jones-Rikkens, Klein, Koste, Kumar, Larson, Magal, Margulis, McKendall, Mirchandani, Mishra, Motwani, Sanchez, Sanford, Skilton, Swift, Subramanian, Vrancken, Wolterink; Marketing: Benet, Blankson, Cotter, Good, Lane, Levenburg, Rudolph, Wolter. M.B.A. Program Director: Bajema. Undergraduate Student Services Coordinator: Brownley.

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Accreditation: The Seidman School of Business is accredited by the AACSB—The International Association for Management Education. The accounting program has separate programmatic accreditation by AACSB.

Mission Statement

The Seidman School of Business plays an important role as part of a strong regional university. Our commitment is to excel in teaching, to conduct research, and to provide service to the West Michigan region as we help our stakeholders compete in the domestic and international marketplace.

The Seidman School is first committed to teaching, including the development of students' critical thinking, analytical skills, and ethical awareness. Our primary goal is to educate and develop management and professional practitioners with the potential to advance to leadership positions.

We are engaged in basic and applied research and instructional development that complement our teaching mission and service outreach. Through intellectual contributions we strive to contribute to our disciplines, improve our abilities to teach, and enrich our service to the regional community.

In fulfilling our commitment to West Michigan, we respond to internal and external constituencies. Internal committee service contributes to department, school, and university well being. The external needs and demands of our stakeholders in the region are served through a variety of channels including faculty contributions to the region, interfaces with business advisory boards, and outreach efforts through specialized centers and programs within the school.

Programs and Objectives

The Seidman School of Business offers programs in business and economics leading to bachelor of business administration (B.B.A.), master of business administration (M.B.A.), and master of science in taxation (M.S.T.) degrees. The Seidman School also offers a combination M.S.N./M.B.A. in conjunction with the Kirkhof School of Nursing and a dual degree M.B.A./J.D. in cooperation with Michigan State University—Detroit College of Law. The Seidman School in partnership with Michigan State University—Detroit College of Law also offers the opportunity to participate in a “3 + 3” Legal Education Admission Program leading to a B.B.A. and J.D. in approximately six years. For a description of the B.S. and B.A. economics program, see Economics.

Through these programs, the school helps students learn to gather the information upon which effective management is based, make rational decisions on the basis of that information, plan for the effective implementation of those decisions, and monitor their consequences. Students will develop an understanding of the functional areas of business, of the dynamics of competitive and cooperative group process, of formal and informal organizational behavior, and of the culture of business.

Students also will become better acquainted with the external environment of business, gaining a perspective on contemporary global business through historical and international comparisons. They will come to understand more fully the ways in which business and management are responding to current social, economic, political, international, and technological challenges.

Undergraduate students may major in accounting, business economics, finance, general business, international business, management, and marketing. Emphases

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in general management, human resources, manufacturing, operations, and organizational information systems are available in the management program. Emphases in general business economics and real estate business economics are available in the business economics program. There are also opportunities for students who do not wish to enter a degree program to take courses that apply to their professional interests.

In each case, the school makes every effort to accommodate the varying needs of its students. Persons employed full time, for example, can enroll in many evening classes. Those who are not employed can gain valuable experience through internships with area businesses and government agencies.

The Legacy of Seidman

The Seidman School of Business was named in honor of the late Frank Edward Seidman, who for more than 50 years was a distinguished member of the Grand Rapids business community and a partner in the national accounting firm of BDO/Seidman. He was nationally recognized as a business and civic leader, an economist, and a philanthropist. For many years he wrote a newspaper column on business and economics and contributed to numerous professional journals. He was also the co-author of three technical books, *Legislative History of the Federal Income Tax Law*, *Financing the War*, and *Accounting Handbook*.

Mr. Seidman worked for both his bachelor's and master's degrees in commercial science by attending night classes at New York University. He placed a high value on education and was devoted to improving educational opportunities for all persons from all backgrounds. He was especially dedicated to improving the level of competence in the business and public sectors, not only in his own firm, but also in all of the organizations it audited.

He was, in every sense, a creative businessman. His own competence and remarkable qualities of leadership were reflected in the many honors bestowed upon him. He was chairman of the Citizens' Advisory Committee on the Michigan Tax Study and of the Michigan State Board of Accountancy. He was a director of the Grand Rapids Community Chest and the Community Services of Kent County for 25 years and was a long-time director of the Grand Rapids Foundation, the largest philanthropic organization of its kind in the area. As a trustee of the Thomas Erler Seidman Foundation, named for a deceased son, he was instrumental in providing youth-building and educational opportunities for thousands of young persons in the Grand Rapids area as well as funds for the Seidman House at Grand Valley.

In establishing the Seidman School, Grand Valley intended to embody the philosophy, ideas, and spirit of Mr. Seidman and to provide a place to gain an education in business and administration in West Michigan.

Just as quality was the hallmark of Mr. Seidman's efforts, so quality in education has been made the touchstone of Seidman School. Grand Valley's purpose has been to honor the man not merely by affixing his name to the school, but by perpetuating the high ideals to which he personally dedicated himself.

Seidman School Advisory Board

The Seidman School Advisory Board, composed of the dean and three dozen leaders from local, national, and international companies, serves to create and sustain a partnership between the Seidman School and the business community. The Board meets to advise the Seidman School of Business on goals, curriculum,

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and other matters that are of benefit to the continued enhancement of the student body, the School, and the business and public communities.

Accounting Alumni Advisory Board

The Accounting Alumni Advisory Board is composed of at least 15 accountants and meets as needed to advise the school on all matters pertaining to the accounting curriculum and alumni events. Representatives of national, regional, and local accounting firms, presidents of the local accounting associations, and corporate accountants are members of this board.

M.S.T. Advisory Board

The M.S.T. Advisory Board is composed of attorneys and accountants from the professional community who actively support, teach in, and refer students to the M.S.T. program. The board meets at least twice per year.

Seidman Business Services

Seidman Business Services (SBS), located on the Grand Rapids campus, is the outreach program to the business community by the Seidman School of Business. Programs within SBS include the Michigan Small Business Development Center (MI-SBDC)—a partner program of the U.S. Small Business Administration (SBA), the U.S. Department of Commerce Export Assistance Program (USEAC)—and Information Services, the Family Owned Business Institute, the Entrepreneurship Center, and Seidman Business Information Services. The MI-SBDC provides counsel, training, market research, and advocacy for small businesses in Kent, Ottawa, and Muskegon counties. The USEAC provides practical international trade information and quality export counseling. Businesses and organizations can access information and data through SBS, to assist in company planning and decision making. An annual compilation of regional demographic information is gathered in the SBS publication titled “Demographic Profile for the Grand Rapids and Lakeshore Areas.” Seidman Business Services works in partnership with local chambers, business organizations, and municipalities to serve the business community.

Endowed Chairs

L. William Seidman Chair in Accounting

The L. William Seidman Chair in accounting was established to provide financial support to one distinguished accounting faculty member who would advance the accounting profession through teaching, research, and professional outreach activities.

This endowed chair was established to recognize and honor L. William Seidman, who is the former Chairman of the Federal Deposit Insurance Corp. (FDIC). Mr. Seidman received his undergraduate degree from Dartmouth, his law degree from Harvard Law School, and his M.B.A. from the University of Michigan. He is also a C.P.A. and a noted author. He has served as Dean of the College of Business at Arizona State University, as Vice Chairman of Phelps Dodge Corporation, and as Assistant to the President of the United States for Economic Affairs.

Executive-in-Residence

The Seidman School of Business sponsors the Executive-in-Residence program, which gives students and faculty an opportunity to gain personal insight into

the everyday activities and complexities of managing a business. Top executives donate one or more days to teaching and fielding questions from faculty and students in the classroom and in more informal meetings.

Seidman Professional Development Series

The Seidman Professional Development Series is a series of events held on the second Thursday evening of each month during the academic year. These events, open to all business students free of charge, are designed to provide the opportunity for students to develop successful business skills beyond what is taught in the classroom. Seminar topics have included how to work a room, how to pick a company that works for you, giving multi-media presentations that beat the competition, and the annual etiquette dinner.

Student Organizations

Presidents' Council

The Presidents' Council is a group composed of officers from the Seidman School of Business student organizations. Members work together to facilitate interaction among the Seidman student organizations; avoid overlap of extracurricular activities within Seidman; and assist with recruiting and orientation of incoming Seidman students. Members also serve as advisors to the Dean's Office, providing insight and assistance in a variety of areas.

American Marketing Association

The Grand Valley student chapter of the American Marketing Association is an affiliate of the national organization, which strives to advance the discipline of marketing. The national organization consists of more than 22,000 marketing practitioners, educators, and students. The Grand Valley student chapter attempts to enhance student participation in the real world of marketing by sponsoring conferences, seminars, and workshops on the latest topics and issues in marketing. The chapter also exposes students to top marketing professionals, thereby providing valuable business contacts for their future.

APICS—The Educational Society for Resource Management

The Grand Valley student chapter of the APICS, The Educational Society for Resource Management (APICS), is an affiliate of the organization that was established in 1957 to provide professionals and organizations in the manufacturing and service industries with the resources they need to enhance performance and ensure continued success. APICS has more than 70,000 members worldwide and more than 180 affiliated student chapters at college campuses throughout the country. Chapter activities include working closely with the practicing managers in West Michigan through the Grand Rapids chapter; participating in seminars, workshops, and conferences on current topics; fundraising; organizing field trips; and offering social events.

Society for Human Resource Management

Students interested in human resource management are eligible to join the student chapter of the Society for Human Resource Management.

Students who join SHRM join thousands of human resource management executives, staff specialists, and students with similar responsibilities, needs, and issues. SHRM helps members become more effective on the job by offering opportunities

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for idea exchange and numerous career development services including publications, problem-solving channels, professional development aids, public affairs programs, research, and employment assistance.

Delta Sigma Pi

This professional, interdisciplinary, coeducational-business fraternity has a national alumni membership in excess of 120,000 business men and women. The GVSU chapter operates as one of more than 200 currently active collegiate chapters. Membership activities encourage academic and professional development by operating the chapter as a business. Chapter activities include bringing business leaders to campus, conducting fundraisers, organizing field trips, and offering social events. Membership is open to pre-business and business students from all Seidman business disciplines who meet Seidman School academic standards.

The Finance Club

The club's goals are to foster interaction among students interested in finance and to enhance members' career opportunities. The functions of the club include regular meetings, trips, speakers, and social events. Another function is the supervision and management of the SSB student investment portfolio. This portfolio was financed initially with income from the Seidman Endowment and later supplemented with funds from the Henry Crown Fund. Club members decide how funds are invested.

Society for Advancement of Management (SAM) and International Business

The Grand Valley Student Chapter of the Society for Advancement of Management (SAM) is an affiliate of a national organization that strives to integrate different business disciplines. The national organization encompasses more than 160 campus chapters involving practitioners, educators, and students. Membership in the association helps students make the transition from campus to career and is open to all business majors. The association gives students a personal introduction to practicing managers in the local community, exposes students to the most successful management techniques and current views, and provides a forum for students with common interests, problems, and career objectives.

Honors Organizations

Beta Alpha Psi

Beta Alpha Psi is national scholastic and professional accounting fraternity. The primary objective of the fraternity is to encourage and give recognition to scholastic and professional excellence in the field of accounting. Grand Valley State University's Chapter of Beta Alpha Psi is dedicated to enhancing career opportunities and providing a social environment for persons of similar life goals. The Chapter has regular meetings, sponsors speakers, and participates in outreach programs such as the VITA (Volunteer Income Taxpayers Assistance) program, and holds numerous social events. Members have the opportunity to attend the regional meetings held in Chicago and the national meetings held in different cities each year. Membership allows students to learn first-hand about the elements of a successful accounting career and ensures multiple networking opportunities with practicing CPAs.

Membership is open to any part- or full-time student registered as an accounting major at Grand Valley State University with a cumulative accounting GPA of at

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least 3.0 (based on a 4.0 scale) and a cumulative overall GPA of at least 3.0 (or an overall GPA of 3.25 for the last 35 credits).

Beta Gamma Sigma

The Grand Valley State University chapter of Beta Gamma Sigma, a National Honor Society in Business Administration, promotes high scholarship in business education by recognizing and rewarding scholastic attainment in business subjects.

Membership in Beta Gamma Sigma is awarded once each year to certain undergraduate and graduate students who are in the top 5 percent of the junior class, the top 10 percent of the senior class, and the top 20 percent of graduating master's students.

Student Awards

Wall Street Journal Award. Each year the *Wall Street Journal* makes an award to an undergraduate business student. The award is a silver medallion and a one-year subscription to the *Wall Street Journal*. The recipients are selected by Seidman School faculty on the basis of academic excellence, business leadership, contribution to the university, and promise of success.

Accounting Awards. The Beene, Garter & Co., Institute of Management Accountants, BDO/Seidman, and Clipper Belt Lacer accounting awards are presented at the annual spring accounting awards dinner. These awards honor outstanding academic and leadership excellence.

Delta Sigma Pi Scholarship Key. Each year the International Fraternity of Delta Sigma Pi awards the Delta Sigma Pi Scholarship Key to the graduating student with the highest academic average for the four years of study in business administration. All business students are eligible for this award.

Scholarships

Richard H. Giles Memorial Scholarships. Richard H. Giles, founder of the Grand Rapids Arthur Andersen office, was an active member of the business community when he died in 1977 at the age of 39. The Richard H. Giles Scholarship Fund was established in his memory. Each winter semester, the accounting faculty nominates qualified candidates based on academic record and classroom observations. Scholarships are awarded to full-time (averaging 12 credit hours or more per semester) undergraduate degree-seeking accounting majors and full-time (averaging nine credit hours or more) graduate degree-seeking students who show promise of making outstanding contributions in the field of public accounting. Recipients receive a fixed stipend (up to \$2,500 for undergraduate; up to \$4,000 for graduate) toward tuition and fees. Application is by invitation only.

Accounting Alumni Scholarship. The Accounting Alumni Scholarship Fund was established to recognize outstanding full-time and part-time undergraduate accounting students who show promise of making outstanding contributions in the field of accounting. Each winter semester the accounting faculty nominates qualifying candidates based on an academic record and classroom observations. Recipients receive up to \$1,000 (\$500 per semester) toward tuition and fees. Applications are by invitation only.

American Production and Inventory Control Society (APICS) Scholarship. Each year a scholarship is given to an undergraduate or graduate student interested

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in production and inventory control. The student is selected on the basis of scholarship and financial need. The \$600 award is provided by the Grand Rapids Chapter of the American Production and Inventory Control Society.

Grand Rapids Consumer Credit Association Scholarship. Annual awards of \$500 are given to three undergraduate students and one M.B.A. student. Undergraduate recipients must be at least half-time students. Special consideration is given to accounting and finance majors. M.B.A. students may be either full time or part time. The awards are based on scholarship and recipients are selected by a Seidman School committee.

L.V. Eberhard Business Scholarship. One or two \$1,000 renewable scholarships are given each year to entering freshmen majoring in a business field. Applicants must have a minimum 3.5 GPA and 29 ACT composite score. For renewal, students must maintain a 3.0 after 25 credits, 3.25 after 55 credits, and a 3.5 after 85 credits. Recipients are selected by the Seidman School of Business.

L.V. Eberhard Graduate Research Assistantship. One graduate research assistantship is awarded each year. The amount of the award is \$7,500, including tuition. Applicants must have a minimum 3.5 undergraduate GPA and a minimum GMAT score of 600. For renewal, students must maintain a 3.5 GPA. Recipients are selected by the Seidman School of Business.

Newton D. Becker Scholarship Award. Each spring, a graduating senior in the accounting program is given a scholarship to attend the Becker C.P.A. review course.

Earl Harper Management Scholarship. Each year, one \$500 scholarship is awarded to an African-American management major. Qualified students must have earned a minimum of a 2.5 GPA after completing 15 credits at GVSU. The recipient is selected by the Minority Advisory Council.

Marilyn and B. P. Sherwood III Scholarship. One \$500 scholarship is awarded each year to a woman M.B.A. candidate. The candidate may be either a full-time or part-time student. The award is based on both scholarship and financial need. The recipient is selected by a Seidman School of Business committee.

Stephenson Foundation Scholarship. The purpose of this scholarship is to provide distinguished scholarship awards to outstanding students interested in business. Scholarships of \$500 are awarded each year (the number of scholarships depends on the amount of the funding). Incoming freshmen, transfer students, and graduate students may apply. The scholarship will not be automatically renewable, but past recipients will be encouraged to reapply.

Seidman Alumni Association Scholarship. Two \$500 scholarships will be awarded annually—one each to an undergraduate and graduate student in the Seidman School of Business. Consideration is given to ACT scores, previous high school or college GPA, and/or financial need. Students must have at least a 3.0 GPA. Part-time students are eligible to apply. The scholarship may be renewed at the discretion of the Seidman Alumni Association Scholarship Committee.

Business Study Abroad Scholarship. The purpose of this scholarship is to provide support to undergraduate and graduate students of business who enhance their university studies by studying in a foreign country. Scholarships of approximately \$500 will be awarded each year (the number will depend on the amount of funding). Applications can be found on the SSB International Business Programs Web site at www.gvsu.edu/intl-bus/ and must be submitted by April 1.

Undergraduate Business Program

The undergraduate program provides students with business education that blends liberal arts and professional courses with practical application. The programs are designed to prepare students for careers in various business areas as well as for admission into graduate and professional schools.

Admission

The Seidman School admits a select few students directly into the Business School as freshmen each year. This honor is reserved for students who have a 26 or higher composite score on the ACT and a 3.5 or higher high school GPA. In order to continue early-admitted status, students must maintain an overall GPA of 2.75. Students whose GPA falls below 2.75 will be reclassified as pre-business students and will need to reapply to the Seidman School as juniors.

For students not admitted as freshmen, Seidman's admission criteria require a student to have at least 55 semester hours (junior status) with a 2.75 or higher overall GPA. Students who have earned fewer than 55 semester hours and have not been admitted as freshmen are accepted to the Seidman School of Business pre-business program. All freshmen and sophomore business students must complete the university basic skills and general education requirements (see section on "General Education"). This program will develop a base of general education upon which business administration education will rest. Included is a broad spectrum of liberal arts, mathematics, and science courses. After earning 55 semester hours with a minimum 2.75 GPA, students are admitted to the upper-division programs.

During their junior and senior years, students will take a variety of business administration courses in different areas to give them a strong general business and administration background. Additionally, they will complete courses applicable to one of the specific majors offered. Non-business students must have earned 55 credit hours with a minimum 2.0 GPA to be eligible to enroll in upper-division business and economics courses.

Any student with guest student status (a degree-seeking student at another college or university who is taking classes at GVSU for one semester) must meet the criteria set for all Seidman School students. Accordingly, a guest student must be a student in good standing at his or her home institution in order to enroll in any 300- or 400-level courses at the Seidman School of Business. The guest student is advised to bring a transcript at the time of registration.

Academic Review

In order to graduate, upper-division business students must achieve a 2.5 minimum cumulative GPA and a 2.5 minimum cumulative GPA in all Seidman business and economics courses. If the cumulative GPA falls below 2.5, the student will not be permitted to take additional 300- and 400-level business and economics courses. However, such students may repeat 300- and 400-level Seidman business and economics courses for which they received a low grade.

Students may repeat up to three different business and economics courses in their undergraduate career, but no single business course can be repeated more than once. Exceptions are made only with the approval of the Assistant Dean.

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Professional Advising/Scheduling

All routine advising for program requirements and scheduling for undergraduate students is provided by the Seidman Undergraduate Student Services Office, 101B DeVos Center. Appointments are available at either DeVos or Allendale by calling 336-7500. It is the student's responsibility to contact the office for program planning. Freshman and sophomore business students are encouraged to contact any faculty member or the Seidman Undergraduate Student Services Office concerning business career opportunities and advice. A faculty advisor will be assigned when a student is admitted to the upper-division program.

Internship Opportunities

Undergraduate business students are encouraged to become involved in, and receive academic credit for, a work experience directly related to their major. Junior and senior students who wish to apply must have completed at least nine hours of the core program requirements and should have an overall GPA of 2.5 or higher to be eligible. Application forms are available at the Seidman Undergraduate Student Services Office. Students selected will intern a varied number of hours each week depending on the number of credits of the internship. Coordination for each internship is provided by the Seidman Internship Supervisor, and, in a limited number of cases, through the Minority Business Education Center. Students may apply up to six hours of internship and independent research credit, in any combination, toward their degree requirements.

Minority Business Education Center

The Minority Business Education Center Program provides student participants who maintain the required GPA a renewable full-tuition scholarship, and, when possible, up to four summers of paid work-related experience in an accounting or business firm. The program also provides weekly career educational opportunity meetings in which students develop personally and professionally through writing resumes, discussing topics such as time management and how to "dress for success," and holding mock interviews and business etiquette workshops.

For more information and applications, contact the Office of Minority Affairs, 130 Commons, telephone (616) 895-2177.

Transfer Students

Transfer students may receive transfer credit for basic courses in accounting, business law, computing, economics, management, marketing, mathematics, and statistics completed at their junior or community college. Credit may be given for Intermediate Accounting I if the student is able to pass a validation exam. No credit will be given for Intermediate Accounting II.

In all cases, transfer students may apply a maximum of 24 hours of transfer credit for business courses toward their Seidman School business degree and must complete a minimum of five of the twelve business core courses and four of the six business major courses required for the degree at the Seidman School of Business. Five of the seven courses required for a major in accounting must be completed at the Seidman School of Business. It is extremely important that transfer students meet with an advisor in the Seidman Undergraduate Student Services Office before registering for classes.

BBA/J.D. Program

The Seidman School of Business and the Michigan State University—Detroit College of Law have partnered to offer a “3 + 3” program (Legal Education Admission Program—LEAP) that gives GVSU/SSB students the opportunity to earn a BBA and a Juris Doctor (J.D.) in approximately six years.

Interested students complete a minimum of 96 credits comprised of the required undergraduate courses in their first three years of study at GVSU. This includes all university-level requirements as well as the requirements for the specific business major. Upon admission to the law school, Seidman students complete their undergraduate electives with law school courses. Up to 29 credits of MSU—DCL work in which the student earned a 2.0 or above will be accepted. MSU—DCL courses may be applied to the four upper-division elective courses (12 credits) required for the BBA. The BBA will be awarded upon satisfactory completion of the number of credits and requirements necessary for the undergraduate program.

The Legal Education Admission Program (LEAP) is open only to students who matriculate as first-year students at GVSU. Students may apply anytime prior to their senior year for consideration for the program. A Joint Committee comprised of faculty from both institutions will admit students to the LEAP program on the basis of undergraduate record, ACT scores, and other information deemed relevant. In order to be eligible for consideration for final admission to MSU—DCL, “3 + 3” students must have earned an aggregate GVSU GPA of 3.5 or above, scored 156 or above on the LSAT, and satisfied any other current MSU—DCL admission requirements.

Requirements for the B.B.A. Degree

To complete the requirements for graduation with a B.B.A. degree, the following course requirements for a total of 120 hours must be met: general education and basic skills, at least 36 hours; business core, 39 hours; business major, major requirements listed with information on individual majors; cognates and electives (must include an upper-division economics course), 30 hours.

See General Academic Regulations for general education details. It is strongly recommended that students complete all 200-level business core and cognate courses prior to enrolling in 300- and 400-level Seidman School courses.

Business Core

The business core courses acquaint students with various fields in business and helps them learn to communicate, to interact, and to assume responsible positions in their chosen fields. Students majoring in business administration must complete the following core courses:

ACC 212 Principles of Financial Accounting
ACC 213 Principles of Managerial Accounting
BUS 201 Legal Environment for Business
FIN 320 Managerial Finance
MGT 268 Management Information Systems
MGT 331 Concepts of Management
MGT 366 Operations Management
MGT 495 Administrative Policy
MKT 350 Marketing Management

Additional Requirements

Additionally, students are required to take four upper-division Seidman courses not applied to the major, minor, or cognate (12 credits total). Students pursuing

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a second B.B.A. major may apply these courses to the second major. Contact the Seidman Undergraduate Student Services Office for assistance.

Cognate Requirements

ECO 200 Business Economics or both ECO 210 Introductory Macroeconomics and ECO 211 Introductory Microeconomics
Upper-division economics course (not ECO 490)
CS 150 Introduction to Computing
STA 215 Introductory Applied Statistics
Quantitative Group (choose one: MTH 122 Intermediate Algebra, MTH 125 Survey of Calculus, MTH 201 Calculus, PHI 103 Logic, MGT 361 Management Science*)

Electives

Students may elect non-business or business courses to fulfill their elective course requirements. However, at least 60 hours of the total program must be in non-business courses. Students may apply up to six hours of internship and independent research credit, in any combination, toward their degree requirements. Business majors may not take any of their major or cognate courses, except the internship, on a credit/no credit basis. Lower-division economics courses and economics courses used in the B.B.A. cognate are counted as non-business credit. The requirements for each major offered by the Seidman School are presented below.

Accounting

Students who elect to major in accounting may prepare themselves for a variety of accounting careers and fulfill the education requirements for taking the Certified Public Accountant (C.P.A.) and/or the Certified Management Accountant (C.M.A.) examination. Accountancy also provides an excellent undergraduate background for a degree in law.

Accounting majors must complete the business core and take an additional 21 credit hours, as follows: ACC 310, 311, 340, and 414; one of the following three courses: ACC 321, 322, or 329; one of the following two courses: ACC 317 or 318; and one 300/400 level accounting elective excluding 490 and 499. Transfer students must take at least 15 hours of accounting, including ACC 311 and ACC 414 at the Seidman School of Business. A minimum of 90 hours of the total hours required for the degree must be in non-accounting courses.

In order to graduate, accounting students must achieve a 2.5 minimum GPA for upper-division accounting courses. If the GPA for upper-division accounting courses falls below 2.5 (after nine hours are completed) the student will not be permitted to take additional upper-division accounting courses. However, such students may repeat upper-division accounting courses for which they received a low grade. Only upper-division accounting courses in which the student has earned a C- or better may be used to satisfy requirements for an accounting degree. Accounting students must also meet other requirements of the undergraduate business program.

It is suggested that students who want an academic background in financial accounting that fulfills the C.P.A. accounting program requirements complete the business core and take ACC 310, 311, 317, 318, 321, 340, 408, 414, 415, and

*May also be used as one of the four required upper-division elective courses.

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BUS 402. Satisfactory completion of 24 semester credit hours of coursework in accounting, financial, managerial (including cost), auditing, accounting systems, and fund accounting, one tax course, but excluding independent research and internships, as well as satisfactory completion of 24 semester hours in general business subjects, fulfills the Michigan accounting educational requirements to attempt the C.P.A. examination.

Students who want an academic background in management accounting that fulfills the C.M.A. accounting program requirements must complete the business core and are encouraged to take ACC 310, 311, 321, 322, 329, 340, 414, and 415.

Internships are strongly encouraged. Participation in the study-abroad ACC 330 course at Kingston University is recommended.

For students entering the accounting program at Seidman, a basic knowledge of spreadsheets is assumed before enrollment in upper-division accounting courses.

Business Economics

General Business Economics. Students who take this emphasis will focus on applications in business and public policy issues. This 18-credit-hour emphasis can provide careers in banking, insurance services, marketing research and public organizations. An economic emphasis is a solid foundation for graduate programs.

Required courses: ECO 312, 313, 495, and three additional economics electives at or above the 300-level.

The upper-division economics course selected as part of the cognate requirements cannot count as an economics major course.

Real Estate Business Economics. Students who take this emphasis can pursue careers as real estate agents, commercial and residential appraisers, mortgage brokers, commercial lenders, urban planners, title examiners, location specialists, REIT managers, and regional developers. Students who obtain the economics B.B.A. with the real estate emphasis will take the following courses:

Required courses: ECO 312, 313, 435, 436, 495, and FIN 350.

The upper-division economics course selected as part of the cognate requirements cannot count as an economics major course.

The 18 required credit hours specified above complete the real estate economics emphasis requirements. In order to provide a complementary set of skills, any of the following courses are recommended if students have the flexibility to take more courses: FIN 331, PA 307, PA 439, GPY 307, and 309.

Finance

The finance program provides students with an understanding of financial definitions, concepts, relationships, and strategies involving individuals, financial institutions, and non-financial business activities. This 18-credit-hour program is designed to provide fundamental knowledge for careers in banking, financial management, investments, portfolio management and financial planning. It recognizes that finance is becoming an increasingly complex and critical area in the overall management of all types of institutions—business and others—and for individuals as well.

Required courses: Business core, FIN 321, 322, 422 and three other courses from the following list with at least one of three being a finance course: FIN 331, 350,

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380, 420, 428, 429, 490, 499; ACC 310, 311, 318, 321, 322; ECO 312, 313, 414, 480. (Note that the economics course selected for the business cognate cannot count as a finance elective.)

Some West Michigan financial institutions require a minimum of 12 credits of accounting for students who plan to seek positions as credit analysts.

International Business

A major in international business develops a student's ability to meet the challenges of the global business environment. The major trains students to identify and develop appropriate solutions to problems that are unique to doing business internationally. The international business major provides students with a strong grounding in international aspects of business by offering upper-level courses in international management, marketing, finance, accounting, and economics. An important component of the international business major is the requirement that students complete coursework in non-business international culture and foreign languages, and participate in a study abroad program.

Students who pursue the international business major are required to complete a second Seidman major in a functional discipline (such as Finance, Marketing, Accounting, etc.) and a minor in a foreign language or demonstrated proficiency in a foreign language, AND they are required to participate in a GVSU-approved study abroad experience. Students should contact the Seidman Undergraduate Student Services Office early in their program for a suggested pattern of coursework.

Required courses: Business core, five courses from the business disciplines component, one option from the cultural component, a second Seidman major (excluding General Business), and a foreign language minor or demonstrated proficiency in a foreign language. At least six credits of these must be obtained through a GVSU-approved study abroad program. Students who feel they can demonstrate proficiency in a language will be assessed by the Modern Language faculty, based on American Council for Teaching of Foreign Language (ACTFL) guidelines and a personal interview.

Business Disciplines Component

Four courses from the following group: ACC 330, ECO 369, FIN 429, MGT 433, MGT 466, MKT 359.

One course from the following group: ECO 349, ECO 365, PLS 315.

Cultural Component

Global option: GPY 235 or PLS 211 and one course from either Group A or Group B. With advisor approval, courses taken abroad may satisfy courses in this option.

Regional option: Two courses from Group B, both focusing on the same region, is recommended. With advisor approval, courses taken abroad may satisfy courses in this option.

International internship option: Students may substitute up to six credit hours of international internship for cultures courses. Highly recommended.

Group A: GPY 220, GPY 235, PLS 211, PLS 327.

Group B: EAS 201, GPY 355, PLS 283, PLS 221, FRE 225, GER 235, RST 225, PLS 282, GPY 350, GPY 352, LAS 210, LAS 301. Other courses in a variety of disciplines may be used to fulfill this group as approved by the advisor.

Management

The management program includes both a major and a minor (see Minor Programs for a complete description of the management minor).

The management major provides students with a balance of technical and interpersonal skills required to be effective managers and to lead others in a world of constant change and intense competition. This major offers four areas of emphasis.

General Management. This 18-credit-hour emphasis is recommended for students interested in more diverse areas of management and allows for combining interests in areas such as human resource management, organizational information systems and operations management by selecting from a range of courses.

Required courses: Business core and six additional management courses at or above the 300 level.

Human Resources. Study in the area of human resources emphasizes the management of the relationship between an organization and its employees. Business, non-profit, government, and union organizations all need specialists who are trained to respond to employee concerns, administer labor and employment laws, and design policies dealing with diversity and equal opportunity, recruiting and selection, training, performance appraisal, compensation, benefits, discipline, and labor negotiations.

Required courses: Business core, MGT 333, 334, 336, 431, 432, and one of the following: MGT 355, 430, or 433.

Operations Management. This emphasis is designed to prepare a student in the technical and strategic aspects of producing goods and services. (For a more specific focus on manufacturing, see the Manufacturing Management emphasis.) Operations Management involves the application of managerial, quantitative, and computer skills to areas of quality assurance, inventory management, forecasting, and scheduling, with the goal of giving students the tools to effectively manage service and manufacturing operations. SAP, the enterprise resource planning (ERP) software, is integrated into the majority of the operations management courses.

Required courses: Business core and MGT 361*, 362, 365, and two of the following courses: MGT 363, 364, and 467, plus two of the following courses: MGT 337, MGT 342, MGT 367, MKT 457, MGT 466.

Organizational Information Systems. This emphasis provides students with the appropriate knowledge and skills to define, design, and develop E-Commerce and/or Enterprise Resource Planning applications for business. The emphasis provides students with a strong technical background and the business knowledge necessary for them to successfully implement such applications.

Required courses: Business core and CS 160, CS 337, CS 353, MGT 371, MGT 372, and one of the following sets of courses: MGT 451 and MGT 452 (for E-Commerce), MGT 471 and MGT 475 (for Enterprise Resource Planning related to Business Process), or MGT 472 and MGT 475 (for Enterprise Resource Planning related to Technical Administration).

*MGT 361 is an option in the cognate quantitative group and may also be used as one of the required SSB 300/400 level electives.

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If a student has the flexibility to take additional electives, students concentrating on ERP should consider MGT 479, MGT 362, and MGT 451; for those concentrating on E-Commerce, MKT 360 is suggested.

Marketing

A major in marketing gives students appropriate knowledge and skills to understand the function of marketing in the firm and in society. Marketing is the appropriate major for students interested in careers in selling, retailing, product and brand management, promotion, distribution strategy, marketing research, sales management, logistics, purchasing, market strategy planning, distributor relations, and many other related fields. This 18-credit-hour major is very application-oriented and stresses interaction with many leading regional business organizations.

Required courses: Business core, MKT 352, 358, 451, and three additional marketing electives at or above the 300 level.

General Business

The 18-credit-hour major in general business develops students' ability to perceive, identify, and analyze problems, communicate potential solutions, make decisions, and monitor results. By allowing students to take courses in several business disciplines instead of concentrating on a specific emphasis, a major in general business increases students' ability to choose courses that meet their individual needs.

Required courses: Business core; one upper-division business course each in accounting (ACC 317, 318, or 329 recommended), finance, management, and marketing, except independent study or internship; one additional upper-division business elective; and one three-credit business internship. Students may choose the internship experience in any business discipline: ACC, BUS, ECO, FIN, MGT, or MKT. Students with extensive business experience may meet with an advisor to discuss substituting an alternative course for their internship experience.

Minor Programs

Eligible business majors who elect to complete one of the business minors may be required to extend their degree programs beyond the minimum 120-semester-hour university degree requirement.

Accounting

The undergraduate accounting minor program is open to all students except accounting majors. The minor complements major fields of study in other departments or schools and enables students to choose a concentration of courses in a particular area of accounting, such as financial, managerial, and tax.

The accounting minor consists of 18 credit hours. The six courses are made up of two required courses (ACC 212 and 213) and four upper-division accounting courses. Transfer students must complete at least three upper-division accounting courses at the Seidman School. Independent research and internship credits do not count toward the requirements for the minor. Only upper-division accounting courses in which the student has earned a C- or better may be used to satisfy requirements for the accounting minor. Students must achieve a cumulative 2.5 GPA in these courses to receive the accounting minor designation. Courses cannot be taken on a credit/no credit basis.

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The undergraduate minor program in business is for non-business majors and includes 18 credit hours (six courses) taken from the Seidman offerings. This minor is designed to complement major fields of study in other departments or schools. It is not designed to satisfy the requirements for teacher certification. Required courses: BUS 201, ACC 212, ACC 213, FIN 320, MGT 331, and MKT 350. Students must achieve a minimum 2.5 GPA in these courses to receive the business minor designation. Courses cannot be taken on a credit/no credit basis.

Economics

The undergraduate minor program in economics is for both business and non-business students with the exception of those majoring in business economics or economics. Students are required to complete at least 21 hours in economics, including ECO 210 and 211. Students must achieve a minimum 2.5 GPA in these courses to receive the economics minor designation. Courses cannot be taken on a credit/no credit basis.

International Business

The undergraduate minor program in international business is for both business and non-business students with the exception of those majoring in international business and general business. The minor consists of 18 credit hours (six courses). Required courses: ECO 210, four courses from the following list: ACC 330, FIN 429, ECO 365, ECO 349, ECO 369, MGT 466, MKT 359; and one course from the International Business Major Cultural Component Group A or Group B, or a three-credit international internship. Students majoring in any business discipline or economics must select an additional cultures or international business course. Students must achieve a cumulative 2.5 GPA in these courses to receive the international business minor designation. Students must complete all prerequisite courses before enrolling in the international business minor courses. Courses may not be taken credit/no credit.

Management

The undergraduate management minor is an 18-credit-hour program open to all students except management majors. This minor provides students with a foundation in behavioral management, human resources and employment law, ethical and societal issues, and cultural diversity. The minor consists of four required courses and two electives.

The four required courses are MGT 331, MGT 333 or MGT 334, MGT 339 or MGT 438, and MGT 355 or MGT 466. In addition to the four courses, students must complete two electives from 300- and 400-level courses in management. Students can, if they choose, select one of the paired required courses as an elective. However, the same course cannot count as a required and an elective course. Students majoring in a business discipline other than management (i.e., accounting, finance, marketing) who choose a management minor must select as elective two upper-level management courses that are not part of the SSB business core. Students must achieve a cumulative 2.5 GPA in these courses to receive the management minor designation. Courses cannot be taken on a credit/no credit basis.

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Graduate Business Administration and Taxation Programs

The Seidman School of Business seeks mature graduate candidates who, as a result of their work experience or previous college education, are interested in expanding or continuing their professional education in business administration. The school expects these candidates to make effective use of opportunities to obtain academic and program advice from the faculty and program administrators and to make maximum use of the program flexibility to plan courses around their professional objectives. Although program demands are rigorous, the results are exciting and rewarding. Candidates are expected to maintain the highest ethical standards at all times.

Admission Requirements

The graduate business programs are open to qualified individuals with bachelor's degrees from accredited colleges and universities. No particular undergraduate major is necessary, although candidates may be required to complete background coursework in business subjects before attempting advanced work. It is recommended that M.S.T. students have a background in accounting or law.

Candidates are admitted to the master's degree programs in business administration or taxation based on criteria that have been shown to predict success in graduate business programs, including performance on the Graduate Management Admission Test (GMAT); previous undergraduate and graduate academic performance; work experience; and, if the applicant's first language is not English, scores on the Test of English as a Foreign Language (TOEFL).

In making admissions decisions, the Graduate Admissions Committee computes a scholastic index for applicants, as follows: (GPA for last 60 semester hours of undergraduate coursework x 200) + GMAT score. For example, an applicant with a 3.0 GPA and 500 GMAT has an 1100 scholastic index. Using the scholastic index and other information, the committee implements the policies and practices described below.

An applicant with a scholastic index of 1100, including a GMAT score of at least 500, is admitted without further committee review.

Applications with scholastic indexes of 1100, including GMAT scores between 450 and 490, are examined by the committee for predictive indications of success with respect to quantitative and qualitative GMAT scores and grades earned in courses determined to be relevant to the graduate curriculum. The committee's analysis may result in the applicant being required to score higher on the GMAT or to upgrade his or her undergraduate record by completing background coursework with acceptable performance prior to the admission decision. Recognizing that both test scores and previous academic performance are important predictors of success in the M.B.A. or M.S.T. program, acceptable or exceptional performance in background courses does not compensate for an unacceptable GMAT score.

Applicants with GMAT scores above 500 but scholastic indexes below 1100 will be advised by the committee concerning background coursework requirements that will have to be met prior to formal admission.

Applicants whose first language is not English must also score at least 550 on the TOEFL.

Applicants for the M.S.T. program are not required to submit a GMAT score if they have a J.D., M.B.A., or master's of accounting with at least a 3.0 GPA. Applicants for

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the M.B.A. program may request a waiver of the GMAT if they have other graduate degrees and/or have taken other graduate admissions tests. Such requests should be addressed to the committee and submitted to the M.B.A. program director.

Candidates will be given an admission decision for any academic semester for which they would like to begin their studies provided their application, transcripts of prior college work, and GMAT results are in the Admissions Office at least one month before the semester begins.

Individuals not yet admitted to the M.B.A. program may enroll in 500-level background courses, but 600-level course enrollment is generally restricted to students admitted to the M.B.A. program who have also completed the appropriate prerequisite courses and to students admitted to the e-commerce certificate program. The exception to this policy is undergraduate students with senior standing who have completed all prerequisites for the M.B.A. and have at least a 3.0 cumulative GPA and a GMAT score of at least 500 on file with the Graduate Business Office. If their schedule allows, such students may enroll for one or two 600-level business courses that will be applied toward their graduate degree.

Academic Advising

Candidates seeking the M.B.A. or M.S.T. degree can meet with the appropriate program director at the Richard M. DeVos Center in Grand Rapids to discuss career interests, professional objectives, and program plans.

Advising sessions can be scheduled in the evenings for the benefit of candidates who work full time. Candidates should call the Seidman School office at the DeVos Center for an appointment.

Graduate course registration can be completed by phone or at any Grand Valley campus. A program director will assist the candidate in making registration arrangements.

Transfer Credit

A maximum of nine semester hours of transfer credit will be given for appropriate graduate courses completed with a grade of B or better at another accredited college or university. These transfer credits may be substituted for required courses, area of emphasis courses, or general elective credit as determined by the program director. To be considered for transfer, coursework must have been taken within five years of admissions to the Seidman graduate program. No transfer credit will be given for BUS 681.

Academic Review

A cumulative GPA of 3.0 or higher is required in all graduate-level courses. Additionally, a cumulative GPA of 3.0 is required in all 600-level courses. Each candidate must receive a grade of C or better in all graduate-level courses that fulfill graduation requirements for the M.B.A. or M.S.T. degree. In the case of core courses, a grade lower than a C will result in the candidate's having to repeat the course until an acceptable grade is achieved. Elective courses may be repeated or another course substituted to meet the minimum overall GPA requirement.

A graduate candidate whose GPA falls below 3.0 after completion of nine hours of graduate-level coursework will be placed on academic probation. Such candidates must achieve at least a 3.0 GPA overall after the next nine hours of coursework to

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remain in the program. A GPA of 2.0 or below after nine hours of graduate-level courses means automatic dismissal from the school.

Background Studies

Candidates must have a base of underlying knowledge relevant to business. For the M.B.A. program, this background must be in accounting, finance, statistics, legal environment, economics, marketing, and operations. For the M.S.T. program, background work must be in accounting and economics and in at least four of the following subjects: legal environment, computers and information systems, marketing, finance, and statistics. Courses taken to fulfill background studies are not counted as part of the 33-hour requirement for the M.B.A. or M.S.T. degrees. Many individuals will have completed some or all of the courses in their undergraduate programs that fulfill the background studies requirements.

To ensure the integrity of background studies, courses meeting the requirements must be taken at a regionally accredited college or university within five years and have earned a minimum grade of B. Students not meeting these criteria may be required to complete additional comparable background work. A candidate may complete the special accelerated 500-level course(s) offered by the Seidman School in the relevant area(s); complete appropriate courses in the undergraduate program at Grand Valley or any other regionally-accredited, four-year college or university; or pass one or more qualifying examinations after appropriate study. Questions should be addressed to the M.B.A. program director.

Computer word-processing and spreadsheet skills are required for all M.B.A. courses and for most background courses. Those students who are not computer proficient are advised to complete an appropriate undergraduate computer course during their first semester.

Candidates who have not yet become degree-seeking may be allowed to enroll in 500-level courses with permission of the program director. Students choosing to enroll for 500-level coursework prior to admission should be aware that admission requires both an acceptable GMAT score and strong academic performance.

The relationship between background studies and the M.B.A. curriculum requires that all background studies be complete by the time the student enrolls for BUS 601. Students may complete background studies during the same semester in which they enroll for BUS 601.

Background Equivalencies

Background requirements may be met by completion of either the 500-level accelerated courses or the undergraduate equivalent courses as indicated below.

Background Area	Background Course	GVSU Undergraduate Course
Accounting	ACC 511 (3 credits)	ACC 212 and 213 (6 credits)
Statistics	FIN 521 (2 credits)	STA 215 (3 credits)
Finance	FIN 522 (2 credits)	FIN 320 (3 credits)
Legal Environment	BUS 531 (2 credits)	BUS 201 (3 credits)
Economics	ECO 542 (3 credits)	ECO 210 and 211 (6 credits)
Marketing	MKT 551 (2 credits)	MKT 350 (3 credits)
Operations	MGT 561 (3 credits)	MGT 361 and 366 (6 credits)

Degree Requirements

The M.B.A. and M.S.T. programs consist of 33 semester hours of 600-level graduate coursework. Each degree can be completed in one calendar year if the candidate

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has completed all background requirements and studies full time in the Seidman School. If the candidate has not completed background studies, the master's programs can be completed in approximately two calendar years of full-time study. Candidates who intend to study part time and who have completed the background studies requirements can expect to complete the graduate programs within two years by electing two graduate courses each semester, including summer sessions.

M.B.A. Program

All M.B.A. candidates must complete the following four three-credit courses:

BUS 601 The Business Plan
BUS 631 Leadership and Organizational Dynamics
BUS 671 Global Competitiveness
BUS 681 Strategy

In addition, all M.B.A. candidates must complete at least three of the following five directed electives:

ACC 611 Managerial Accounting
FIN 621 Financial Policy for Managers
ECO 641 Business Economics and Strategy
MKT 651 Marketing Management
MGT 661 Operations Management

All candidates registering for 600-level business courses must be degree-seeking in the M.B.A. program or have permission of the program director.

BUS 601, The Business Plan, is designed as application of the theories developed in the background courses. It is to be taken after completion of all background work or in the last semester of background studies. If all background courses are complete, BUS 601 should be the first M.B.A. course in which the student enrolls. The Business Plan will provide students feedback on their strengths and weaknesses and help direct them to electives that will maximally develop their potential. BUS 601 may not be taken as an elective by students completing the M.B.A. curriculum of earlier catalogs.

BUS 601 and other core or directed elective courses may be taken concurrently during the student's first semester of 600-level coursework. All students must complete 33 credit hours of 600-level business coursework, including the core courses listed above and at least three of the five directed electives, also listed above. BUS 681, Strategy, is a capstone course and may not be taken until other core courses and three directed electives are completed.

The balance of the program, two to four additional electives, will depend on the candidate's objectives and career interests and should be planned in consultation with the program director. Individuals choosing a generalist M.B.A. degree should take all five directed electives to provide the breadth of the traditional M.B.A. Individuals wanting depth in a particular area are advised to complete electives in the particular discipline.

M.B.A. candidates wanting a greater depth of exposure to and understanding of taxation may earn an emphasis in taxation by completing four tax courses as the elective portion of the M.B.A. program. The taxation emphasis includes TAX 602, Research and Writing; TAX 604, Corporate Tax I; and any two other TAX courses, excluding TAX 601, and with approval of M.S.T. director. The prerequisite for the

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taxation emphasis is an undergraduate tax course within five years of admission to the program, TAX 601, or approval of the M.S.T. director (as a function of academic and/or professional background).

M.S.T. Program

Each M.S.T. candidate must complete eleven three-credit, 600-level courses. Five courses are required:

TAX 602 Tax Research
TAX 604 Corporate I
TAX 607 Estate, Gift, and Trust I
TAX 609 Partnership Taxation
TAX 616 Taxation Problems, Planning, and Current Issues

Two courses must be selected from:

TAX 601* Federal Tax—General Concepts
TAX 603 Sales, Exchanges, and Other Property Dispositions
TAX 605 Corporate II
TAX 608 Estate, Gift, and Trust II

All candidates registering for 600-level taxation courses must be degree-seeking in the M.S.T. program or have permission of the program director.

All taxation classes not already taken in the seven-course core are available for selection as the four remaining electives.

Combined M.S.N./M.B.A. Program

Seidman School of Business and Kirkhof School of Nursing offer a combined Master of Business Administration and Master of Science in Nursing (M.S.N./M.B.A.). Persons wishing this degree must meet the admission requirements of both schools with the exception that satisfactory performance on only the Graduate Record Exam (GRE), rather than the GMAT, is required. Applicants for the M.S.N./M.B.A. may be admitted to the joint program or to either the M.S.N. or the M.B.A., depending on each division's admission committee review and decision. The combined M.S.N./M.B.A. is designed to prepare graduate nurses for professional opportunities in health care delivery systems.

Requirements

All M.S.N./M.B.A. candidates must complete the M.B.A. background requirements listed above except FIN 521. Also required are the following four three-credit courses:

BUS 601 The Business Plan
BUS 631 Leadership and Organizational Dynamics
BUS 671 Global Competitiveness
BUS 681 Strategy

Candidates must also complete at least three of the following five three-credit M.B.A. courses:

ACC 611 Managerial Accounting
FIN 621 Financial Policy for Managers
ECO 641 Business Economics and Strategy

*TAX 601 is required unless the student has taken a basic income taxation course.

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MKT 651 Marketing Management
MGT 667 Service Management

The MSN curriculum is in transition. Some of the MSN required courses listed below are in the process of being replaced with new courses. Students should consult the Kirkhof School of Nursing for advice.

NUR 520 Theory Development in Nursing
NUR 540 Health Care Delivery
NUR 690 Research Development in Nursing
NUR 692 or 694 Nursing Protocol or Thesis Preparation
NUR 693 or 695 Nursing Protocol or Thesis
STA 610 Applied Statistics for Health Professions
NUR 523 (4,5,6,7,8) Clinical Judgment
HS 608 Pathologic Physiology
NUR 533 (4,5,6,7,8) Health Perspectives
NUR 633 (4,5,6,7,8) Clinical Applications
NUR 648 Administrative Practicum

Candidates may choose to earn the Advanced Practice Nurse in addition to the M.S.N./M.B.A. Completion of the following four additional courses is required for this specialty. Candidates selecting this option are not required to complete NUR 648.

NUR 651 Roles in Advanced Practice
NUR 620 Clinical Pharmacology
NUR 652 Advanced Practice Nursing I
NUR 653 Advanced Practice Nursing II

Descriptions of the M.S.N. courses are contained in the Nursing section of this catalog.

Dual M.B.A./J.D.

The Seidman School of Business and Michigan State University–Detroit College of Law offer the dual M.B.A./J.D. The partnership enables students to transfer 12 credits of Seidman M.B.A. courses to the MSU–DCL J.D. program and 12 credits of J.D. credits to the M.B.A. program, thus reducing the total number of graduate credit hours required to complete both programs from 121 to 97. Prerequisites for both programs must be met in addition to the 97 graduate credits. Participating students must meet the admission standards of each school and must be admitted to both programs prior to registering for coursework that will be transferred to either program.

The transfer work from MSU–DCL will complete the elective portion of the M.B.A. program. Thus, students pursuing this degree will complete, in addition to the M.B.A. prerequisites, the four required core courses and three of five directed electives. Specific coursework to be transferred to the M.B.A. from MSU–DCL must be planned with the M.B.A. program director. Students are referred to the Admissions Office of MSU–DCL for advising for the J.D. and the specific M.B.A. transfer courses.

Independent Study

Individualized study is available for candidates interested in pursuing relevant special interests in areas in which regular courses are not offered. These may

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consist of research projects, theses, problem-solving projects, or other appropriate endeavors related to the candidate's current job and intellectual or career interests.

No independent study or individualized courses will be allowed in areas in which courses exist and are taught at least once per year.

Only graduate degree-seeking candidates who have completed the core requirements or have special permission from the program director may take individualized graduate courses or do graduate-level independent projects.

All independent study topics and the amount of credit to be earned must be approved by the faculty member who agrees to supervise the project. A maximum of three hours of credit can be granted for independent study. The conditions, meeting times, workload, and subject matter concerned with the project are mutually agreed to by the initiating candidate and the assenting faculty member, consistent with standards of quality education. Request forms can be obtained from the program director's office.

Washington Campus Program

Sixteen universities have recognized the importance of training private sector managers and leaders in the art of working with the federal government and have established the Washington Campus Program. These colleges and universities are Grand Valley State, Arizona State, the University of California at Berkeley, the University of California at Los Angeles, Cornell University, Dartmouth College, Georgetown University, Howard University, Indiana University, Ohio State University, the University of New Mexico, the University of Michigan, the University of North Carolina at Chapel Hill, Purdue University, Texas A&M, and the University of Texas at Austin.

The Washington Campus Program offers a unique opportunity for current and future leaders in business and government to gain a basic understanding of how to deal with the problems inherent in business/government relationships by working with policy makers, politicians, regulatory agency personnel, and others who make up the teaching staff and resource persons for the programs.

The program's courses are "Policy Development in the Executive Branch," "Government Regulation," "Congress, Interest Groups, and Lobbying in Washington," and "Domestic and International Economic Policy Issues." These courses are taught by using actual policies, regulations, and current and relevant issues. The instructors for the courses include individuals involved in making day-to-day public policies and carrying them out.

Each summer selected graduate candidates spend a week in Washington, D.C., attending classes, special lectures, and hearings, and conducting library research. The candidates stay in appropriate facilities in Washington. Participants earn three hours of graduate credit and a Certificate of Completion from The Washington Campus Program. For additional information, contact the M.B.A. office.

Study Abroad

Seidman School of Business offers a special topic business course, International Business in Europe, that culminates in a two-week summer session in Grenoble, France. The program is designed to give students an experience-based understanding of issues that affect companies that do business internationally. Students meet regularly during the spring semester and then spend two weeks in France

attending lectures led by ESC Grenoble faculty and meeting with executives from European companies.

E-Commerce Certificate

An e-commerce certificate in marketing is comprised of four specific marketing and management courses (MGT 668 and MKT 652, 654, and 661). The courses are offered in a six-month block, primarily online, and are specially structured and scheduled to maximize the value of the unique combination of course content. The courses must be taken simultaneously with the cohort group. The e-commerce program is offered each winter. Both M.B.A. students and individuals who have earned a B.B.A in the past five years with at least 3.0 GPA are eligible for the certificate program.

M.B.A. students may apply all 12 course credits toward their degree. Others who earn the certificate and later pursue the M.B.A. may apply nine credits toward the M.B.A. degree, if they complete all of M.B.A. requirements within eight years.

Tuition for the e-commerce program includes materials and software and is managed by the Seidman School.

Graduate Assistantships

Graduate assistants work with Seidman School faculty and staff. Qualified full-time candidates are selected on the basis of aptitude, interest, and background.

Undergraduate Courses of Instruction

Following each undergraduate and graduate course description is a listing of the prerequisites required for class registration. It is the policy of the Seidman School of Business that no credit shall be earned for any course if, at any time, it is found that the student has not met the prerequisites as determined by the chairperson of the department offering the course.

Accounting

ACC 212 Principles of Financial Accounting. Introduction to Financial Accounting. Emphasizes the importance of accounting information, how accounting information is produced, and how this information is used in making decisions about organizations. Offered fall, winter, and spring semesters. Three credits.

ACC 213 Principles of Managerial Accounting. Examines the development and use of accounting information for planning, control, and decision-making in today's fast-changing business environment. Cost behavior analysis, ethics, activity-based costing (ABC), budgeting, variance analysis, nonfinancial performance measures, relevant costs for decision making, and total quality management will be examined using spreadsheets wherever applicable. Prerequisites: 212, CS 150. Offered fall, winter, and summer semesters. Three credits.

ACC 310 Intermediate Accounting I. Theory and application of financial accounting. Topics include the accounting cycle, development of accounting standards, financial statement presentation, basic asset/liability/equity transactions, revenue recognition, and the time value of money. Prerequisite: 212. Offered every semester. Three credits.

ACC 311 Intermediate Accounting II. Continuation of theory and application of financial accounting. Topics include basic accounting for assets, liabilities, equity, convertible debt, deferred taxes, leases, pensions, accounting changes, and the cash flow statement. Prerequisite: 310. Offered every semester. Three credits.

ACC 317 Federal Income Tax Theory and Practice—Individual. Consideration of the basic theory and practice applicable to the determination of the taxable income of individuals. Tax research is included. Offered fall and winter semesters. Prerequisite: 212. Three credits.

ACC 318 Federal Income Tax—Corporations, Partnerships, and Fiduciaries. Federal income tax regulations, principles, and practices as applied to corporations, partnerships, estates,

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and trusts. Tax-planning and form preparation will also be included. Prerequisite: 212. Offered fall and winter semesters. Three credits.

ACC 321 Cost Accounting I. This course will examine cost accounting activities such as activity-based accounting (ABC) and activity-based management (ABM), special analysis for decision-making, product and service pricing, cost-volume-profit analysis, flexible budgeting, strategic analysis, theory of constraints, transfer pricing, capacity management, performance evaluation and sales, profitability, mix, yield, and productivity variances. Prerequisite: 213. Offered fall and winter semesters. Three credits.

ACC 322 Cost Accounting II. This course will examine cost accounting topics such as product cost determination, cost estimation using regression analysis, costing systems such as job costing, process costing, and standard costing, cost allocation techniques, joint cost allocations, and master budgets. Prerequisites: 213 and STA 215. May be offered any semester. Three credits.

ACC 329 Seminar in Management Accounting. Identification, description, and analysis of the behavioral science applications for management accounting and world class manufacturing concepts. Prerequisite: 213. May be offered any semester. Three credits.

ACC 330 International Accounting. Survey of the major differences between accounting systems around the world and the business practices and environments within which these systems developed and function today. Basic study of the accounting issues affecting multinational companies, including consolidations, price changes, and inflation, foreign currency transactions and translation, transfer pricing, and international taxation. Prerequisite: ACC 212. May be offered any semester. Three credits.

ACC 340 Accounting Systems. Fundamental concepts of information, communication, and system that form the framework of the design of data processing and accounting systems. Prerequisite: 310. Offered fall and winter semesters. Three credits.

ACC 380 Special Studies in Accounting. To be arranged with a full-time faculty member with the approval of the department chairman. Offered as demand warrants. A maximum of three hours of credit may be applied to the degree requirements.

ACC 408 Governmental and Non-Profit Accounting. Accounting and auditing principles and fund accounting for governmental and non-profit entities. Prerequisite: 213. Offered fall and winter semesters. Three credits.

ACC 412 Intermediate Accounting III. Detailed analysis of theory and application of financial accounting. Topics include accounting for more troublesome aspects of assets, liabilities, equity, options, EPS, deferred taxes, leases, pensions, accounting changes, and the cash flow statement. Prerequisite: 311. Offered fall semester. Three credits.

ACC 414 Auditing Theory and Practice. Professional development in the basic concepts of auditing. Internal control procedures, diagnostic analysis techniques, substantive testing, collecting and analyzing evidential data, and the accountant's report are discussed. A short microcomputer case is used. Prerequisites: 310, 340. Offered fall and spring semesters. Three credits.

ACC 415 Advanced Accounting Problems. Special accounting problems related to business combinations, cash management, foreign currency translation, and financial statement analysis. Prerequisite: 311. Offered winter semester. Three credits.

ACC 419 Seminar in Financial Accounting. Identification and analysis of contemporary issues and problems in the area of financial accounting through case analysis. Prerequisites: 310. May be offered any semester. Three credits.

ACC 490 Accounting Internship. This course will be used to grant accounting credit to students who complete internships in the accounting field. One to six credits. Prerequisites: Junior standing; minimum 2.5 GPA. Offered on a credit/no credit basis.

ACC 499 Independent Research. Independent research in the student's area of interest, supervised by a member of the Seidman faculty and culminating in a written and oral report. Written permission of instructor required. Offered each semester. One to three credits.

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BUS 101 Introduction to Business. Introduces the disciplines of Business Law, Marketing, Management, Finance, Accounting, and Economics; seeks to synthesize them into a general view of business; and briefly explores business careers. Primarily for freshmen interested

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in business, it is open to all students except upper-division students in the Seidman School of Business. Offered fall semester. Three credits.

BUS 201 Legal Environment for Business. The legal, regulatory, and ethical environment in which business operates is explored, with emphasis on the regulation of business, international law, environmental law, ethics, the political and social factors influencing case and statutory law, contracts, employment law, and business organizations. Offered every semester. Three credits.

BUS 380 Selected Topics in Business. Topics covered will reflect special interests of the students and/or the instructor. Prerequisite: Permission of instructor. Offered as demand warrants. One to three credits.

BUS 399 Readings in Business. Independent, supervised readings on specific, advanced areas of business. Must be prearranged with appropriate faculty members. May be elected for up to three hours credit toward a B.B.A. degree. Open to juniors and seniors only. Offered on sufficient demand.

BUS 402 The Accountant's Legal Environment. An intensive course in business law with emphasis on those subjects that relate to the accountant's legal environment, including accountant's legal liability, federal securities regulation, sales law, insurance suretyship, antitrust law, secured transactions, bankruptcy, property law, etc. Offered winter semester. Prerequisite: ACC 310. Three credits.

BUS 490 Business Internship. This course will be used to grant business credit to students who complete internships in business generally rather than in a specific discipline. Prerequisites: Junior standing; minimum 2.5 GPA. One to six credits. Offered on a credit/no credit basis.

BUS 499 Independent Research. Independent research in the student's area of interest, supervised by a member of the Seidman faculty and culminating in a written and oral report. Written permission of instructor required. Offered each semester. One to three credits.

Economics

ECO 100 Current Economic Issues. Examination of current social issues from an economic perspective, such as drugs, rent control, environmental pollution, poverty, crime, and the distribution of medical care. Recommended for students interested in current issues. Students with any economics course at ECO 200 and above cannot take this course for credit. Fulfills Social Sciences Foundation. Offered fall and winter semesters. Three credits.

ECO 200 Business Economics. Analysis of business issues, including: demand and market pricing strategies, supply and production costs, profit maximization of firms in different markets, monetary and fiscal policy, and business cycles. Cannot be taken for credit if credit obtained for ECO 210 or 211. Suitable only for students with strong analytical skills. Prerequisites: MTH 110, sophomore standing recommended. Three credits. Offered every semester.

ECO 210 Introductory Macroeconomics. Introduction to the study of the national and global economies. Topics include the effects of government taxation and budget deficits on economic growth; ways to alleviate unemployment, inflation and international trade imbalances, and the importance of expectations and decision-making in an uncertain world. Prerequisites: MTH 110, sophomore standing recommended. Fulfills Social Sciences Foundation. Three credits. Offered every semester.

ECO 211 Introductory Microeconomics. Focuses on the interactions among households, producers, and governments in market economies. Applies fundamental methods of economic analysis to topics such as household spending and saving patterns; producer pricing, profits, and organization; wages and income distribution; investment decisions; health care and insurance; government taxes, spending, and regulation of markets. Prerequisites: MTH 110, sophomore standing recommended. Fulfills Social Sciences Foundation. Three credits. Offered every semester.

ECO 312 Applied Microeconomics. Applies microeconomic analysis to business, personal, and public decisions. Topics include business cost and output decisions; consumer demand; pricing and allocation of goods, services, labor, and other resources in competitive markets; strategic pricing across markets; impact of government policies, services, taxes, and regulations on market operations. Prerequisites: 211 or 200. Three credits. Offered every year.

ECO 313 Business Cycles and Growth. Topics include analysis of economic fluctuations and their impact on corporations and consumers; different explanations for business cycles;

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monetary and fiscal policy for stabilizing economic fluctuations; effects of public debt, investment, employment, and trade policy on economic growth. Prerequisites: 210 or 200. Three credits. Offered every year.

ECO 341 Economics of Business Strategy. Practical application of microeconomic methods to business decisions. Topics include current issues in consumer demand; business organization, cost decisions, and pricing strategies; decision making under uncertainty and risk management; projections using supply/demand analysis; information, incentives, and employee compensation; and cost-benefit analysis of investment projects. Prerequisites: 211 or 200. Three credits. Offered every other year.

ECO 342 Strategic Games. The basic principles of game theory are analyzed to provide insight into real-world problems. Ability to construct simple games from actual situations and derive implications about expected behavior. Developing strategic responses for policy analysis and in response to competitor moves. Prerequisite: Completion of Mathematical Science Foundation. Part of Creativity theme. Three credits. Offered every winter.

ECO 345 Environmental and Resource Economics. Develops a systematic economic framework to analyze market and government allocations of natural and environmental resources. Topics include relationships between population growth, land development, and environmental quality; regulatory versus market oriented environmental policies; supplies and prices of mineral and energy resources; harvest and protection of forests and fisheries. Prerequisites: 211 or 200. Part of Earth and Environment theme. Three credits. Offered every other year.

ECO 349 Emerging Markets Issues. Important problems in emerging markets throughout the world. Includes policies to stimulate growth via international trade; foreign aid and multinational investment in transitional economies; the use of natural resources and agriculture in economic development; and the human resource issues of education, health, and migration. Prerequisites: 210 or 200. Three credits. Offered every other year.

ECO 350 Gender and Economics. Analysis of gender differences in employment and earnings. Topics include allocation of time between the household and the labor market, employment and family structure, theories of discrimination, antipoverty programs, comparable worth, parental leave, and affirmative action. Historical trends and cross-cultural comparisons are discussed along with current U.S. conditions. Part of Gender, Society, and Culture theme. Three credits

ECO 355 Business, Antitrust, and Regulation. In light of the structure, conduct, and performance of American private enterprise as revealed by empirical evidence, this course discusses the intent and actual effects of antitrust policy, regulation, and deregulation. Included will be studies of specific industries. Prerequisites: 211 or 200. Three credits. Offered once a year.

ECO 360 Employment, Wages, and Productivity. The study of labor market issues using economic analysis. Topics include composition of the labor force, productivity improvements, effects of international trade and migration on wages and employment. Policy issues include minimum wages, welfare programs, OSHA, education and training, and discrimination. Prerequisites: 211 or 200. Three credits. Offered every other year.

ECO 365 Comparative Economic Systems. Relative to such economic goals as economic freedom, full employment, growth, efficiency, consumer welfare, equitable distribution of income and security, how well do alternative economic systems perform? This course studies contemporary, evolving capitalist, socialist, and mixed systems in different countries. Prerequisites: 210 or 200. Three credits. Offered every other year.

ECO 369 International Economic Issues. Selected topics in both international trade and international finance. Includes preferential trading arrangements such as NAFTA and the European Union; analysis of barriers to trade and arguments for and against protectionism; the influence of exchange rates on capital flows; and the relationship between international trade and economic growth. Prerequisites: 210 or 200. Part of Global Change theme. Three credits. Offered every year.

ECO 380 Special Topics in Economics. Studies of selected authors, concepts, movements, periods, theories or countries. Topics and prerequisites will be listed in the class schedule. One to three credits.

ECO 414 Money and Banking. Contemporary issues related to the role of money in a modern economy, regulation and performance of banks, and the Federal Reserve Bank's policy to

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control economic fluctuations and promote growth. Prerequisites: 210 or 200. Three credits. Offered every year.

ECO 435 Urban Economics. Topics include the urbanization process, the city as an economic system, location analysis, poverty, housing, pollution, transportation, and public finance. Prerequisites: 211 or 200. Part of the Cities theme. Three credits. Offered fall semester.

ECO 436 Real Estate Economics. Develops an economic framework for understanding urban real estate markets. Topics include: the determinants of land prices and urban spatial structure, the characteristics of the urban housing market, factors that influence business locations, characteristics of commercial real estate markets, and the response of real estate markets to business cycles. Prerequisites: 211 or 200. Three credits. Offered fall semester.

ECO 440 Public Finance. The justification for the provision of some goods and services by government, analysis of government decision-making, the design of fair and efficient taxation, and the relationships among federal, state, and local government. Prerequisites: 211 or 200. Three credits. Offered winter semester.

ECO 480 Econometrics and Forecasting. Gives students a working knowledge of sources of economic and business data, empirical model building, and economic interpretation of statistical results. Topics include regression analysis, designing models, forecasting and hypothesis testing. Emphasis on business and policy applications. Prerequisites: 200 or 210 or 211, and STA 215. Three credits. Offered every other year.

ECO 490 Economics Internship. This course will be used to grant economics credit to students who complete internships in the economics field. May not be used to fulfill the upper-division cognate requirement for business majors. One to six credits. Prerequisites: Junior standing; minimum 3.0 GPA. Offered on a credit/no credit basis.

ECO 495 Senior Economic Project (Capstone). Seminar-style course in empirical methods in economics. The nature of empirical methods and their relationship to economic theory is discussed. Presentation and discussion of empirical papers from the literature. Economics faculty may present own research. Students will design, conduct and present an empirical research paper. Prerequisites: 312, 313, one of which may be taken concurrently. Three credits. Offered winter semester.

ECO 499 Independent Study and Research. Independent study in an area of interest to the student, supervised by a member of the economics faculty and cumulating in a written and oral report. One to four credits. Offered fall and winter semesters.

Finance

FIN 221 Personal Finance. Designed for the non-finance major who wants to improve the management of personal finances. Aspects of finance that individuals are likely to face will be discussed. Specific topics include credit buying and borrowing, insurance, home ownership, stock and bond investment, mutual funds, income taxes and estate planning. Offered fall and winter semesters. Three credits.

FIN 320 Managerial Finance. Financial policies and practices that lead to the maximization of the value of a firm. Major topics include risk and return, management of current assets, capital budgeting, sources of financing, and optimum capital structure. International financial implications are considered. Prerequisites: ACC 212 and MTH 110. Offered every semester. Three credits.

FIN 321 Investments. Fundamental principles of investment, characteristics of investment and speculative assets, analysis of risk and return, operation and regulation of markets, analysis of investment requirements, types of investment trading, and timing strategies. Prerequisites: FIN 320 and STA 215. Not to be taken concurrently with FIN 320. Offered fall and winter semesters. Three credits.

FIN 322 Intermediate Managerial Finance. A second course in financial management required for all finance majors. Goes into more depth than FIN 320 and covers many additional topics. Coverage includes capital structure decisions, working capital policy, current liability management, optimal capital budgets, dividend policy, and lease financing. Prerequisite: 320, ECO 200, ACC 213, and STA 215. Offered fall and winter semesters. Three credits

FIN 331 Risk and Insurance. Risk analysis and insurance. Planning personal and business insurance. Business insurance as it relates to business risks and decision-making. Emphasis on business exposures, coverages, and problems of the risk manager. Prerequisite: Junior standing or permission. Offered fall semester. Three credits.

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FIN 350 Real Estate Principles. An introduction to the basic principles of real estate administration. The legal and economic characteristics of real estate, real estate markets, appraising methods, government and political trends, and regional and local economic influences. Junior standing or permission of instructor. Offered fall and winter semesters. Three credits.

FIN 380 Seminar in Finance. Course content varies. Refer to schedule of classes to determine course description and prerequisites. Students may repeat this course under different topics. Offered on demand. Three credits.

FIN 420 Bank Management. Financial management of commercial banks and other financial intermediaries. Examination of banking structure and current regulatory environment. Specific techniques of evaluating risks, liability management, and determining asset composition. Concepts of capital adequacy and liquidity management. Prerequisite: 320. Offered fall semester. Three credits.

FIN 422 Advanced Managerial Finance. Application of principles of finance to solving selected business case problems and analyzing current financial topics. Prerequisite: 322. Offered fall and winter semesters. Three credits.

FIN 423 Financial Institutions and Markets. An overview of the whole financial system. Analysis of money and capital markets, securities, interest rates as well as financial institutions and new developments in the financial system. Prerequisites: 320; Economics 414 recommended. Offered fall and winter semesters. Three credits.

FIN 428 Security Analysis and Portfolio Management. A sophisticated analysis of investment securities from the viewpoint of establishing meaningful evaluation techniques. Develops practical strategies for constructing efficient portfolios by the study of risk analysis, random walk, and other theoretical concepts. Prerequisite: 321. Offered winter semester. Three credits.

FIN 429 International Financial Management. Covers the application of the tools, techniques, and the underlying theory essential for financial management in an international setting, including those required for financing and control. Topics covered also include international accounting, effects of fluctuating exchange rates, overseas investments, and the structure and function of international financial institutions and markets. Offered fall semester. Three credits.

FIN 490 Finance Internship. This course will be used to grant finance credit to students who complete internships in the finance field. One to six credits. Prerequisites: Junior standing; minimum 2.5 GPA. Offered on a credit/no credit basis.

FIN 499 Independent Research. Independent research in the student's area of interest, supervised by a member of the Seidman faculty and culminating in a written and oral report. Written permission of the instructor required. Offered each semester. One to three credits.

Management

MGT 268 Management Information Systems. Managers require timely, up-to-date, accurate information to facilitate decision-making. This course will increase the understanding of information systems and their related technologies, including analytic, human, and technical resources available to aid the decision-making process. Prerequisite: CS 150. Offered every semester. Three credits.

MGT 320 CAD Applications: ARRIS. Introduces ARRIS, a PC-based computer-aided design and facilities management (CAF) tool. Students learn basic concepts and techniques for three-dimensional spatial modeling. Assignments are used to demonstrate knowledge of concepts and skills with the software. "Real life" assignments are used when available. Three credits.

MGT 331 Concepts of Management. The management process through an examination of its functions of planning, organizing, motivating, and controlling work, and work performance in a business organization. Theoretical concepts and applications through the use of selected case materials. Offered every semester. Three credits.

MGT 333 Human Resource Management. The historical evaluation, structure, policies, and practices of human resources departments. The work of these departments in acquiring, training, and developing human resources, facilitating corporate communication, motivating employees, setting appropriate wage and salary levels, and facilitating union relations are introduced. Prerequisite: 331. Three credits.

Business

MGT 334 Labor and Employment Law. Analysis of major labor and employment laws affecting management practice. Specific topics include National Labor Relations Act, Title VII, Americans with Disabilities Act, Affirmative Action, Fair Labor Standards Act, and the Occupational Health and Safety Act. Also considers significant tort legislation, including wrongful discharge, privacy and defamation. Three credits.

MGT 336 Compensation and Benefits Management. Provides students with an understanding of the compensation system. Emphasis on the design, development, and implementation of a total compensation system that balances internal consistence with external competitiveness. Prerequisite: 333. Three credits.

MGT 337 Purchasing and Materials Handling. Examines the organization of a purchasing department, its objectives, functions, and personnel. Purchasing specifications, standards, bidding, ordering, and sources are among the topics covered. Discussion and analysis of the duties and responsibilities of the materials handling manager in a typical manufacturing firm. Specifically, the handling of materials in the manufacturing process is discussed, including coordination between manufacturing departments and plants within a firm. Three credits.

MGT 339 Business and Society. Explores the evolving relationship between business institutions and societal institutions through a variety of disciplines (e.g., economic and social history, industrial sociology, organizational theory, business ethics) and a variety of media (e.g., historical narratives, literary materials, articles from academic journals, newspaper reports, and films). Offered every semester. Three credits.

MGT 342 Facilities Structure and Maintenance. Addresses planning, designing, implementing, and managing work environments as physical systems. Foci include architectural design, space planning and maintenance, environmental support systems, building structural subsystems (e.g., walls, floors, windows, ceilings), energy distribution, telecommunications, building operations, and maintenance, health, safety, security; building codes. Three credits.

MGT 345 Team Building. A class which integrates theory and application by teaching students how to be effective members of a work team. Emphasis on both logical and creative problem solving. Dynamics and processes within teams serve as the focus of analysis, learning, and practice. Part of the Creativity theme. Offered every year. Three credits.

MGT 355 The Diversified Workforce. An examination of the experiences of different groups in the U.S. workforce, including race, ethnicity, gender, age, disability, and sexual orientation. Cultural differences are explored and a consideration is given to the ways in which organizational norms operate to include or marginalize different groups of people. Fulfills U.S. Diversity requirement. Part of Perspectives from the Outside theme. Three credits.

MGT 361 Management Science. Application of the scientific, mathematical, and quantitative methods to managerial decision-making under conditions of certainty, risk, and uncertainty. Specific topics include, linear programming, transportation, assignment, project management, queuing theory, decision analysis, and simulation. Prerequisites: CS 150, STA 215. Offered every semester. Three credits.

MGT 362 Computers in Operations Management. Familiarizes students with the modeling, methodologies, and software used in developing operations management systems. Prerequisites: 366 and 368. Offered once yearly. Three credits.

MGT 363 Managing Quality. Provides students with an overview of total quality management. Emphasis on philosophy, tools, and the integrated systems for the continuous improvement of process and product quality. Offered once yearly. Three credits.

MGT 364 Service Operations Management. An overview of the planning, controls, and designs of operations in the service industry. Emphasis on the application of economic principles, decision tools, and models to solve problems encountered in the service environment. Offered once yearly. Three credits.

MGT 365 Strategic Management of Operations. Designed to enhance comprehension of the operations management function at the strategic level to gain experience in identifying and analyzing strategic problem situations and to develop recommendations for action. Prerequisites: 366. Offered once yearly. Three credits.

MGT 366 Operations Management. Application of strategic and quantitative tools and techniques in manufacturing and service organizations. Specific topics include manufacturing strategy formulation, forecasting, aggregate planning, scheduling, Just In Time, management and assurance of quality, inventory management and advanced technologies. Prerequisites: 331 and STA 215. Offered every semester. Three credits.

Business

MGT 367 Manufacturing and Planning and Control. Basics course in manufacturing planning and control. Topics include capacity planning, forecasting, production activity control, master productions scheduling, production planning, independent demand inventory management, material requirements planning, and just-in-time. Offered fall semester. Three credits.

MGT 371 Business Systems and Change. Designed to provide students with theoretical foundations and practical experience in planning and designing IS. The conceptual foundations include change management and job redesign. Students develop assessment tools, and collect and analyze data in an actual field project. Prerequisites: 368. Offered once yearly. Three credits.

MGT 372 Managerial Application of Communication Technology. Use of the case study method to study different applications of a wide variety of communications technologies for business application as they relate to the end user environment such as: groupware tools, local area networks, Internet, list servers, teleconferencing, videoconferencing, voice mail, and voice/data network management. Prerequisites: CS 337, MGT 368. Offered once yearly. Three credits.

MGT 380 Selected Topics in Management. Analysis and discussion of advanced topics, contemporary problems, and new or controversial topics. Specific topics will reflect interest of students and instructors. Prerequisite: Permission of instructor. Offered on sufficient demand. Three credits.

MGT 430 Organizational Development. Examines change as a dynamic and essential process in organizations and explores the manager's role as a change agent. Emphasis is given to the ability to plan, initiate, and implement changes with the potential to improve the functioning of organizations and their members. Prerequisite: 331. Three credits.

MGT 431 Advanced Human Resources Management. The consideration of human resource management from an applications/skills perspective. Includes discussion and analysis of contemporary issues and practices. Students convert concepts into practice through the use of integrative strategic cases and/or professional projects and exercises. Prerequisites: 333. Three credits.

MGT 432 Grievance Administration, Arbitration, and Collective Bargaining. Problems and issues in the negotiation of collective bargaining agreements in the public and private sectors. Grievance procedures and arbitration under a union contract. The resolution of disputes over wages, seniority, work assignments, and other common employment relations will be covered. Prerequisite: 334. Three credits.

MGT 433 International Human Resource Management. Focus on the effects of globalization on human resource activities and facilitates development of a set of skills essential for a successful career as a global manager. Prerequisite: 333. Three credits.

MGT 436 Small-Business Management. Application of management principles to the everyday operating problems of small, evolving businesses. Designed for persons considering entrepreneurial careers and those already operating small businesses. Three credits.

MGT 437 Family Business. Develops the intricate connections between management, ownership, and family dynamics that characterize family business. Its intention is to do this primarily by bringing together established members of the local family owned business community and students with family business backgrounds or interests. Prerequisite: Family business background or permission of the instructor. Three credits.

MGT 438 Business Ethics. An inquiry into the relevance of the classical ethical literature to the resolution of everyday business problems. Particular emphasis will be placed on the practical usefulness of the Socratic tradition. That tradition requires that we attend to clarifying our own values as well as those of others. We will read a number of Socratic Dialogues, respond to a variety of business cases, and attend to the relationship between them and the process of understanding ourselves. Part of the Ethics theme. Prerequisite: 331 or permission of the instructor. Three credits.

MGT 451 Introduction to Electronic Commerce. An examination of the opportunities that Internet related technologies have to offer for conducting electronic commerce. Includes coverage of a variety of tools, analysis of available business opportunities, and an analysis of critical management issues. Prerequisite: CS 160, MGT 268, and CS 353. CS 353 can be taken concurrently. Offered fall semester. Three credits.

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MGT 452 E-Commerce Applications Development. The design of interactive data-driven Web-based applications. Topics to be covered include data management, user-interface design, application functionality, and security controls. Prerequisite: MGT 451 and CS 353. CS 353 can be taken concurrently. Offered winter semester. Three credits.

MGT 466 International Management and Multinational Corporations. A study of the managerial challenges of conducting business in a global economy. Emphasis on cultural differences and their impact on the situations and issues managers confront when working internationally. Requires senior status or approval of instructor. Part of the Global Change theme. Three credits.

MGT 467 Advanced Topics in Operations Management. This course provides a framework for effectively managing processes and employees in manufacturing organizations. Emphasis is given to the processes involved in initiating and implementing changes in management policies, products, and technologies. Course format includes a mixture of lectures, readings, case analysis, and real-world exercises. Prerequisites: 366. Offered once yearly. Three credits.

MGT 471 Enterprise Systems Configuration. Students will learn about business processes in modern organizations, managing change to those processes, and configuring an Enterprise Resource Planning system to implement business process changes. Project organizational skills will be enhanced as students work on cross-functional teams to implement changes. Prerequisite: CS 160, MGT 268, and CS 353. CS 353 can be taken concurrently. Offered winter semester. Three credits.

MGT 472 ERP Technical Administration. This course will explore the theory underlying the administration of complex multi-layered system architectures. Students will learn to use the tools associated with off-the-shelf Enterprise Resource Planning software like SAP's Basis to monitor system well-being, maintain optimal performance, and manage security. Issues pertaining to initial system installation will be explored as well. Prerequisite: CS 160, MGT 268, and CS 353. CS 353 can be taken concurrently. Offered fall semester. Three credits.

MGT 475 Customized ERP Solutions. Students will learn how to customize Enterprise Resource Planning software using programming languages like ABAP, SAP's proprietary language. Students will learn generalized programming concepts as well as the specifics of programming with ABAP. Students will explore the difficulties associated with making changes to "off-the-shelf" software. Prerequisites: MGT 471 or 472. Offered winter semester. Three credits.

MGT 479 Deployment and Management. A capstone course that integrates through case studies this application of concepts, theories, and skills associated with OIS as they contribute to the solution of business problems and the development of solutions for business problems. Development of OIS strategies is emphasized. Prerequisites: 371 and 372. Offered once yearly. Three credits.

MGT 480 Corporate Projects. Provides students, regardless of major, with opportunities to work under faculty supervision as part of a student team on actual projects for organizations and corporations and to learn and practice technical and communication skills and ethical considerations. Three credits.

MGT 490 Management Internship. This course will be used to grant management credit to students who complete internships in the management field. Prerequisites: Junior standing; minimum 2.5 GPA. One to six credits. Offered on a credit/no credit basis.

MGT 495 Administrative Policy. The study of functions and responsibilities of general management in terms of analyzing problems that affect the performance, character, and success of the total business enterprise. Emphasis on corporate strategy and its implementation. International aspects of corporate strategy are included. Prerequisites: Senior standing and all core classes. Offered every semester. Three credits.

MGT 499 Independent Research. Independent research in the student's area of interest, supervised by a member of the Seidman faculty and culminating in a written and oral report. Written permission of instructor required. Offered each semester. One to three credits.

Marketing

MKT 350 Marketing Management. An introduction to marketing. Provides a general understanding and appreciation of the forces operating, institutions employed, and methods followed in marketing products and services both domestically and internationally. Offered every semester. Three credits.

Business

MKT 351 Consumer Behavior. An overall view of some of the basic perspectives of consumer motivation and behavior. Prerequisite: 350. Offered fall semester. Three credits.

MKT 352 Marketing Research. Detailed examination of business research procedures and applications. Problem definition, research design, data collection, sampling techniques, costs, etc. Case problems and projects. Prerequisites: 350 and Statistics 215. Offered fall and winter semesters. Three credits.

MKT 353 Marketing Negotiations. This course develops an understanding and appreciation of the negotiation process. Definitions, concepts, strategies, and practical tactics encompassed in marketing negotiation are examined in circumstances involving pricing, products, distribution, promotion, and packaging. The course includes face-to-face negotiation projects. Offered fall semester. Three credits.

MKT 354 Marketing Institutions. An integrated study of all functional aspects of marketing institutions involved in channels of distribution and logistics. Topics include retailing, wholesaling, channel management, and transportation. Prerequisite: 350. Offered every other winter semester. Three credits.

MKT 356 Professional Selling. The principles of professional salesmanship and their practical application in the marketing mix. Actual sales presentations by students are included. Prerequisite: 350. Offered fall and winter semesters. Three credits.

MKT 357 Retailing. Introduction to retailing with emphasis on profit elements, pricing and merchandising policies, inventory, and merchandise control. Prerequisite: 350. Offered fall and winter semesters. Three credits.

MKT 358 Advertising and Marketing Communications. A managerial analysis and examination of the nonpersonal demand generating element of the firm's marketing efforts. Includes study of communication theory; advertising; market, audience, and target segmentation and selection; media analysis; public relations; publicity; and most other nonpersonal communications activities. These elements are strongly related to personal selling in the private sector firm. Prerequisite: 350. Offered fall and winter semesters. Three credits.

MKT 359 Multinational Marketing. Emphasizes global marketing decision making from the manager's point of view. Examines how successful international companies, both large and small, decide which goods and services to market in specific parts of the world. Evaluates the strategies and tactics necessary for multinational marketing success. Offered fall semester. Three credits.

MKT 360 Information Technology in Marketing. Strategic use of the Internet for marketing goods and services across a range of product categories and how the Internet can be used to increase effectiveness, efficiency, and competitiveness. Specific areas of focus include market and marketing research, competitive monitoring, customer service, new product testing, and internal and external communications. Prerequisites: 350. Three credits. Offered every semester.

MKT 380 Selected Topics in Marketing. Analysis and discussion of advanced topics, contemporary problems, and new or controversial topics. Specific topics will reflect interest of students and instructors. Prerequisite: Permission of instructor. Three credits.

MKT 451 Marketing Strategy. A methodical analysis of a significant number of marketing cases selected from actual business experience to illustrate the application of sound principles to market planning, sales forecasting, and market management. Prerequisites: 350 and senior standing. Offered fall and winter semesters. Three credits.

MKT 455 Industrial Marketing. Examines the nature of the industrial market, focusing primarily upon manufacturing. It develops the distinctive character of industrial buyers and sellers, then analyzes industrial marketing planning, pricing, channeling, promotion, customer service, and control. May use case studies. Prerequisite 350. Offered fall and winter semesters. Three credits.

MKT 456 Sales Management. Application of management functions to the selling structure and sales problems of companies. Behavioral and quantitative disciplines are used in case study analyses. Organizing sales operations, sales planning, analysis, and evaluation are covered. Prerequisites: 350 and 356 or permission of instructor. Offered winter semester. Three credits.

MKT 457 Physical Distribution/Logistics Management. Approaches the management of business logistics from an integrated systems approach. Attention is focused on marketing's

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managerial role in strategic management of distribution assets, customer service, finished product inventory-control, forecasting, and multinational distribution planning. Prerequisite: 350. Offered every other winter semester. Three credits.

MKT 490 Marketing Internship. This course will be used to grant marketing credit to students who complete internships in the marketing field. Prerequisites: Junior standing; minimum 2.5 GPA. One to six credits. Offered on a credit/no credit basis.

MKT 499 Independent Research. Independent research in the student's area of interest, supervised by a member of the Seidman faculty and culminating in a written and oral report. Written permission of instructor required. Offered each semester. One to three credits.

Graduate Courses

Accounting

ACC 511 Financial and Managerial Accounting Concepts. An introduction to financial and managerial accounting. Financial accounting includes an examination of accounting concepts and understanding and interpreting financial statements. Managerial accounting includes examining the use of accounting information for planning, control, and decision-making in today's fast-changing business environment. No prior knowledge of accounting is required or assumed. Offered fall and winter semesters. Three credits.

ACC 611 Managerial Accounting. Examines the use of information for cost management, decision-making, and performance evaluation and measurement. Topics include activity-based management, cost of unused resources, relevant costs for decision-making, productivity measurement, transfer pricing, theory of constraints, and non-financial performance measures emphasizing total quality management and just-in-time. Prerequisite: ACC 511 or equivalent; BUS 601 (may be taken concurrently). Offered fall and winter semesters. Three credits.

ACC 613 Financial Statement Analysis. Topics include the supply and demand for financial statement information. Emphasis is placed on the impact of accounting choice on financial statements, fundamental ratios, and decisions. Prerequisite: 511 or equivalent. Three credits.

ACC 614 Auditing. The nature of audit evidence, basic audit techniques and concepts, audit practices and procedures, professional ethics, statistical sampling, auditing through and around a computer, and audit reports. Prerequisites: 310 and 311. Three credits.

ACC 615 Federal Income Taxation: Concepts and Business Application. Provides a general understanding of the multiple economic, political, and social ramifications of tax law and practice. Includes fundamental Federal income tax concepts, multi-state taxation concepts, and international taxation concepts applied to business. Three credits.

ACC 616 Accounting Systems. Students will learn to design, document, and use accounting systems. Emphasis on how accounting systems can be designed and used as a foundation for enterprise wide information systems. Students will apply course concepts using appropriate microcomputer software. Course fulfills Michigan C.P.A. exam requirement to take Accounting Information Systems. Prerequisite: ACC 511 or equivalent. Three credits.

ACC 617 International Accounting. Study of the various difficulties and accounting procedures for the multinational company. Includes currency translation problems, evaluation of assets of foreign countries, and the general consolidation problems of foreign subsidiaries' financial statements with the parent's accounting report. Prerequisite: 611. Three credits.

ACC 619 Industrial Accounting Practices. Study of managerial accounting as an information subsystem to the organization. Emphasis on the interactions of the components of the enterprise in response to current industry needs and practices. Prerequisite: 511 or equivalent. Three credits.

ACC 699 Independent Study. One to three credits.

Business

BUS 531 Legal Environment of Business. Explorations of the legal, regulatory, and ethical environment of business, with emphasis on the regulation of business and the political and social factors influencing case and statutory law. Topics covered include contracts, employment law, international law, environmental law, and business organizations. Offered fall and winter semesters. Two credits.

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BUS 601 Business Plan. An initial comprehensive overview of the nature of business decision-making from the standpoint of the entrepreneur starting a business. Course requires the preparation of a business plan, including pro forma financial statements. Feedback on decision-making will be provided from a computer business simulation. Prerequisites: All 500-level background courses or equivalents. Offered every semester. Three credits.

BUS 631 Leadership and Organizational Dynamics. Leadership gives insight into organizational life from the perspective of the practicing manager in terms of individual, group and inter-group behavior. Course is designed to benefit persons in a variety of organizations. The goal of the course is to explore ways to achieve managerial success by becoming effective at utilizing individuals and groups as organizational resources. Special emphasis is given to assessment of personal strengths and weaknesses when dealing with situations of managerial responsibility. Prerequisite: 601 (may be taken concurrently). Offered every semester. Three credits.

BUS 644 International Business. A study of the international business environment within which many firms now operate. Consideration given to why firms trade internationally and/or establish a foreign base of operation. Other topics include the problems an international firm faces, such as foreign currency fluctuations and conflict with host countries. Prerequisites: ACC 511 and ECO 542. Three credits.

BUS 656 Management of Technology. Teaches technological forecasting, auditing, and strategic planning methodologies. These tools aid managers in developing and maintaining their organizational competitive competencies. Prerequisite: Approval of M.B.A. Program Director. Three credits.

BUS 660 Executive-in-Residence Topics. Taught by prominent area executives, course includes class discussion and examination of relevant business issues, principles, and methods. Variable content depending on instructor. Five-week module. Permit only. One credit. Course may be repeated up to three credits when content varies. Concurrent enrollment allowed.

BUS 666 Statistical Decision Processes. A study of concepts used in decision-making under uncertainty. Uses subjective probability. Bayesian statistics and statistical decision theory, with emphasis on applications to areas involving managerial decision-making under conditions of risk, uncertainty, and incomplete information. Prerequisite: FIN 521. Three credits.

BUS 671 Global Competitiveness. Explores how firms become global and how they sustain their global position. For many firms, selling in home markets no longer guarantees success. Internationalization forces affect firms' ability to establish and conduct business in foreign markets. Covers knowledge and skills needed to manage firms operating in foreign business environments, and to work effectively with people of other cultures. Prerequisite: 601 (may be taken concurrently). Offered fall and winter semesters. Three credits.

BUS 681 Strategy. Focuses on the job of the general manager in formulating and implementing short- and long-run business strategy. An integrative course that draws on knowledge and skills acquired in other courses. Prerequisite: Completion of all other core courses and at least three directed electives. Offered fall and winter semesters. Three credits.

BUS 698 Washington Program. Special intensive study in Washington, D.C., for one week during the summer. Principal topics are Policy Development in the Executive Branch, Government Regulation, Congress—Interest Groups—Lobbying, and Domestic and International Economic Policy Issues. Open to graduate students. Special application forms available in the M.B.A. Office. Credit/no credit.

BUS 699 Independent Study. One to three credits.

Economics

ECO 542 Economic Reasoning. An examination of economic concepts, principles, definitions, and relationships. Designed to provide analytical micro and macroeconomic techniques and concepts necessary to reason from an economic point of view. Prerequisite: MTH 110. Offered fall and winter semesters. Three credits.

ECO 613 Business and Economic Forecasting. Econometric applications of data collection, analysis, and forecasting to economic and business problems. Topics include time-series analysis, multiple regression, economic modeling, and research applications. Prerequisites: 542, FIN 521, or equivalents. Three credits.

Business

ECO 641 Business Economics and Strategy. Develops an analytical framework to identify and evaluate cost-cutting or revenue-enhancing strategies. Topics include economics of production costs and consumer demand, projections using supply/demand analysis, competitive labor markets and employee compensation strategies, cost-benefit analysis of investment projects, decision-making under uncertainty, product pricing strategies, make-or-buy decisions, economics of business organization. Prerequisites: ECO 542 and BUS 601, or equivalents. Offered fall and winter. Three credits.

ECO 642 Corporate Strategy for Business Cycles. Focuses on techniques to deal with seasonal and cyclical economic fluctuations. Topics include using economic indicators to forecast the onset and duration of business cycles, impact on business of government stabilization efforts, estimating the firm's vulnerability to economic fluctuations, and the opportunities to reduce the risk inherent in business cycles. Prerequisites: ECO 542 and BUS 601, or equivalents. Three credits.

ECO 645 International Economic Issues. Selection of contemporary topics, including: effects of trade arrangements such as NAFTA and the European Union on business; opportunities for multinational enterprises in emerging markets; impacts on domestic industry of government trade policy; and the effects of interest and exchange rate fluctuations on trade strategy and capital flows. Prerequisite: Admitted SSB or permit. Three credits.

ECO 646 Employment, Wages, and Productivity. Examines labor market and personnel issues. Topics include training and employee productivity, employee compensation and incentives, effects of international trade on labor markets, information issues in labor markets as they relate to turnover and hiring practices; business cycle effects on labor markets; and the role of labor unions. Prerequisites: ECO 542 and BUS 601, or equivalents. Three credits.

ECO 680 Selected Topics in Economics. Analysis of contemporary and controversial issues in a specific area of economics. Although the course content is applications-oriented, it varies depending on students and faculty interests. Consult the current schedule of classes for details. Prerequisite: Approval of instructor. One to three credits.

Finance

FIN 521 Data Analysis in Business. The application of quantitative tools to problems encountered by business with emphasis on business case studies; basics of data presentation and descriptive methods; computer-based empirical modeling; methods of sampling in business; and discussion of commonly encountered problems in the interpretation of financial and other business data. Offered fall and winter semesters. Two credits.

FIN 522 Finance Principles for Managers. A development of the foundation tools of business finance for M.B.A. students. Topical coverage includes: basics of financial analysis and cash flow analysis; time value of money; stock and bond evaluation; introduction to risk and return; and basics of capital budgeting. A financial calculator may be required. Prerequisites: ACC 511 and FIN 521, or equivalents. Offered fall and winter semesters. Two credits.

FIN 621 Financial Policy for Managers. Course presumes a thorough understanding of the principles of managerial finance. Emphasis on problem-solving, decision-making and actions leading to optimizing the value of business firms. Methods of incorporating risk analysis into decisions concerning management of working capital, capital budgeting, and capital structure. Analysis of alternative theories and procedures regarding financial goals, portfolio concepts, cost of capital and dividend policy. Selected aspects of international finance are discussed. Prerequisite: BUS 601. Offered each semester. Three credits.

FIN 624 Investments. Covers the full risk/return spectrum of investment alternatives and the operations and regulations of markets. Presents the various technical methods of obtaining market profits. Prerequisite: 621.

FIN 626 Advanced Managerial Finance. Application of principles of finance to solving selected business case problems and analyzing current financial events. Prerequisite: 621. Three credits.

FIN 628 Security Analysis and Portfolio Management. A sophisticated analysis of investment securities from the viewpoint of establishing meaningful evaluation techniques. Develops practical strategies for constructing efficient portfolios by the study of risk analysis, random walk, and other theoretical concepts. Prerequisite: 624. Three credits.

FIN 629 International Finance. Consideration of the problems of a world monetary order, including fixed versus floating exchange rates, the role of gold, key currencies, SDRs, balance

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of payments, etc. Subjects cover the current monetary system and its evolution, including international monetary agencies and the pivotal role of the U.S. dollar. Investigation of the sources of financing for trade and foreign direct investment such as national capital markets, government programs, foreign capital markets, Eurocurrencies and Eurobonds. Prerequisite: 621. Three credits.

FIN 680 Selected Topics in Finance. Course content varies. Refer to schedule of classes to determine description and prerequisites. Students may repeat this course under different topics. Three credits.

FIN 699 Independent Study. One to three credits.

Management

MGT 561 Production and Operations Management. Develops a knowledge of the technical and quantitative aspects of operations management and competitive positioning. Emphasis is placed on applying management science and operations management tools to solving business problems in a dynamic business environment. Offered fall and winter semesters. Three credits.

MGT 632 Contemporary Communications for Managers. Provides a theoretical model for interpersonal communication and applies the model in a variety of written and oral, verbal, and nonverbal exercises. Three credits.

MGT 633 Management of Human Resources. Topics include employee evaluation and development, resistance to change, discipline, affirmative action, safety and health, rewards and compensation. A major course goal is the development of an administrative point of view for the purpose of achieving organizational objectives through the efforts of others. Prerequisite: BUS 631 or equivalent. Three credits.

MGT 635 Planned Change and Organizational Development. Addresses issues of individual, group, and organizational change from a strategic, problem-solving perspective. Strategies for changing organizational culture, enhancing creativity, building teams, and dealing with dysfunctional aspects of planned change are presented. Prerequisite: BUS 631. Three credits.

MGT 637 Problems in Labor-Management Relations. Intensive analytical probe into areas of problems between unions and management, public and private sector. Problems include discipline and discharge, wages, discrimination, contract interpretation, safety, working conditions, arbitration, and mediation. Prerequisite: BUS 631. Three credits.

MGT 638 International Human Resource Management. Focuses on the issues and dimensions of human resource management practices that confront firms operating in a global environment. Topics include recruitment and selection of international employees, dimensions of international training and development, issues in international performance appraisal, and international compensation and labor issues. Prerequisite: BUS 631. Three credits.

MGT 661 Operations Management. An examination of complex problems encountered in managing production operations. Use of advanced techniques and systems in the planning, decision-making, controlling, and revising of production plans in real-world manufacturing and service environments. Prerequisite: 561. Offered fall and winter semesters. Three credits.

MGT 663 Management Science and Management Analysis. Concepts and techniques as they relate to the transformation of data and economic interpretation of information for purposes of assisting management in its decision-making role. Prerequisites: ECO 542 and FIN 521. Three credits.

MGT 664 Total Quality Management. A marked shift has occurred in the philosophy of managing quality in the nineties. The "strategic" dimension has gained precedence over the "technical" dimension. This practical course walks students through strategic and technical tools and techniques of quality management that underscore the essentials of the new philosophy. Prerequisites: 661 or 366. Three credits.

MGT 665 International Operations Management. In-depth analysis of selected current topics and problems in international operations management. Topics covered include the organization of global operations, cultural and national comparisons, planning global operations, facilities location, sourcing, logistics, technology, transfer, quality, and inventory management. Prerequisite: 661. Three credits.

MGT 666 Operations Strategy. Development and implementation of operations strategy and the integration of this strategy with the corporate, business, and other functional strategies

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of both manufacturing and service organizations. Topics include decisions involving plant location and capacity, systems design, productivity management, and implementation of specific operations strategy such as quality, price, flexibility, technology, time, and product differentiation. Prerequisite: BUS 601. Three credits.

MGT 667 Service Management. Provides an examination of operating activities in service industries. Emphasis on the principles of design, operation, and control of service delivery systems. Lectures, cases, and assignments focus on such topics as service system design, client interfaces, capacity planning, inventory management, customer service, and quality control. Prerequisite: BUS 601. Three credits.

MGT 668 Tools of E-Commerce. An introduction to fundamental tools of electronic commerce. Students will be exposed to tools typically used in creating high-impact applications. Topics include HTML, DHTML, JavaScript, Java applets, multimedia, and simple Web-based programming. The emphasis will be on increasing awareness and understanding of these tools in successful e-commerce activities. Prerequisite: When taken as part of the E-commerce Certificate Program, this course will co-requisite with MKT 652, MKT 654, and MKT 661. Three credits.

MGT 672 Creativity and Entrepreneurship. Examination of personal barriers to creativity and entrepreneurship, and of characteristics and the roles of entrepreneurs in society. Each student completes a business plan to be judged for an award by professionals. Issues of franchising, purchase of a firm, and corporate entrepreneurship are considered. Prerequisites: FIN 522 and MKT 551. Offered fall semester. Three credits.

MGT 673 Small Business Management. This course is about the reality of operation of a small enterprise. Students will meet owners in class and join them at work. Broader issues of ethical pressures, family transitions, and building the organization's culture will also be considered. Course is not a basic introduction to operational aspects but builds on that knowledge. Prerequisites: FIN 522 and MKT 551. Offered winter semester. Three credits.

MGT 677 Professional Ethical Problems and Perspectives. A study of ethical problems commonly encountered in business, the professions, and public service. Topics include moral responsibility of the manager in business and public service; economic justice; business practices such as pricing, hiring, advertising; profit-determination and gifts; relationship between organizational and personal goals and values; ethical codes and laws covering illegal or unethical behavior, social responsibility of corporations and public agencies; government corruption and conflict-of-interest problems. Three credits.

MGT 680 Selected Topics in Management. Analysis and discussion of advanced topics, contemporary problems, new or controversial topics. Specific topics will reflect interest of students and instructors. Prerequisite: Permission of instructor. Three credits.

MGT 690 Entrepreneurship Research Practicum. This is the opportunity for directly relevant individual work. Students will either (a) complete extensive development of a business plan, (b) consult in depth to several clients, or c) prepare original research on a relevant topic. All students meet regularly to discuss their work and to be resources to each other. Prerequisite: 672 or permission of instructor. Offered winter semester. Three credits.

MGT 699 Independent Study. One to three credits.

Marketing

MKT 551 Marketing Management: Principles and Institutions. An accelerated learning course covering the principles of marketing in sufficient depth to provide a background for M.B.A.-level marketing studies. Prerequisite: FIN 521 and ECO 542. Two credits.

MKT 651 Marketing Management. A consideration of marketing problems and policies in society and in the firm. Topics include marketing decision-making, consumer behavior, the legal and political environment, demand analysis, marketing strategy, product line and positioning problems, promotion, distribution, pricing, marketing research, and information systems. Case studies of marketing problems, marketing research, and the application of marketing techniques to business problems in the domestic and international spheres. Prerequisites: MKT 551 and BUS 601 or equivalents. Offered fall and winter semesters. Three credits.

MKT 652 E-tailing, Retailing, and Direct Marketing. Enables students to benefit from the e-commerce explosion. Focus is on traditional retail strategy elements including place,

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product, promotion, pricing, buying, and selling on line and on ground, relationship marketing, partnerships and supply chain management, global challenges, and dynamics for implementing e-commerce strategies. Exploration of the new power of information flows. Prerequisite: When taken as part of the E-Commerce Certificate Program, this course will co-requisite with MKT 654, MKT 661 and MGT 668. Offered on demand. Three credits.

MKT 653 Analysis of Distribution Systems. In-depth examination of the fundamental structure of distribution systems in the U.S. economy. Emphasis on channels of distribution, transport, modes, reseller systems, physical distribution management, and current policy issues. Prerequisite: 651 or permission of instructor. Three credits.

MKT 654 Marketing Strategy in the New Economy. Provides insights into the process of developing strategic plans and operations to improve competitive position. Focuses on mission and goal development for tomorrow's challenges. Exposes students to Internet tools for researching environmental change in society, economies, and customer preferences. Develops strategies for handling changes in the competitive environment. Prerequisite: When taken as part of the E-Commerce Certificate Program, this course will co-requisite with MKT 652, MKT 661 and MGT 668. Offered on demand. Three credits.

MKT 655 Promotional Strategy. Provides students with an understanding of the communications process as it applies to advertising and other areas such as product symbolism, packaging, pricing, channels, and personal selling. Students are required to apply basic concepts in determining the objectives of a communications-promotion program, establishing the relative roles of personal selling and advertising, building an advertising campaign and determining the program budget. Prerequisite: 651. Three credits.

MKT 658 International Marketing. Introduces a conceptual framework that enables the student to identify and better understand the dimensions that are operative within a global marketing environment. Explores the relationship between these dimensions and specific elements of a marketing program. While the course does not dwell on exporting per se, reasonable coverage is given to factors affecting the development of exporting activities. Prerequisite: 651. Three credits.

MKT 660 Marketing Research and Analysis. An examination of marketing information needs and resources including the collection and dissemination of primary and secondary data and the cost-benefit consequences of all information gathering procedures. Problem definition, research design, sampling techniques, data collection, analysis, etc. This class undertakes real marketing research projects and thereby offers students actual "hands-on" research opportunities. Prerequisite: 651. Three credits.

MKT 661 Internet Marketing. Focus includes dimensions of the Internet (www, e-mail and usenet), users and uses, capabilities and limitations, web site design, and acquiring an understanding of the forces and trends that are shaping marketing through new technologies. Students will hone Internet research skills and design and Internet marketing strategy for an organization. Prerequisite: When taken as part of the E-Commerce Certificate Program, this course will co-requisite with MKT 652, MKT 654, and MGT 668. Offered winter semester. Three credits.

MKT 680 Current Topics in Marketing. In-depth analysis of selected current topics and problems in marketing. Content will vary from term to term among the many subareas of marketing management, physical distribution, systems analysis/design, application, model building and theory. Prerequisite: 651. Three credits.

MKT 699 Independent Study. One to three credits.

Taxation

TAX 601 Federal Taxation—General Concepts. Reviews the federal tax system with emphasis on understanding how tax laws are developed and implemented, and understanding interaction of statutory, regulatory, and case law. Topics include gross income concepts, business and personal deductions, timing principles, property transactions, bad debts, contributions, and casualty losses. Three credits.

TAX 602 Tax Research and Writing. Focuses on tools and techniques of tax research and the preparation of formal written communications common to tax practice. Emphasis on tax research methodology and skills in context of practical tax compliance and planning situations. Three credits.

TAX 603 Sales, Exchanges, and Other Property Dispositions. Examines the federal income tax issues pertaining to the sale or exchange of property. Topics include like-kind exchanges,

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involuntary conversions, the disposition of a principle residence, the disposition of business assets, installment sales, unstated interest, and sale-lease back transactions. Three credits.

TAX 604 Corporate Tax I. Detailed analysis of the income taxation of corporations and their shareholders; including corporate formation, capital structure, dividends, and other non-liquidating distributions and stock redemptions. Also covered are Subchapter S Corporations and various penalties tax issues. Three credits.

TAX 605 Corporate Tax II. Continues the discussion of the income taxation of corporations and their shareholders in Corporate Tax I. Includes: Corporate liquidations, liquidation of a subsidiary, taxable, and non-taxable acquisitive transactions including mergers and consolidations, and corporate divisions. Also judicial doctrines affiliated corporations and carryover of tax attributes. Prerequisites: 604. Three credits.

TAX 607 Estate, Gift, and Trust I. Examines the federal transfer tax system, including estate and gift tax statutes, regulations, rulings and cases. Topics include the definition of a gift, disclaimers, the annual exclusion, calculation of gross estate, revocable transfers, jointly-held property, annuities, powers of appointment, life insurance, the marital deduction, and valuation. Three credits.

TAX 608 Estate, Gift, and Tax II. Examines the federal income taxation of trusts and estates and the generation-skipping transfer tax. Topics include entity classification, determination of distributable net income, simple trusts, fiduciary accounting income, the throwback rules, income in respect of a decedent, and the grantor trust rules. Prerequisites: 607. Three credits.

TAX 609 Partnership Taxation. Covers the Federal taxation of partners and partnerships. Topics include formation and operation of a partnership including receipt of a partnership interest for services; liquidations and terminations; distributions and sales of a partnership interest; calculation of basis and special basis adjustments. Decedent partner issues and LLCs are also covered. Three credits.

TAX 610 Multistate Taxation. Conceptual issues and constitutional framework of multistate taxation are developed and explored. Current issues, including Michigan taxes, are presented. Three credits.

TAX 611 Employee Benefit Plans and Deferred Compensation. Provides an in-depth survey of employee benefit plans and executive compensation arrangements under ERISA and the Internal Revenue Code. Topics covered include medical, dental, vision, and hybrid arrangements; fiduciary responsibility in the operation and management of plans. Nonqualified deferred compensation and stock-based programs are also discussed. Three credits.

TAX 612 Tax Accounting. Covers fundamental concepts applicable to tax accounting methods and periods, and to consolidated income tax returns. Topics include income and expense recognition, the installment method, inventories, changes in accounting methods and periods, qualification and filing of consolidated tax returns, and intercompany transactions, distributions, and basis calculations. Three credits.

TAX 613 International Tax Practice. United States jurisdiction to tax on the basis of citizenship, source of income, and other minimum contacts required by international or constitutional law is treated, along with taxation of domestic corporations doing business abroad, entities that are either controlled foreign corporations or foreign personal holding companies, and the foreign tax credit. U.S. possession corporations, domestic international sales corporations, and tax treaties are also considered. Three credits.

TAX 614 Directed Study and Report. Preparation of an extensive tax research and writing assignment under the direction of the M.S.T. director or his designee. Offered all semesters and locations to person who has obtained permission of the director. One to three credits.

TAX 615. Advanced Tax Subjects. Offers an in-depth study of an advanced tax topic. Three credits.

TAX 616 Taxation Problems, Planning, and Current Issues. Integrates the specific knowledge learned in the prior M.S.T. courses with sophisticated business/individual taxation problems. Students will be expected to research and defend their solutions to various taxation controversies. Last course prior to graduation. Three credits.

TAX 619 Federal Tax Practice and Procedure. Course overviews federal tax practice and procedure under the Code and Regulations. Specific topics include tax return filing issues, interest and penalties, and assessment and collection of tax deficiencies. IRS audits, appeals, and enforcement activities are surveyed, as are the professional and practical requirements for practice before the IRS. Prerequisites: 601 or permission of M.S.T. director. Offered every other year. Three credits.

Chemistry

Chemistry (CHM)

Chair: Nikkel. Professors: Baum, Nikkel, Richmond; Associate Professors: Carlson, Matchett, McBane, Miller, Qi, Schaertel, Tanis; Assistant Professors: Bender, Burns, Henderleiter, Karpen, Leonard, Smart, Soman, Witucki.

Degrees offered: B.S., B.A., in chemistry; minor in chemistry. Teaching certification (secondary) in chemistry major and minor. Major with elementary teaching certification offered in group science, chemistry emphasis.

Accreditation: The Chemistry Department is accredited by the Committee on Professional Training of the American Chemical Society.

Students who select a chemistry major may choose one of five emphases: the professional emphasis, the technical emphasis, the education emphasis, the biochemistry and biotechnology emphasis, or the environmental emphasis. The professional emphasis offers a well-rounded education in chemistry and provides a strong background for employment at the bachelor level or entry into graduate school. Completion of the professional emphasis with additional senior-level courses leads to a degree certified by the American Chemical Society. The technical emphasis is designed for students who wish to work in industry and do not intend to enter graduate or professional school. Students interested in attending medical school or in obtaining employment in biochemical and biomedical laboratories may choose the biochemistry and biotechnology emphasis. Students interested in teaching high school chemistry may choose the education emphasis. This emphasis includes courses in chemistry teaching methods and also requires a certified minor and completion of the Secondary Education Professional program.

The goal of the environmental emphasis program is to prepare students for professional employment in a position related to environmental chemistry or for furthering their studies in an advanced degree program that may be related to environmental issues.

We recommend that students start in the professional emphasis, because it is easier to transfer to another emphasis than vice versa. For any degree program in chemistry it is important to start the proper sequence of chemistry courses as soon as possible. Students who wish to major in chemistry should see a member of the Chemistry Department to plan their program at the earliest opportunity.

Career Opportunities

Chemistry is the study of the composition and transformation of matter. As such it affects all aspects of our lives. Our food, clothing, fuel, and medicine could not be produced without the work of chemists. Chemists with bachelor's degrees find employment in all areas of manufacturing, agribusiness, energy production, and health care, and in a wide variety of industrial, governmental, and medical laboratories. Areas of employment include product development and testing, quality control, environmental monitoring, and pollution control. Outside of the laboratory, chemists are employed by chemical and pharmaceutical companies in sales, technical service, and various other phases of business. High school teaching is another option for the chemist with a bachelor's degree and appropriate certification.

A degree in chemistry is excellent preparation for further study in biochemistry, medicine, food science, oceanography, environmental science, patent law, microbiology, physiology, and engineering. Advanced degrees in chemistry qualify individuals for careers in research and higher education.

Chemistry

Master's degree programs in chemical engineering accept students with degrees in chemistry. The B.S. in chemistry, professional emphasis, with additional mathematics coursework, is recommended for admission to such programs.

Major Requirements

Completion of a major in chemistry requires the following:

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. 26 semester credit hours of CHM core courses with a minimum 2.0 GPA.

CHM 115 Principles of Chemistry I
CHM 116 Principles of Chemistry II
CHM 222 Quantitative Analysis
CHM 241 Organic Chemistry I
CHM 242 Organic Chemistry II
CHM 391 Chemistry Seminar I³
CHM 491 Chemistry Seminar II³

Specifically excluded from any major program in chemistry are CHM 102, 109, 201, and 230. CHM 391 is required only of students who take their junior year in chemistry at GVSU.

3. A minimum 2.0 GPA in required cognate courses. A grade of C or better in all chemistry courses that are listed as prerequisites of other chemistry courses in the major.

Transfer students must complete at least 12 credits in chemistry at Grand Valley.

4. Emphasis: All students must select one of the following emphases in addition to the core courses listed above.

Professional Emphasis

The professional emphasis offers excellent preparation for bachelor level employment and entry into graduate and professional schools.

CHM 344 Qualitative Organic Analysis
CHM 356 Physical Chemistry I¹
CHM 353 Physical Chemistry Laboratory I
CHM 358 Physical Chemistry II
CHM 355 Physical Chemistry Laboratory II or
CHM 455 Physical/Computational Chemistry Lab II
CHM 421 Instrumental Methods of Analysis
CHM 422 Instrumental Methods Laboratory
MTH 201 Calculus and Analytic Geometry I²
MTH 202 Calculus and Analytic Geometry II
PHY 230 Principles of Physics I²
PHY 231 Principles of Physics II²

Students who wish to be certified by the American Chemical Society must also complete CHM 471 and six additional credits of chemistry at the 400 level, including a minimum of 94 hours of laboratory work.

Technical Emphasis

The technical emphasis may be selected by those students not planning to go to graduate school in chemistry.

CHM 232 Biological Chemistry or CHM 442 Polymer Chemistry
CHM 344 Qualitative Organic Analysis
CHM 351 Introduction to Physical Chemistry¹

Chemistry

CHM 352 Applied Physical Chemistry
CHM 421 Instrumental Methods of Analysis
CHM 422 Instrumental Methods Laboratory
MTH 201 Calculus and Analytic Geometry I²
STA 215 Introductory Applied Statistics
PHY 220 General Physics I²
PHY 221 General Physics II²

And one of the following Computer Science courses:

CS 150 Introduction to Computing
CS 162 Computer Science I

Education Emphasis

The education emphasis is designed specifically for students who plan to teach chemistry at the secondary level.

CHM 220 Computer Interfaces for Chemistry Teachers
CHM 319 Chemistry in Secondary Education
CHM 344 Qualitative Organic Analysis
CHM 351 Introduction to Physical Chemistry¹
CHM 352 Applied Physical Chemistry
CHM 421 Instrumental Methods of Analysis
CHM 422 Instrumental Methods Laboratory
MTH 201 Calculus and Analytic Geometry I²
PHY 220 General Physics I²
PHY 221 General Physics II²

Students in this emphasis must also complete a certified minor and the Secondary Professional Program (School of Education). In addition, students in this emphasis must complete a biology and an earth/space science course to meet state certification standards. BIO 111 or 112 and GEO 111 are recommended. These or other courses may be taken as electives or as part of the general education program or as part of the minor.

Biochemistry and Biotechnology Emphasis

The biochemistry and biotechnology emphasis prepares students for entry level employment in biotechnical or biomedical laboratories or for entry into medical or dental schools.

CHM 351 Introduction to Physical Chemistry¹
CHM 352 Applied Physical Chemistry
CHM 461 Biochemistry I
CHM 462 Biochemistry Techniques
CHM 463 Biochemistry II
MTH 201 Calculus and Analytic Geometry I²
PHY 220 General Physics I²
PHY 221 General Physics I²
BIO 112 General Biology II
BIO 375 and 376 Genetics with laboratory

Cognate options: choose 10 additional credits from these choices:

CHM 490 Chemistry Laboratory Internship*
CHM 499 Investigation Problems*

*Variable credit courses. Up to six credits in CHM 490 and 499 may apply. Internship and research projects must be approved in advance by advisor.

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BIO 357 or HS 212/213 Microbiology with Laboratory
BIO 432 or HS 280/281 Physiology with Lab
BIO 405 Cell and Molecular Biology or
BIO 414 Molecular Biology of the Gene
BIO 406 Cell and Molecular Biology Lab
BIO 416 Advanced Genetics Lab
BIO 426 Nucleic Acid Lab
BIO 423 Plant Biotechnology
HS 312/313 Bacterial Genetics Lab or
HS 322/323 Bacterial Physiology with Lab

Students interested in graduate school should take the following:

CHM 356, 353, 358, and 355 or 455 instead of CHM 351 and 352
PHY 230 and 231 instead of PHY 220 and 221
MTH 202

Environmental Emphasis

CHM 321 Environmental Chemistry
CHM 322 Environmental Chemistry Analysis
CHM 351 Introduction to Physical Chemistry
CHM 352 Applied Physical Chemistry Laboratory
CHM elective (two to three credits) at the 300–400 level (approval required)
MTH 201 Calculus and Analytic Geometry I²
PHY 220 General Physics I²
PHY 221 General Physics II²
CS 150 Introduction to Computing
STA 215 Introductory Applied Statistics I
OSH 414 Environmental Safety and Health Regulations

The environmental emphasis also requires specialization in a discipline outside of chemistry. Students must choose one of the following tracks to complete the emphasis. Each track includes two required lower-level courses to meet the prerequisite requirements of the track and two upper-level courses from the courses listed.

1. Biology Track: BIO 112, BIO 215.
And any two of the following courses:
BIO 338, BIO 357, BIO 440.
2. Natural Resources Management Track: GEO 111, NRM 281.
And any two of the following courses:
NRM 320, 410, 451, 452, GPY 307.
3. Geology Track: GEO 111, GEO 112.
And any two of the following courses:
GEO 440, GEO 445, GPY 307.

Students interested in graduate school are encouraged to take the following:

CHM 353, 356, and 358 and 355 or 455 instead of CHM 351 and 352
PHY 230 and 231 instead of PHY 220 and 221
MTH 202

Minor Requirements

1. A minor in chemistry requires a minimum of 24 credit hours, including the following courses:

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CHM 115 Principles of Chemistry I
CHM 116 Principles of Chemistry II
CHM 221 Survey of Analytical Chemistry (suggested) or CHM 222 Quantitative Analysis

and *one* of the following sequences:

- a.) CHM 241 Organic Chemistry I and
CHM 242 Organic Chemistry II

or

- b.) CHM 231 Introductory Organic Chemistry
and *two* of the following courses:
CHM 232 Biological Chemistry
CHM 319 Chemistry in Secondary Education (education majors only)
CHM 321 Environmental Chemistry
CHM 322 Environmental Chemical Analysis
CHM 351 Introduction to Physical Chemistry

Specifically excluded from the minor in chemistry are CHM 102, 201, 220, and 230.

2. A minimum GPA of 2.0 in all chemistry courses is required. Transfer students must complete at least six credits in chemistry at Grand Valley.
3. CHM 109 may be counted toward the minor only if completed prior to CHM 115.
4. A chemistry minor for teacher certification requires CHM 319 and a minimum GPA of 2.8 in chemistry courses.

Sample Curriculum—B.S. Professional Emphasis

This option assumes students will complete the required skills and general education courses and select electives with the help of their advisor.

First Year

CHM 115 Principles of Chemistry I
MTH 201 Calculus I
CHM 116 Principles of Chemistry II
MTH 202 Calculus II

Second Year

CHM 222 Quantitative Analysis
CHM 241 Organic Chemistry I
CHM 242 Organic Chemistry II
PHY 230 Principles of Physics I
PHY 231 Principles of Physics II

Third Year

CHM 356 Physical Chemistry I
CHM 353 Physical Chemistry Lab I
CHM 391 Chemistry Seminar I³
CHM 344 Qualitative Organic Analysis
CHM 358 Physical Chemistry II
CHM 355 Physical Chemistry Lab II or
CHM 455 Physical/Computational Lab II

Fourth Year

CHM 421 Instrumental Analysis
CHM 422 Instrumental Analysis Lab
CHM 491 Chemistry Seminar II³

Group Science Major with Chemistry Emphasis For the B.S. Degree

The group science major with a chemistry emphasis is designed for students seeking certification to teach at the elementary school level. This major provides students with breadth of exposure in all the sciences with a concentration in

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chemistry. In order to be certified, students must complete this major and the elementary teaching minor.

The following requirements must be completed for the major:

1. One course chosen from BIO 103, 105, or 107, GEO 100, PHY 105 or 106.
2. PHY 201 or 204.
3. CHM 115⁴ and 116, and 219, and 231.
4. GEO 111 or 201.
5. BIO 111 and 112.
6. CHM 232 (capstone).

Courses of Instruction

Numbers in parentheses at the end of course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

CHM 102 Chemistry and Society. A survey of some of the many ways in which chemistry is involved with people's day-to-day existence. This course is not applicable for a chemistry major or minor. Fulfills Physical Sciences Foundation (3-0-0). Three credits. Offered fall and winter semesters.

CHM 109 Introductory Chemistry. An introductory study of general chemistry that presents the basic chemical principles and their applications. Designed for general education and students in programs that require a chemistry background but not the rigor of a full year of general chemistry. Does not count toward a chemistry major. Prerequisite: MTH 097 or concurrent enrollment. Fulfills Physical Sciences Foundation. (4-1-2). Five credits. Offered every semester.

CHM 115 Principles of Chemistry I. The first semester in the two-semester general chemistry sequence for the sciences. Begins with the concepts of atomic structure and builds up the principles of modern chemistry. Emphasis on connections between atomic/molecular structure and observed chemical behavior. Prerequisites: High school chemistry or CHM 109, and MTH 110. Fulfills Physical Sciences Foundation. (4-1-2). Five credits. Offered every semester.

CHM 116 Principles of Chemistry II. The second semester in the two-semester general chemistry sequence for science majors. Builds on the theoretical foundation of CHM 115 to develop the concepts of equilibria, solubility, acids and bases, kinetics, and thermodynamics. Prerequisite: 115. (4-1-2). Five credits. Offered every semester.

CHM 180 Special Topics in Chemistry. Special topics for the first year in college chemistry. Prerequisite: Permission of CHM department. One to three credits. Offered upon sufficient demand.

CHM 201 Introduction to Chemical Sciences. Introduction to chemical sciences emphasizing the descriptive approach. Lectures, demonstrations, discussions, experiments, and assignments illustrate the chemical concepts as appropriate for K-8 teaching. K-8 science classroom visits will be arranged for students who plan to teach. Other students will write a term paper as part of course requirement. Fulfills Physical Sciences Foundation. (3-0-2). Four credits. Offered winter semester.

CHM 219 Chemistry in Elementary Education. Preparation and presentation of lecture demonstrations and experiments for use in teaching chemistry at the elementary level. Prerequisites: General Chemistry (109 or 116 or 201) and ED 200; Group Science Major. Two credits. Offered fall and winter semesters.

¹capstone course.

²Completion of MTH 201, PHY 230, and PHY 231 satisfies the B.S. degree cognate for professional chemistry majors. Completion of MTH 201, PHY 220, and PHY 221 satisfies the B.S. degree cognate for all other chemistry majors.

³Required of all chemistry majors. Two semesters of seminar are required for one credit. Students should register for zero credit in the fall semester and one credit in the winter semester.

⁴CHM 115 and MTH 221 and MTH 222 satisfy the B.S. cognate requirement for the Group Science major.

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CHM 220 Technology for Chemistry Teachers. A laboratory course in which a variety of computer interface devices will be used. These can be used to quantify results of experiments in the high school chemistry laboratory.

CHM 221 Survey of Analytical Chemistry. Survey course on classic wet chemical and instrumental methods of analysis with a focus on practical laboratory skills. Topics include gravimetric, titrimetric, and potentiometric techniques. Basic issues concerning UV-Vis and atomic absorption spectroscopy and gas and liquid chromatography are also covered. Prerequisite: 116 or one full year of General Chemistry. (3-0-4). Four credits. Offered fall and winter semesters.

CHM 222 Quantitative Analysis. Volumetric and gravimetric methods of analysis; introduction to spectrophotometric and electrometric methods of analysis. Prerequisite: 116 or one full year of general chemistry. (2-1-6). Four credits. Offered fall and winter semesters.

CHM 230 Introduction to Organic and Biochemistry. A survey of organic and biochemistry. Topics include the biologically significant classes of organic compounds and their reactions, classes of biological compounds, the major metabolic pathways, the biochemistry of nucleic acids, and protein synthesis. Does not apply to a chemistry major or minor. Prerequisite: 109 or equivalent. (4-1-0). Five credits. Offered fall and winter semesters.

CHM 231 Introductory Organic Chemistry. An introduction to organic chemistry. Topics include the classes of organic compounds, reactions, synthesis, and mechanisms. Includes laboratory. Prerequisite: 109 or 116. (3-1-2). Four credits. Offered every semester.

CHM 232 Biological Chemistry. An introductory course in biochemistry. Topics include carbohydrates, proteins, lipids, nucleic acids, enzymes, metabolism, and protein synthesis. Includes laboratory. Prerequisite: 231. (3-1-2). Four credits. Offered every semester.

CHM 241 Organic Chemistry I. This course, together with Chemistry 242, is intended for chemistry majors and others who require a full year of organic chemistry. Topics include structure, reactions, stereochemistry, and the spectroscopic analysis of organic compounds. Laboratory instruction includes the use of gas chromatography, infrared, and nuclear magnetic resonance spectroscopy. Prerequisite: 116. (4-1-3). Five credits. Offered fall and winter semesters.

CHM 242 Organic Chemistry II. A continuation of 241, including an introduction to fats, carbohydrates, and amino acids. Prerequisite: 241. (4-1-3). Five credits. Offered fall and winter semesters.

CHM 280 Special Topics in Chemistry. Special topics for the second year in college chemistry. Prerequisite: Permission of CHM department. One to three credits. Offered upon sufficient demand.

CHM 310 Industrial Chemistry. An introduction to the principles of chemistry and chemical engineering used in industrial processes. Examines common chemical unit processes and the production methods for organic and inorganic chemicals. Pollution control equipment is also discussed as an integral part of chemical production. Prerequisites: 242 and MTH 125 or MTH 201. (2-0-0). Two credits. Offered winter semester in odd-numbered years.

CHM 319 Chemistry in Secondary Education. Course is intended to expand the perspectives on the teaching of specific topics in an introductory chemistry course. Emphasis on lecture demonstrations, laboratory experiments, and computer programs. Prerequisites: Chemistry major or minor, teacher certification candidate, and 18 credits in chemistry. Two credits. Offered fall semester.

CHM 320 Applied Analytical Chemistry. Application of classical and instrumental chemical analytical methods to individual problems in chemistry or other natural sciences. Prerequisite: 222 and permission of department chairman and project sponsor before registration. Two credits. Offered on demand.

CHM 321 Environmental Chemistry. A study of the chemistry of our environment and the chemistry underlying our environmental problems. The sources, transport, reactions, and fates of chemical species in the water, air, and soil will be discussed, and the health effects associated with these pollutants on humans, animals, and the environment will be addressed. Prerequisite: 231 or 242 or permission of instructor. (3-0-0). Three credits. Offered winter semester.

CHM 322 Environmental Chemical Analysis. Provides the basic concepts of pollution and hands-on experience with the techniques for instrumental analysis of environmental samples. Sample acquisition, preparation, and analysis will be discussed and practiced. Under-

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standing quality control and quality assurance procedures will also be covered. Prerequisites: 221 or 222, and 231 or 242, or permission of instructor. (2-0-3). Three credits. Offered fall semester.

CHM 344 Qualitative Organic Analysis. Identification of organic compounds using chemical and instrumental methods. Prerequisite: 242. (1-1-4). Three credits. Offered fall and winter semesters.

CHM 351 Introduction to Physical Chemistry. Physical chemical concepts for students of biology, health sciences, geology, chemistry (technical, education, biochemistry, and environmental emphases), and related fields. Credit cannot be given for 351 as well as 356 and 358. Does not satisfy the requirements of the professional emphasis in chemistry. Prerequisite: 116, MTH 201, credit or registration in PHY 220. (3-0-0). Offered fall semester.

CHM 352 Applied Physical Chemistry. Laboratory experiments in physical chemistry for students with credit in CHM 351 (Introduction to Physical Chemistry). Topics will include thermodynamics, equilibrium, spectroscopy, and kinetics. Prerequisites: 116, MTH 201, credit or registration in PHY 220, credit or registration in CHM 351. (0-0-3). One credit. Offered winter semester.

CHM 353 Physical/Computational Chemistry Lab I. Laboratory experiments in physical chemistry and computational chemistry. Topics include quantum mechanics, spectroscopy, and chemical kinetics. Prerequisites: 222 and credit or registration in 356. (0-0-4). Two credits. Offered fall semester.

CHM 355 Physical Chemistry Laboratory II. Laboratory experiments in physical chemistry. Topics include thermodynamics and chemical kinetics. Prerequisites: 222, 353, credit or registration in CHM 358. (0-0-2*). One credit. Offered winter semester.

CHM 356 Physical Chemistry I. Introduction to the mathematical-physical interpretation of chemical theory. Topics include kinetic-molecular theory of gases, thermodynamics, spectroscopy, and chemical kinetics. Prerequisites: 116, MTH 202, and credit or registration in PHY 230. (4-0-0). Four credits. Offered fall semester.

CHM 358 Physical Chemistry II. Study of the mathematical-physical interpretation of chemical theory. Topics include kinetic-molecular theory of gases, thermodynamics, and statistical mechanics. Prerequisite: 356 and credit or registration in PHY 231. (3-0-0). Three credits. Offered winter semester.

CHM 380 Special Topics in Chemistry. Special topics for the third year in college chemistry. Prerequisite: Permission of CHM department. One to three credits. Offered upon sufficient demand.

CHM 391 Chemistry Seminar I. Invited speaker and student presentation of topics from current chemical literature. Participation in two semesters of seminar is required for one credit. Open only to junior chemistry majors and minors. Required for majors in the junior year. (0-1-0). One credit. Offered fall and winter semesters.

CHM 399 Readings in Chemistry. Independent supervised reading in selected topics or supervised independent laboratory work in chemistry. The topics, hours, and amount of credit must be arranged with a faculty member and approved by the department chairman before registration. One or two credits. May be taken for a maximum of four credits. Offered on demand.

CHM 421 Instrumental Methods of Analysis. Theory and application of modern instrumental methods of analysis with emphasis on spectrometric and separation techniques. Prerequisites: 222 and 351 or 356. (3-0-0). Three credits. Offered winter semester.

CHM 422 Instrumental Methods Laboratory. Practical application of instruments in analysis. Prerequisites: Credit or registration in 421. (0-1-3). Two credits. Offered winter semester.

CHM 441 Advanced Organic Chemistry. An advanced treatment of organic structure, reactions, and mechanisms and physical organic chemistry. Prerequisites: 242 and credit or registration in 351 or 356. (3-0-0). Three credits. Offered winter semester of odd-numbered years.

CHM 442 Polymer Chemistry. Covers the physical and chemical properties of polymers, the preparations and reactions of polymers, and the industrial uses of polymers. Prerequisite:

*Students will meet for labs every other week for four-hour laboratory sessions.

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242 and credit or registration in 351 or 356. (3-0-0). Three credits. Offered winter semester of even-numbered years.

CHM 452 Advanced Synthetic Techniques. An advanced laboratory course designed to incorporate modern synthetic techniques of both organic and inorganic chemistry. Experiments will focus on demonstrating the overlap of these two synthetic fields. Prerequisites: Credit or registration in 471, 441 recommended. (0-1-5). Two credits. Offered winter semester of odd-numbered years.

CHM 455 Physical/Computational Chemistry Lab II. Laboratory experiments in physical chemistry and computational chemistry. Topics include thermodynamics, molecular dynamics, statistical mechanics, and chemical kinetics. Prerequisites: 222, 353, credit or registration in 358. (0-0-4). Two credits. Offered winter semester.

CHM 461 Biochemistry I. Structure and function of biological compounds, bioenergetics, intermediary metabolism, and protein synthesis. Prerequisite: 242. (4-0-0). Four credits. Offered fall and winter semester.

CHM 462 Techniques in Biochemistry. Laboratory experiments and lectures covering techniques used in modern biochemical research. Prerequisite: 461 or permission of instructor. (1-0-6). Three credits. Offered winter semester.

CHM 463 Biochemistry II. A continuation of CHM 461. An in-depth coverage of the biochemistry of membranes, chemistry of DNA, photosynthesis, enzyme kinetics and mechanisms, and coenzymes. Prerequisites: BIO 112 and CHM 461 or permission of instructor. Three credits. (3-0-0). Offered winter semester.

CHM 471 Advanced Inorganic Chemistry. Structure and bonding as related to chemical and physical properties of inorganic compounds. Prerequisite: Credit or registration in 351 or 356. (3-0-0). Three credits. Offered fall semester.

CHM 473 Organometallic Chemistry. Focuses on the unique chemistry that results when organic molecules are covalently bonded to metals. Emphasis on the organometallic chemistry of the transition metals. Topics include bonding, preparation and reaction of the major classes of organometallic molecules, reaction mechanisms, use of synthons, and catalysis. Prerequisite: 242. (3-0-0*). Three credits. Offered winter semester of even-numbered years.

CHM 480 Special Topics in Chemistry. Special topics for the fourth year in college chemistry. Prerequisite: Permission of CHM department. One to three credits. Offered upon sufficient demand.

CHM 490 Chemistry Laboratory Internship. Practical on-the-job training and independent study in specialized areas of chemistry. Prerequisite: Chemistry major with a minimum of 20 hours in chemistry and permission of instructor. One or two credits per semester. Can be taken for a maximum of four credits. Offered on demand.

CHM 491 Chemistry Seminar II. Invited speaker and student presentation of topics from current chemical literature. Participation in two semesters of seminar is required for one credit. Open only to chemistry majors and required of them in the senior year. (0-1-0). One credit. Offered fall and winter semesters.

CHM 499 Investigation Problems. Supervised research in chemistry for junior and senior chemistry majors. One to five credits can be taken for a maximum of seven credits. Prerequisite: Permission of instructor. Offered every semester.

CHM 580 Special Topics in Chemistry. Special topics appropriate for graduate study in college chemistry. One to three credits. Offered upon sufficient demand.

CHM 582 Introductory Chemistry for Teachers. Introduction to chemical science emphasizing the descriptive approach including lectures, demonstrations, discussions, experiments, and assignments illustrating appropriate material as background for teaching middle school science. Prerequisite: Admission into Graduate Program of School of Education for Middle Level Endorsement. Four credits. Offered summers: second six weeks of odd-numbered years.

CHM 585 Workshop for Chemistry Teachers. Intended to expand the perspectives or the teaching of specific topics in an introductory chemistry course. Special emphasis on lecture demonstrations, laboratory experiments, and computer programs. Prerequisites: High school chemistry teacher and permission of instructor. Two credits. Offered summer semester.

*Eight hours individually scheduled lab project.

City and Regional Planning Minor

Chair: Poitras; Associate Professor: Poitras; Assistant Professor: Gasahl.

The professional field of planning is a dynamic and growing discipline that is concerned with improving the quality of community living by developing community plans, programs, and projects that make cities and towns more livable. Professional planners create a better living environment by planning, designing, and ultimately building better cities, towns, and urban regions. This process is undertaken with the assistance of public, private, and community organizations.

Career Opportunities

A minor in city and regional planning provides career opportunities in public, private, and nonprofit organizations, including such agencies as city planning offices, state and county transportation bureaus, United Way agencies, park and recreation organizations, neighborhood associations, Federal offices, private architecture and planning establishments, utility companies, and many other types of organizations.

Requirements for a Planning Minor

Students who minor in planning are required to complete the following courses (23 credits):

GPY 307 Introduction to Computer Mapping/Geographic Information Systems
GPY 309 Introduction to City and Regional Planning
GPY 310 Land Use Planning
GPY 407 Advanced GIS
PA 307 Local Politics and Administration
PA 439 Community Analysis
SS 324 Urbanization

Classics (CLA, GRK, LAT)

Chair: Levitan. Associate Professors: Levitan, Rayor; Assistant Professors: Flaschenriem, Morison, Pazdernik.

Classics is the study of ancient Greece and Rome, which stand among the world's most exciting, important, and influential civilizations. As an interdisciplinary field, Classics explores the history, art, literature, philosophy, and the religious traditions of Greek and Roman civilization, as well as its relationships to other civilizations and cultures throughout the world, including our own. The cultural riches of classical civilization make the study of Classics as rewarding as anything the liberal arts have to offer, but the value of Classics has another dimension as well. Insofar as Classics explores what many have understood as the foundations of Western civilization, it can provide an informed and critical perspective on those foundations, illuminating the artistic, intellectual, and social traditions that have helped to make the Western world what it has become over the course of a hundred generations of human history.

Courses and programs in Classics are designed to meet the needs of a variety of students. For students who pursue a major or minor in the field, Classics provides a broad and solid liberal arts education that will be useful in many careers and vital to the development of their full human capacity. For students in other disciplines, it offers a valuable opportunity to investigate first-hand the works and traditions

Classics

that have provided much of the intellectual background of their own chosen fields.

Greek (GRK) and Latin (LAT)

Greek and Latin are essential components of Classics. Access to the languages in which the great writers of the ancient world thought and composed provides students with a special perspective on ancient culture and also can give them a unique insight into what are still crucial works in the fields of poetry, drama, history, philosophy, law, and mathematics. Most students also find that working with the classical languages greatly improves their understanding of English and their skills as readers and writers. Greek is especially important for students of literature and philosophy and for those who are preparing for seminary or who wish to read the New Testament in its original language. Latin will be of special benefit to students of literature, history, and law, students of modern Romance languages, and those who are interested in the culture of medieval and renaissance Europe.

Both Greek 201 and Latin 201 fulfill the B.A. requirement of a third-semester proficiency in a foreign language. Greek 202 and Latin 202 fulfill the Cultural Designation: World Perspectives requirement of the General Education Program.

Career Opportunities

Students of Classics have a wide range of career opportunities before them. Many Classics students pursue careers in teaching, either at universities or at the secondary level, where recent enrollment trends have increased the demand for high school Latin teachers in particular. Others choose careers in publishing, archeology, or museum work. Still others who seek the rigorous and general liberal arts degree that Classics provides will move into fields such as law, medicine, business, technology, communications, and the ministry, in which an undergraduate major in Classics has been recognized as particularly attractive. In general, almost every field that values a broad education and habits of precise thought will welcome the student of Classics.

Study Abroad

Students interested in Classics are encouraged to seek study-abroad experience in a program emphasizing the civilization of the classical world, such as those offered by the Intercollegiate Center for Classical Studies in Rome and the College Year in Athens. Summer internships at archeological excavations of classical sites are also available.

For more information about opportunities to study Classics abroad, students should contact the Padnos International Center.

Requirements for Major and Minor Programs

The Department of Classics offers major and minor programs in three areas: Greek, Latin, and the Classical Tradition. Although all three combine the study of language and classical culture, they differ in focus and aim. Degree programs in Greek and Latin offer full courses of undergraduate study in Classics that stress the languages and literature of the classical world. Students who plan on graduate work in Classics are advised to major in one of these two programs. Grand Valley's innovative program in the Classical Tradition emphasizes the legacy of the classical world and specifically investigates the relationship between Greek and Roman civilization and the literary, artistic, intellectual, social, and political

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traditions of other cultures. Affording students the opportunity in large measure to design programs to fit their own talents, interests, and career goals, the program in the Classical Tradition addresses the needs of students who seek a broad acquaintance with the classical world, but with individual interests that do not fit easily into the confines of other departmental programs, and with the initiative to recognize, define, and pursue those interests.

All students electing a major or minor program in Classics will complete the following set of core courses:

Language Core: Seven hours in Greek or Latin at 200 level or above.

Cultural Core: *either* HST 350 and CLA 250 *or* CLA 320 *or* PHI 301; *or* HP 211/212 and HP 221/222.

Students electing both a major and a minor program in Classics will substitute an approved set of six departmental hours for the Cultural Core in one of the programs.

Students minoring in one of the classical languages may, upon recommendation of the departmental advisor, substitute two courses in the other language for three hours in the Cultural Core.

Major in Greek (minimum 34 hours):

Core Courses (13 hours)

Additional 18 hours of Greek at 300 level or above

CLA 495 Capstone

Minor in Greek (minimum 22 hours):

Core Courses (13 hours)

Additional nine hours of Greek at 300 level or above; for three of these hours, either CLA 270 or CLA 275 may be substituted.

Major in Latin (minimum 34 hours):

Core Courses (13 hours)

Additional 18 hours of Latin at 300 level or above

CLA 495 Capstone

Minor in Latin (minimum 22 hours):

Core Courses (13 hours)

Additional nine hours of Latin at 300 level or above; for three of these hours, CLA 280 may be substituted.

Major in the Classical Tradition (minimum 37 hours):

Core Courses (13 hours)

Additional six hours of Greek or Latin at 300 level or above

Additional 15 hours of departmental and nondepartmental courses according to approved study plan.

Senior Integrative Essay

CLA 495 Capstone

Minor in the Classical Tradition (minimum 22 hours):

Core Courses (13 hours)

Additional nine hours from following, with a minimum of six hours from Classics:

CLA 250	CLA 315	CLA 410	ANT 215	HST 345
CLA 270	CLA 320	CLA 461	ANT 350	PLS 231
CLA 275	CLA 345	CLA 479	COM 203*	PHI 220*
CLA 280	CLA 380	CLA 495	HP 300	PHI 301

*Upon recommendation of departmental advisor.

Classics

Courses of Instruction

Courses in Greek and Latin. All classes are conducted in English.

GRK 101 Elementary Ancient Greek I. An introduction to ancient Greek vocabulary, grammar, and syntax with an emphasis on reading works from the Homeric and classical periods. Four credits. Offered fall semester.

GRK 102 Elementary Ancient Greek II. Continuation of GRK 101. Language work will be supplemented with discussions of ancient Greek history and culture. Prerequisite: Completion of GRK 101. Four credits. Offered winter semester.

GRK 201 Intermediate Ancient Greek I. Continuation of GRK 102. Reading of an entire dialogue by Plato, such as the *Apology* or *Crito*. Prerequisite: Completion of GRK 102. Four credits. Offered fall semester.

GRK 202 Intermediate Ancient Greek II. Readings from Homer's *Iliad* or *Odyssey*, supplemented by study of early Greek history and culture. Fulfills World Perspectives requirement. Prerequisite: Completion of GRK 201 or permission of the instructor. Three credits. Offered winter semester.

GRK 301 Introduction to Ancient Greek Literature. Survey of ancient Greek literature after Homer, including authors such as Sappho, Sophocles, Herodotus, and Plato, and passages from the New Testament. Special attention to the development of different forms of writing in Greek (lyric, drama, history, philosophy) and to what the texts tell us about Greek society. Prerequisite: Completion of GRK 202 or permission of the instructor. Three credits. Offered fall semester.

GRK 302 Euripides. An introduction to ancient Greek drama through a close reading of one of Euripides' tragedies such as *Alcestis*, *Medea*, or *Hippolytus*. Special attention to the social, religious, and political context of the performances and to the staging, including the use of chorus, song, and spectacle. Prerequisite: Completion of GRK 301 or permission of the instructor. Three credits. Offered winter semester.

GRK 351 Greek Prose. Reading of philosophical, oratorical, or historical texts, such as Plato's *Symposium*, Lysias' court speeches, or Herodotus' *Histories*. Emphasis on the originality of the forms of prose that helped shape the Western tradition: the philosophical dialogue, the reflection of ordinary lives in oratory, and history as cultural anthropology. Prerequisite: Completion of GRK 301 or permission of the instructor. Three credits. Offered fall semester.

GRK 352 Greek Lyric Poetry. Survey of Greek lyric poetry in various meters and dialects, designed for both choral and solo performance. Authors include Archilochus, Sappho, and Simonides. Special attention to the themes of love, sexuality, and death, and to the status of lyric as social commentary and philosophical reflection performed in public. Prerequisite: Completion of GRK 301 or permission of the instructor. Three credits. Offered winter semester in even-numbered years.

GRK 399 Independent Reading. Supervised independent reading in Greek. Topic, credit, and time must be arranged with individual faculty member before registration. One to three credits. Offered fall and winter semester.

GRK 401 Greek Drama. Study of Aeschylean or Sophoclean tragedy or Aristophanic comedy in the cultural, historical, and theatrical contexts of Athenian drama. Topics include the staging of the plays, the emotional effects of tragedy or comedy, drama's function as political and social commentary, and the linguistic complexities of imagery and word-play. Prerequisite: GRK 301 or permission of the instructor. Three credits. Offered fall semester.

GRK 402 Greek Narrative. Study of Greek narrative in poetry or prose, from such texts as the *Homeric Hymns*, Homer's *Odyssey*, Thucydides' *Peloponnesian War*, or the New Testament. Prerequisite: GRK 301 or permission of the instructor. Three credits. Offered winter semester in odd-numbered years.

LAT 101 Elementary Latin I. An introduction to Latin vocabulary, grammar, and syntax with emphasis on the language of the classical period. Four credits. Offered fall semester.

LAT 102 Elementary Latin II. Continuation of LAT 101. Prerequisite: Completion of LAT 101. Four credits. Offered winter semester.

LAT 201 Intermediate Latin I. Continuation of LAT 102 or 150. Introduction to the study of selected ancient authors. Prerequisite: LAT 102 or 150, or appropriate high school background. Four credits. Offered fall semester.

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LAT 202 Intermediate Latin II. Readings in Virgil's *Aeneid*, supplemented by study of the history and culture of Augustan Rome. Prerequisite: Successful completion of LAT 201, or appropriate high school background. Fulfills World Perspectives requirement. Three credits. Offered winter semester.

LAT 301 Introduction to Latin Literature. A survey of Latin literature from Plautine comedy to the literature of the early Empire. Special attention to the development of different forms of writing, including drama, history, oratory, and lyric poetry and to what the texts tell us about Roman society. Prerequisite: Completion of LAT 202 or permission of the instructor. Three credits. Offered fall semester.

LAT 302 Ovid. Introduction to Ovid's poetry through close reading of selections from the erotic poetry, the *Metamorphoses*, the *Fasti*, or the exile poetry. Topics include the social and political context of Ovid's poetry, gender roles and relations between the sexes, satire and humor, and Ovid's poetic response to the policies of Augustus. Prerequisite: LAT 301 or permission of the instructor. Three credits. Offered winter semester in even-numbered years.

LAT 351 Latin Prose. Readings from the works of authors such as Cicero, Livy, Pliny, Tacitus, and Augustine, in genres such as oratory, history, philosophy, and epistolary writing. Special attention to the social and literary contexts of the Latin works and to their influence on contemporary ways of thinking, writing, and viewing the world. Prerequisite: Completion of LAT 301 or permission of the instructor. Three credits. Offered fall semester.

LAT 352 Roman Drama. An introduction to Roman drama through a close reading of the comedies of Plautus or Terence or the tragedies of Seneca. Particular attention to the social context, language, and stagecraft of the plays, to their techniques of characterization, and to their place within the wider traditions of western drama. Prerequisite: Completion of LAT 301 or permission of the instructor. Three credits. Offered winter semester in odd-numbered years.

LAT 362 Medieval and Renaissance Latin. An introduction to Medieval and Renaissance Latin through the close reading of authors such as Augustine, Bede, Hrotsvitha, Petrarch, Pontano, and Erasmus. Special attention to the linguistic features of post-classical Latin and to the development of different forms of writing, including autobiography, drama, history, philosophy, and lyric poetry. Prerequisite: Completion of LAT 301 or permission of the instructor. Three credits. Offered winter semester in odd-numbered years.

LAT 399 Independent Reading. Supervised independent reading in Latin. Topic, credit, and time must be arranged with individual faculty member before registration. One to 3 credits. Offered fall and winter semester.

LAT 401 Roman Poetry. Readings from the works of Roman poets such as Catullus, Lucretius, Virgil, Horace, and Juvenal. Topics include attitudes toward love; the relationship of poets and their patrons; war, power, and politics; poetry as a vehicle of social commentary; and the response of the Roman poets to Greek literature and philosophy. Prerequisite: Completion of LAT 301 or permission of the instructor. Three credits. Offered fall semester.

LAT 402 The Roman Novel. Readings from Petronius' Satyricon or Apuleius' *Metamorphoses*, focusing on the novel as a vehicle of social commentary. Special attention to the role of slaves and freedmen, the relationship of patrons and clients, relations between the sexes, and aspects of everyday life: dress, food, education, domestic architecture, and forms of entertainment. Prerequisite: Completion of LAT 301 or permission of the instructor. Three credits. Offered winter semester in even-numbered years.

Courses in Translation

CLA 121 Greek Civilization. An introduction to the major cultural accomplishments of ancient Greece from the Bronze Age through the death of Alexander the Great. Emphasis on Greek literature, art, philosophy, and political institutions both in their historical contexts and as achievements of continuing importance in the contemporary world. Fulfills Historical Perspectives Foundation. Three credits. Offered fall semester.

CLA 201 Classical Literature. Great works from the ancient world in translation, selected from Homeric epics, plays of Aeschylus, Sophocles, Euripides, and Aristophanes, and from such other classic works as Virgil's *Aeneid*, the Bible, and Eastern epics such as *Gilgamesh*. Fulfills Philosophy and Literature Foundation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

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CLA 250 Classical Art and Archeology. Survey of the art and archeology of the classical world from the Bronze Age through the dissolution of the Roman Empire. Emphasis on the development of the characteristic forms of classical art, the aesthetic and historical contexts of specific works, and the techniques of classical archeology that have revealed them. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered winter semester.

CLA 270 Homer and the Archaic Age. The epics of Homer and the literature of the archaic age of Greece studied in their cultural context. In addition to the *Iliad* and *Odyssey*, selections from the Homeric Hymns and works of such authors as Hesiod, Sappho, and Parmenides will be included. All works read in English translation. Cross-listed with ENG 270. Students may not receive credit for both classes. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered odd years, fall semester.

CLA 275 Ancient Drama. A study of the drama of ancient Greece and Rome, from playwrights such as Sophocles, Euripides, Aristophanes, and Plautus. Readings of tragedy and comedy will be augmented by considerations of ancient dramatic theory and the possibilities of performance on the ancient and modern stage. All works read in English translation. Cross-listed with ENG 275. Students may not receive credit for both classes. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered even years, winter semester.

CLA 280 The Roman Response to Greece. A study of the major works of Roman literature and the ways they reveal Rome's adoption and transformation of the cultural experience of ancient Greece. Emphasis on epic, lyric, and drama, including such authors as Virgil, Ovid, Horace, and Plautus. All works read in English translation. Cross-listed with ENG 280. Students may not receive credit for both classes. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered even years, fall semester.

CLA 315 Ancient Religion. A study of the religious beliefs and practices of the ancient world, emphasizing the religious traditions of Greece, Rome, Egypt, and the Near East. Topics include views of the afterlife, temples and sanctuaries, religion in daily life, "mystery" religions, and the rise of the monotheistic religions of Judaism and Christianity. Part of Religion theme. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall semester.

CLA 320 Women in the Classical World. Introduction to women's lives and gender relations in ancient Greece and Rome, in both the private world of the family and the public sphere of religion and politics. Topics include myths about women; how legal, medical, and philosophical texts represent women; and what women say about themselves in their writings. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered winter semester.

CLA 345 Tradition and Reception. Study of specific classical authors or genres of classical literature or art and the ways they have been understood, adapted, and transformed in new cultural environments of later periods. The course may consider authors such as Sappho, Aristotle, and Virgil or genres such as epic, comedy, lyric, and temple architecture. May be repeated for credit when content varies. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall semester in odd-numbered years.

CLA 380 Special Topics. The study of special topics or areas in Classics and the Classical Tradition not offered in the regular curriculum. May be repeated for credit when content varies. Three credits.

CLA 410 Literary Translation: Theory and Practice. An introduction to the theory, practice, and art of translating poetry, prose, and drama. In a workshop format, students translate texts into English from their choice of ancient or modern languages, and study the history, theory, and the social, cultural, and political contexts of translation. Prerequisite: Fulfillment of the B.A. Cognate requirement in a foreign language or permission of the instructor. Three credits. Offered winter semester in odd-numbered years.

CLA 461 Studies in the Classical Tradition. Examines the relationship between classical civilization and a specific region, period, or intellectual movement of the nonclassical world. Emphasis on how the Classics and classical cultures were understood and exploited in different cultural environments such as medieval Spain, the Renaissance, the American Enlightenment, Modernism, or post-colonial Africa. May be repeated for credit when content varies. Prerequisite: Junior standing or permission of the instructor. Three credits. Offered fall semester in even-numbered years.

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CLA 479 Classical Theater Workshop. Rehearsal and public performance of a play selected from the repertory of ancient Greek and Roman drama. Prerequisite: GRK or LAT 201, or permission of the instructor. Three credits. Offered winter semester in even-numbered years.

CLA 495 Notions of the Classics (Capstone). A critical examination of the concepts of “the Classics” and “Classicism” as a context for the contemporary field of Classics, emphasizing the shifting range of the terms and the different ways both they and the classical world have been and can be understood, adapted, and transformed. Required of all majors in Greek, Latin, and The Classical Tradition. Prerequisite: Senior standing or the permission of the instructor. Three credits. Offered winter semester.

CLA 499 Independent Study and Research. Supervised individual research in an area of interest to the student; culminates in a research paper. Prerequisite: Junior standing and the permission of the instructor supervising the research. One to three credits. Offered fall and winter semester.

Students interested in Classics should also note the following courses offered by related programs:

ANT 215 Origins of Civilization	HST 350 Classical Greece and Rome
ANT 220 Introduction to Archaeology	HP 211/212 Classical World I
ANT 350 Archaeology of the Middle East	HP 221/222 Classical World II
COM 203 Argument and Analysis	HP 300 Classical Mythology
ENG 204 Mythology	PHI 301 Ancient Great Philosophers
HST 345 The Ancient Mediterranean and Orient	PLS 231 Classical Political Thought

The School of Communications

Director: Nesterenko. Professors: Ellis, R. Harper, Morse, Rathbun; Associate Professors: Helgert, Mayberry, Nesterenko, Perrine, Roos; Assistant Professors: Anton, Beery, Bell, Libman, Pednekar-Magal, Philbin, Pritchard, Roberts, Sheffield, P. Taylor, Thompson, Veenstra.

Communications is a multidisciplinary liberal arts and professional field. At Grand Valley a student may choose a general major in communications or one of seven specialized majors.

Communication Arts includes majors in Film and Video Production, Photography, and Theatre. In these fields communication is seen primarily as the creation of meaning in both original work and performance. Besides language, these fields emphasize communication by means of images, movement, and dramatic action.

Mass Communications includes majors in Advertising and Public Relations, Broadcasting, and Journalism. These fields deal with the communication of information to mass audiences. Studies emphasize verbal and nonverbal messages and the constantly developing technology used in these specialties.

The Health Communication major was developed in direct response to a growing need for professional communicators in the health care fields. Health communication majors are educated across a wide range of content in advertising, public relations, writing, marketing, and the health sciences.

The General Major in Communications draws on the resources of both communication arts and mass communications. To these it adds the rhetorical tradition that emphasizes discourse—both person to person and to audiences, by public address, argumentation, persuasion, and discussion.

In all major fields students will be expected to acquire the theoretic insights and practical skills appropriate to their professions.

Communications

In order to create a common experience for students in the School of Communications, a common core of coursework is required of all majors. By integrating diverse disciplines and traditions, these courses help students understand the nature of human communication.

Internships

The School of Communications faculty believe that an internship can be a significant part of the individual's undergraduate program. Students may elect to take more than one internship. Students are strongly urged to work closely with their faculty advisor or internship coordinator in identifying internships that best suit their interests and career ambitions.

The School of Communications Core Requirement

All students majoring in the School of Communications must complete the following core courses, for a total of nine credits:

COM 101 Concepts of Communication

and two of the following:

COM 201 Speech

COM 210 Nonverbal Communication

COM 215 Story Making (SWS)

Students also complete the requirements for one of the eight majors listed below.

Capstone requirement: COM 495 Theories of Communication. All students majoring in the School of Communications must take COM 495 (three credits) during their senior year. This capstone course offers a synthesis of ideas and theories before students embark on a professional career.

B.A. and B.S. Cognates

All undergraduate programs in the School of Communications offer both the B.A. degree and the B.S. degree. All students selecting majors in the School of Communications must choose *either* the B.A. cognate *or* the B.S. cognate that is intended for a particular undergraduate program.

B.A. Cognate

The B.A. degree requires a third-semester proficiency in a foreign language of the student's choice.

B.S. Cognate

The B.S. degree requires a three-semester sequence of courses that emphasize research methodologies.

For Advertising and Public Relations, General Communications, and Journalism, the B.S. cognate is

STA 215 Introductory Applied Statistics

SS 300 Research Methods in the Social Sciences

COM 375 Communication Research

For the Film and Video Production, Photography, and Theatre programs, the B.S. cognate is

CS 150 Introduction to Computing, or PHI 103 Logic

STA 215 Introductory Applied Statistics

SS 300 Research Methods in the Social Sciences

Communications

For the Broadcasting and Health Communication programs, the B.S. cognate is

STA 215 Introductory Applied Statistics

MKT 352 Marketing Research

COM 375 Communication Research

Advertising and Public Relations

The advertising and public relations program is designed to provide understanding of key aspects of the advertising and public relations professions and the basic knowledge required for success in these fields. Practical experience is gained through classroom projects, independent study, and internships.

The objective of this professional program is practical orientation within an academic environment. All students are required to take courses applicable to advertising and public relations as well as to business in general. Major-field electives help students to concentrate in the areas of advertising or public relations, according to their particular interest or talent. Among careers students can prepare for are advertising and public relations management, copywriting, advertising sales, public relations writing and program development, and media strategy and planning.

Advertising Sequence

1. *School of Communications Core* (9 credits).

2. *Advertising Core* (31 credits).

CAP 210 Fundamentals of Advertising

CAP 220 Fundamentals of Public Relations

CAP 310 Advertising Management and Cases

CAP 315 Advertising Copywriting

CAP 400 Advertising/Public Relations Campaigns

CAP 413 Media Planning

CFV 125 Media Production I

CJR 256 News Reporting I

ART 107 Reproduction Processes

PHI 325 Ethics in the Professions

3. *Electives* (minimum 9 credits).

With advisor approval, select a minimum of three courses at the 200 level or above from the following areas: advertising, business, communication, film and video production, journalism, photography, psychology, public relations.

4. *Capstone*: COM 495 Theories of Communication (3 credits).

Public Relations Sequence

1. *School of Communications Core* (9 credits).

2. *Public Relations Core* (31 credits).

CAP 210 Fundamentals of Advertising

CAP 220 Fundamentals of Public Relations

CAP 320 Public Relations Management and Cases

CAP 321 Public Relations Writing I

CAP 400 Advertising/Public Relations Campaigns

CAP 423 Public Relations Writing II

CFV 125 Media Production I

CJR 256 News Reporting I

ART 107 Reproduction Processes

PHI 325 Ethics in the Professions

Communications

3. *Electives* (minimum 9 credits).

With advisor approval, select a minimum of three courses at the 200 level or above from the following areas: advertising, business, communication, film and video production, journalism, photography, psychology, public relations.

4. *Capstone*: COM 495 Theories of Communication (3 credits).

Minor in Advertising and Public Relations

Requirements for a minor in advertising and public relations are courses selected with the permission of an advisor for a total of 21 credits. However, the following courses are required:

CAP 210 Fundamentals of Advertising

CAP 220 Fundamentals of Public Relations

ART 107 Reproduction Processes

CAP 310 Advertising Management and Cases, or CAP 320 Public Relations Management and Cases

Broadcasting

The Broadcasting major prepares students for entry into any of the various electronic media commonly understood by the terms: television, radio, cable, direct broadcast satellite (DBS), and whatever Internet-based convergence ultimately evolves. This is an especially exciting time for broadcasters, who will be a part of the creation of the new media.

The core is required of all majors. It ensures that students will have broad understanding of the history, operation, regulation of broadcast media, and economic, social, and cultural influences on those media. The major then divides into two tracks, Broadcast Production and Broadcast News. The overriding objective of both tracks is to provide the intellectual and ethical tools that will allow students to operate successfully and responsibly in the professional world of broadcasting.

Broadcast Production majors will learn studio-based, multiple-camera TV production. This emphasis prepares students to step into a TV studio or video production facility and function professionally at the entry level.

Broadcast News majors will learn the basic reporting concepts and practices common to print, video, and radio. Students will work on a weekly newscast that is broadcast to the campus community. This emphasis prepares students to step into small to medium market TV or radio stations as a reporter.

Broadcasting majors are offered internship opportunities with television, radio, and cable stations in West Michigan.

1. *School of Communications Core* (9 credits).

2. *Broadcasting Requirements*

All majors take the following core courses (18 credits):

CBR 220 Beginning TV Studio Production

CBR 240 Survey of Electronic Media

CBR 340 Life on Television

CBR 350 Broadcast Operations

CBR 411 Broadcast Seminar

CFV 261 Scriptwriting I

Select one of the following sequences:

Broadcast Production (13 credits):

CBR 281 Audio Production I

Communications

CBR 320 Advanced TV Studio Production
CBR 382 Audio Production II
CFV 125 Media Production I

or:

Broadcast News (12 credits):
CBR 368 Broadcast News I
CBR 468 Broadcast News 2
CBR 484 TV News Workshop
CJR 256 News Reporting I

Electives (6 credits):

After consulting with a Communications advisor, chose at least six credits from any School of Communications discipline at the 200 level or above.

4. *Capstone*: COM 495 Theories of Communication (3 credits).

Film and Video Production

A strong hands-on emphasis characterizes the film/video program. The curriculum integrates production experience with the insights offered by media history, theory, and criticism. Students are encouraged to recognize the increasing synthesis between computers, film, video, and audio.

Graduates find a wide range of professional employment, both in West Michigan and nationally, including positions in the feature film industry on the West Coast, in the expanding field of computer animation, at regional radio and television stations, advertising agencies, in cable and public access management, and with production and post-production houses, school systems, and corporations. Other students have chosen to continue their education in graduate school, usually working toward the master of fine arts degree.

Video facilities include video nonlinear editing suites, cuts-only editing suites, digital camcorders, S-VHS camcorders, a fully equipped nonbroadcast television studio, and a state-of-the-art audio studio. The 16mm facilities include editing flatbeds, single and double system camera packages, and a full complement of lighting equipment. Students work with a variety of programs in a Macintosh computer animation laboratory. Students intern or are employed in production at WGVU/WGVK-TV, Channels 35 and 52, a PBS affiliate licensed to Grand Valley State University.

Admission

In order to maintain high-quality instruction, the film/video program limits the number of students accepted each year into CFV 226 and all 300- and 400-level film/video courses.

Students are required to have an overall GPA above 2.0 and complete the three film/video pre-admission courses (with a minimum of 2.5 GPA) in order to apply for admission to CFV 226 and to 300- and 400-level film/video courses. Achievement of these minimum criteria does not guarantee admission (see below). The following required pre-admission courses may be taken in any order:

Pre-admission courses:

1. CFV 124 Image and Sound
2. CFV 125 Media Production I
3. CFV 170 American Cinema

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Having met these requirements, students will submit an admission application. Guidelines for the application are available on request from the School of Communications Office, 121 Lake Superior Hall. All prospective majors must submit an admission application. Applications are accepted the first Monday of November, February, May, and August.

Students may petition to bypass the three pre-admission courses on the basis of prior coursework for which they have received a 2.5 minimum GPA at another post-secondary institution. The petition should include a syllabus plus one or more projects and/or papers from the prior course(s). On the basis of these materials, the film/video faculty will determine what GVSU coursework, if any, is required of the petitioner prior to admission to CFV 226 and to CFV 300- and 400-level courses. Students may not take 200-level or higher CFV courses until they are admitted to the major.

Students interested in the film/video major are urged to complete the "Declaration of Major" form promptly upon admission to GVSU and to maintain regular contact with their advisor to ensure proper course enrollment and steady progress toward full acceptance.

1. *School of Communications Core* (9 credits)
2. *Film/Video Foundation* (20 credits)
 - CFV 124 Image and Sound*
 - CFV 125 Media Production I*
 - CFV 170 American Cinema*
 - CFV 226 Media Production II
 - CFV 261 Scriptwriting I
 - CBR 281 Audio Production I
3. *Emphasis Areas* (select one emphasis: A, B, C, or D)
 - A. *Animation* (21 credits)
 - CFV 325 Animation I
 - CFV 326 Computer Image Making
 - or ART 155 Foundations: Introduction to Drawing I
 - CFV 425 Animation II
 - CFV 426 Cinematic Multimedia
 - or ART 257 Life Drawing
 - CFV 370 Film and TV Interpretation
 - Two additional history/theory/criticism courses
 - B. *Film Production*** (21 credits)
 - CFV 321 16mm Film Production I
 - CFV 328 Film Practicum I** (variable credit)
 - or CFV 428 Film Practicum II (variable credit)
 - CFV 370 Film and TV Interpretation
 - CFV 424 16mm Film Production II
 - CFV 429 Film Practicum III
 - Two additional history/theory/criticism courses

*Minimum 2.5 GPA overall required to achieve major status. See admission policy.

**Students who select the film production emphasis must complete at least three credits in CFV 328 or CFV 428.

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C. *Video Production* (21 credits)

Four production courses above CFV 226, at least one of which is at the advanced (400) level.

CFV 370 Film and TV Interpretation

Two additional history/theory/criticism courses

D. *Cinema Studies* (21 credits)

Two intermediate (300 level) production courses

CFV 370 Film and TV Interpretation

Four additional history/theory/criticism courses

Students who select the cinema studies emphasis must complete a senior thesis (not project). See #4, below.

4. *CFV 498 Senior Thesis/Project, or CFV 490 Internship* (variable credit).

5. *Capstone: COM 495 Theories of Communication* (3 credits).

Intermediate Production:

CBR 320 Advanced TV Studio Production

CBR 382 Audio Production II

CFV 321 16mm Film Production I

CFV 322 Documentary and Field Production

CFV 323 Radio and TV Electronics

CFV 325 Animation I

CFV 326 Computer Image Making

CFV 327 Film and Video Art

CFV 328 Film Practicum I

CFV 329 Film Practicum III

CFV 330 Nonlinear Editing

CFV 362 Scriptwriting II

CFV 368 Lighting for Film/Video Production

Advanced Production:

CBR 485 Audio Production III

CFV 424 16mm Film Production II

CFV 425 Animation II

CFV 426 Cinematic Multimedia

CFV 428 Film Practicum II

CFV 470 Business and Educational Media

History/Theory/Criticism:

CFV 370 Film and TV Interpretation

CFV 375 World Cinema

COM 348 Film Theories (SWS)

COM 371 Media and Society

COM 372 Global Communications

COM 373 Women and Minorities in Film and Television

General Major in Communications

The general major in communications is designed to combine a broad overview of communication. The aim is for students to become adaptable, resourceful, and generally educated communicators who can draw upon all the ways of looking at communication embodied in the programs of the school to solve practical problems of communication.

Some courses, beyond those required for distribution, are required from outside the school. These help the student obtain subject matter about which to be

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a knowledgeable communicator, or they provide a critical perspective upon communication from a larger context.

1. *School of Communications Core* (9 credits).

2. *General Communication Core* (9 credits):

COM 203 Argument and Analysis (SWS)

COM 301 Interpersonal Communication, or COM 371 Media and Society

COM 498 Senior Thesis/Project (minimum of 3 credits)

3. *Mass Communication*

Minimum of 9 credits in one—i, ii, or iii.

i. Advertising and Public Relations:

CAP 210 Fundamentals of Advertising, or CAP 220 Fundamentals of Public Relations

CAP 315 Advertising Copywriting, or CAP 321 Public Relations Writing I

CAP 310 Advertising Management and Cases, or CAP 320 Public Relations Management and Cases

ii. Journalism:

CJR 256 News Reporting I

CJR 270 News Reporting II, or CJR 316 Editing

CJR 290 Journalism History

iii. Broadcasting:*

COM 240 Survey of Electronic Media

COM 371 Media and Society

CBR 368 Broadcast News Reporting, or CBR 281 Audio Production I

4. *Communication Arts*.

Minimum of 9 credits in one—i, ii, or iii.**

i. Film/Video:

CFV 125 Media Production I

CFV 225 Film Culture or CFV 170 American Cinema

COM 348 Film Theories, or CFV 370 Film and TV Interpretation

ii. Photography:

CPH 171 Photography I

CPH 172 Photography II

CPH 376 Photo History

CPH 278 Color-Positive Photography

iii. Theatre:***

CTH 151 Acting I: Improvisation

CTH 161 Theatre Production

CTH 371 Theatre History

CTH 380 Special Topics

*Students who select the Broadcasting emphasis must take COM 301 in the General Communication core, #2 above.

**In the Theatre group (iii) it is possible for as few as 8 credits to satisfy the credit requirement.

***In the Theatre group (iii) it is possible for as few as 8 credits to satisfy the credit requirement.

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5. *Outside Electives* (9 credits).

A minimum of nine credits from outside the School of Communications. These electives should be chosen from a coherent group of courses, approved by the advisor, that provide depth in a single topic, issue, or subject, or in theory, criticism, or policy. Such a group may include courses from more than one discipline. All courses in the group must be at the 200 level or above and must not have been counted for distribution credit.

6. *Capstone*: COM 495 Theories of Communication (3 credits).

Health Communication

The need for professional communicators in the health care industry has never been greater or more urgent. This industry, one of the largest in the United States, is expanding. It is also changing, so that the nature of health care delivery in the 21st century will be drastically different from what it is today.

Hospital-based health care under the supervision of a physician in private practice is being replaced by a complex system of health maintenance organizations (HMOs). These old and new components of health care, in keen competition with each other, have turned to techniques used by other industries. They are retailing their services to the public, using marketing, advertising, direct sales, public relations, and information activities.

The health communicator has the vital role of facilitating communications between aware but technically naive consumers and a system that is operated by highly skilled, deeply educated technical professionals whom the public does not fully understand. Thus, the skills and competency of the health communicator have become central to the success of the health care industry and, indeed, to its success in maintaining wellness and conquering disease.

Health communicators are well-educated college graduates who have a foundation in health sciences and who understand the principles and techniques of human communication. They are adept at written and visual communication and are skilled in public relations, advertising, and marketing. Health communicators also know the health care industry and its markets of potential patients.

The health communication curriculum at Grand Valley State University prepares students for careers in the health care industry and allows sufficient flexibility for them to emphasize one or more communication areas. An internship (COM 490) in the field of health communication is required, providing students with professional experience.

1. *School of Communications Core* (9 credits).*

2. *Health Sciences Core* (19 credits).**

BIO 103 The Biology of People
CHM 109 Introductory Chemistry
HS 111 Medical Terminology
HS 202 Anatomy and Physiology

*The health communication major requires COM 201 to be taken in the School of Communications core (1 above).

**A higher level laboratory biology class (such as BIO 111) can be substituted for BIO 103. A higher level laboratory chemistry class (such as CHM 115) can be substituted for CHM 109. See the School of Communications for an evaluation and further recommendations.

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HS 223 Public Health Concepts
SHP 340 Health Care Management

3. *Health Communication Core* (27 credits).

CAP 210 Fundamentals of Advertising
CAP 220 Fundamentals of Public Relations
CAP 321 Public Relations Writing I
CJR 256 News Reporting I
CJR 390 Technical Writing
COM 209 Health Communication Systems
COM 410 Senior Seminar in Health Communication
COM 490 Internship (minimum of 3 credits)
MKT 350 Marketing Management

4. *Elective Group* (select two of six courses for 6 to 8 credits).

ART 107 Reproduction Processes
ART 210 Graphic Design I
CFV 125 Media Production I
CFV 226 Media Production II
CPH 171 Photography I
CPH 172 Photography II

5. *Capstone*: COM 495 Theories of Communication (3 credits).

Journalism

The journalism program offers majors a broadly based education in which the study of journalism is grounded in the liberal arts. Students are encouraged to develop a thorough background in writing skills of different kinds and in literature. They are further encouraged to develop depth outside of journalism in an area common to the news science, business, foreign language studies, and sociology, among others.

Journalism studies at Grand Valley include a combination of theory and skills courses, as well as internships and other experiences, in *print* and *electronic media*. Students are strongly encouraged to publish articles in newspapers and magazines while still in school. Internship opportunities include the student-run weekly newspaper, *The Lantborn* daily and weekly newspapers, minority publications, trade and popular magazines, and commercial and public broadcasting stations.

1. *School of Communications Core* (9 credits).

2. *Journalism Core* (24 credits).

COM 203 Argument and Analysis
CJR 236 News in Society
CJR 256 News Reporting I
CJR 270 News Reporting II
CJR 290 Journalism History
CJR 316 Editing
CJR 454 Community Reporting
CJR 465 Issues in Journalism

3. *Emphasis Area*—select one, either A or B

A. *Print Journalism* (9 credits)

CJR 364 Article Writing
CJR 365 Advanced Editing
CJR 481 Investigative Reporting

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B. *Electronic Journalism* (14 credits)

CFV 125 Media Production I
CFV 226 Media Production II
CBR 368 Broadcast News I
CBR 482 Broadcast News II

4. *Outside Elective* (9 credits)

A minimum of nine credits from outside the School of Communications selected with advisor approval. These electives can be chosen from a coherent group of courses or from more than one discipline, but should offer coherence and depth to complement the journalism program. All courses in this group must be at the 200 level or above and must not have been counted for general education credit.

5. *Capstone*: COM 495 Theories of Communication (3 credits).

Photography

Students are encouraged to explore a variety of photographic formats, including 35mm and 4x5 view camera, and to acquire experience in black-and-white, color, and digital imaging processes.

Working closely with a faculty advisor, students plan at least 36 semester credits directly relating to photography, plus the communications core (nine credits), and the capstone (three credits). Students connect photography to related fields in the visual arts, performing arts, media and publications, and the humanities.

The emphasis of the photography program is on the students' growth as educated picture makers who not only know photography, but also know something about themselves, about the world around them, and about the culture that has shaped them. Students are expected to develop a working knowledge in many areas of visual communication and are encouraged to pursue elective studies in areas that provide a broad understanding of social and cultural issues and the role of the visual communicator in contemporary society.

Photography majors prepare for positions as visual communicators in fields that vary from purely "photographic industry" to areas in which an understanding of photography is but one of several elements comprising a communications activity. Some graduates move directly into such areas as freelance, medical, scientific, industrial, journalistic, editorial, and portrait or commercial photography. Others combine photography with additional media skills for entry into areas as diverse as advertising, audio-visual production, graphic arts, television and motion picture production, printing, and publishing. Some graduates find employment in the photographic processing and finishing industry that serves the needs of the millions of people who employ cameras in the course of their activities.

Finally, a large number of graduates pursue photography as a fine art and many continue their education in graduate programs.

1. *School of Communications Core* (9 credits).

2. *Photography Core* (eight courses, for a minimum of 27 credits).

CPH 171 Photography I
ART 150 Two-Dimensional Design
CPH 172 Photography II
CPH 273 Classic 4 x 5 Photography
CPH 278 Color-Positive Photography or

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CPH 279 Color Printing

CPH 372 Computer Photo I

CPH 376 Photo History

CPH 498 Senior Thesis

3. *Electives* (minimum of 9 credits).

CPH 371 Experimental Black and White Photography

CPH 373 Computer Photo II

CPH 374 Color Photography

CPH 375 Studio Photography

CPH 377 Social Eye

CPH 380 Advanced Problems in Photography

CPH 399 Independent Study

CPH 490 Internship

4. *Capstone*: COM 495 Theories of Communication (3 credits).

Theatre

The major in theatre prepares students for careers that require skills in communications, creativity, and problem-solving, or for careers in the entertainment industry. It provides professional orientation and background within a broad liberal arts framework. Students may use the major as a preparation for graduate or professional work; the required courses provide basic training in essential theatre areas, and students planning to pursue more advanced work should take well-chosen electives in areas designed to increase specific skills.

All majors are required to participate in productions sponsored by the School of Communications; academic credit is given for all such involvement. Also, students may pursue internships with professional theatres, locally, regionally or nationally, as managers, publicists, technicians, and production assistants.

Versatility in a number of areas is the single most important factor in obtaining work. Grand Valley theatre students have successfully completed programs in graduate schools and professional conservatories. They have found work in schools and recreation departments, repertory theatre companies, modern dance companies, and arts organizations as performers, technicians, teachers, designers, directors, and administrators. The combination of critical and problem-solving communications skills with the self-confidence and responsibility coming from performance experience provides excellent training for many non-entertainment fields. A complete list of placement and careers of recent theatre graduates is available upon request.

1. *School of Communications Core* (9 credits)*.

2. *Theatre Core* (35 credits)

CTH 151 Acting I: Improvisation

CTH 161 Theatre Production

CTH 162 Play Analysis

CTH 252 Acting II: Characterization

CTH 261 Stagecraft

CTH 262 Costume Construction

CTH 371 Theatre History

*The theatre program requires COM 201 and COM 210 in the School of Communications core above.

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CTH 372 Modern Theatre
CTH 365 Directing I

*Two of the following***

CTH 367 Scenography
CTH 368 Lighting Design
CTH 369 Costume Design
CTH 465 Directing II
CTH 490 Internship or COM 498 Senior Thesis

3. Electives (9 credits)

CTH 198 Rehearsal and Performance
CTH 250 Stage Management
CTH 263 Makeup
CTH 300 Storytelling
CTH 356 Acting III
CTH 366 Theatre for Children
CTH 367 Scenography
CTH 368 Lighting Design
CTH 369 Costume Design
CTH 373 Global Arts Performance and Management
CTH 380 Special Topics
CTH 454 Acting IV
CTH 465 Directing II
CTH/CLA 479 Classics Workshop
MUS 357 Opera Theatre

Capstone: COM 495 Theories of Communication (3 credits)**

Note: Theatre majors are encouraged to take English 212 in general education.

Minor in Theatre

Minors must complete 20 hours of theatre coursework in any area. Students who are interested in completing a minor must meet with a faculty advisor in the theatre program.

Master of Communication

As the field of communication has matured, the value of empirically based decision-making has become increasingly clear. Communication professionals must be knowledgeable about acquiring and assessing relevant information and integrating the analysis of that information into the decision-making process.

Communication professionals who become managers and decision-makers will increasingly be selected because they have leadership skills, knowledge of research methodology, information systems and information access and assessment, the ability to effectively implement secondary information and primary data in the decision-making process, and a command of communication theory at the mass media, organizational, small group, and interpersonal levels. The curriculum of the master's program is attendant to these concerns.

The master's program is designed with working professionals in mind. Courses are scheduled during evenings and offered at GVSU's Eberhard Center on the Grand Rapids campus. Students who take one or two courses each semester will be able to complete the 36-credit program in three years.

**These two courses cannot also count for electives below.

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Required Courses

The following courses (27 credits) are required of all students.

COM 600 Systems Theory and Communication
COM 610 Secondary Information and Analysis
COM 620 Empirical Methods in Communication
COM 634 Ethics in Professional Communication
COM 641 Emerging Telecommunication Technologies
COM 642 Communication Law
COM 660 Communication Management and Cases
COM 695 Master's Thesis/Project
BUS 631 Leadership and Organization Dynamics
— or —
PA 520 Foundations of Public Management

Elective Courses

Three elective courses (9 credits) are required, either from the following list or from 600-level courses in business, public administration, or other programs for which students are eligible. See the School of Communications for approval.

COM 643 Small Group Communication and Leadership
COM 644 Network Analysis
COM 680 Special Topics
COM 699 Independent Study

Prerequisites and Entrance Requirements*

1. A baccalaureate degree from an accredited institution of higher education with a minimum GPA of 3.0.
2. Graduate Record Examination.
3. Full-time professional communication experience (preferably a minimum of three years).
4. Grades of B or better in the following undergraduate courses (or their equivalents):
 - COM 495 Theories of Communication
 - MGT 331 Concepts of Management
 - SS 300 Research Methods in the Social Sciences
 - STA 215 Introductory Applied Statistics
5. Basic competence with microcomputers.
6. An entrance essay (to determine the overall suitability of the applicant).
7. Two letters of endorsement from communication professionals.

Sample Curriculum

The following schedule assumes that the student has satisfied all background courses. For more information about the program, contact the School of Communications.

First Year

Fall

COM 600 Systems Theory and Communication

*Students must graduate with a minimum GPA of 3.0. Two grades of C or lower will result in dismissal from the master's program.

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Winter

COM 610 Secondary Information and Analysis

Spring/Summer

Elective course

Second Year

Fall

COM 620 Empirical Methods in Communication

Winter

BUS 631 Leadership and Organization Dynamics, or

PA 520 Foundations of Public Management

COM 634 Ethics in Professional Communication

Spring/Summer

Elective course

Third Year

Fall

COM 641 Emerging Telecommunication Technologies

Elective course

Winter

COM 642 Communication Law

COM 660 Communication Management and Cases

Spring/Summer

COM 695 Master's Thesis/Project

Courses of Instruction

Advertising/Public Relations (CAP)

CAP 210 Fundamentals of Advertising. Basic principles of advertising, including its socioeconomic role; the function and operation of client advertising departments and the advertising agency; application of research, budgeting, and the creative process; media characteristics and media selection. Prerequisite: Completion of composition requirement with grade of C (not C-) or better. Offered fall and winter semesters. Three credits.

CAP 220 Fundamentals of Public Relations. Basic principles covering the role of public relations in society, public relations principles and their application, procedures for planning and implementing public relations campaigns, the identification of publics and the strategies for influencing them. Prerequisite: Completion of composition requirement with grade of C (not C-) or better. Offered fall and winter semesters. Three credits.

CAP 305 Sports Promotion. Deals with sports promotion, sponsorship, and the lifestyle industry by studying the effect of media on sports, using critical analysis and exploring communication theory. Emphasis on defining and applying communication concepts and strategies, including the corporate motivation to participate in sports sponsorship. Prerequisite: 220 or permission of instructor. Offered winter semester of even-numbered years. Three credits.

CAP 310 Advertising Management and Cases. Management and direction of the advertising function as viewed and practiced by the client advertising manager, the advertising agency, and the media. Analysis of actual cases and presentation of findings and recommendations. Prerequisite: 210. Offered fall and winter semesters. Three credits.

CAP 311 Direct Advertising. Study of direct mail as used to promote magazine circulation, merchandise, services, resorts and travel, conventions and meetings, fundraising, and other purposes. Includes emphasis on determining appropriate creative strategy, format, and development of budgets. Prerequisite: 210 or permission of instructor. Offered every fall. Three credits.

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CAP 312 Merchandising and Sales Promotion. A study of the methods and materials that supplement advertising, public relations, and personal selling in the marketing mix. Prerequisites: 210 and 220 or permission of instructor. Offered on sufficient demand. Three credits.

CAP 315 Advertising Copywriting. Practice in the copywriting process, from conception of ideas to finished copy for product and corporate advertising objectives. Prerequisite: CJR 256 or permission of instructor. Offered fall and winter semesters. Three credits.

CAP 320 Public Relations Management and Cases. The public relations function viewed from the management, consultant, and employee positions through use of text material and case studies. Prerequisite: 220. Offered fall and winter semesters. Three credits.

CAP 321 Public Relations Writing I. Teaches skills beyond basic techniques. Includes practice in writing brochures, letters, internal announcements, annual reports, corporate statements, speeches, and other forms of written communication expected of the public relations writer. Prerequisite: CJR 256 or permission of instructor. Offered fall semester. Three credits.

CAP 380 Special Topics. A study of special topics not regularly covered in the curriculum. Expectations of the student in this course approximate those in other 300-level courses. Prerequisite: Sophomore standing. Three credits. May be repeated for credit when content varies. Offered on sufficient demand.

CAP 399 Independent Study in Advertising/Public Relations. Individually designed learning projects. Prerequisites: Advertising/public relations major, junior status, and permission of advisor. Offered fall and winter semesters. Variable credit.

CAP 400 Advertising/Public Relations Campaign. Planning and presentation of a response to an advertising/public relations problem or objective of an actual organization. Includes liaison with the client organization throughout the semester and presentation to the client at the conclusion of the semester's work. Prerequisites: 310 or 320 and senior standing. Offered fall and winter semesters. Three credits.

CAP 413 Media Planning. Methods of analyzing and evaluating media, selection of media for target audiences, consideration of budget factors, and preparation of media plans. Prerequisites: 210 and 220 or permission of instructor. Offered fall semester. Three credits.

CAP 423 Public Relations Writing II. An advanced writing course on the research, development, and preparation of corporate communications. Uses desktop publishing. Includes brochures, annual reports, employee newsletters, executive speeches, position papers, backgrounders, corporate memos, customer letters, and crisis communications. Prerequisite: 321. Three credits.

CAP 425 International Advertising and Public Relations. Addresses the key issues that advertising and public relations practitioners must keep in mind to create effective communication programs for foreign markets: cultural norms and values, political environments, economic policies, legal considerations, and social contexts. Prerequisite: 310 or 320. Offered winter semester of odd-numbered years. Three credits.

CAP 490 Internship in Advertising/Public Relations. Practical work-study involving supervised on-the-job experience in advertising and public relations. Prerequisites: Advertising/public relations major, junior status, and permission of advisor. Offered fall and winter semesters. Variable credit.

Broadcasting (CBR)

CBR 220 Beginning TV Studio Production. Introduction to basic skills and techniques of television studio production: producing, directing, lighting, camera, audio mixing, floor direction, etc. Class members serve as crew for various projects. Offered fall and winter semester. Three credits.

CBR 240 Survey of Electronic Media. Examines the development and current status of radio and television broadcasting. Topics covered include comparative broadcast systems, physical aspects, broadcast history, current trends in programming, and effects of broadcasting on our society. Offered fall semester. Three credits.

CBR 281 Audio Production I. Introduction to general principles of sound and to hardware and software of radio and other major media uses of sound. This is a production course. Offered fall, winter, and spring/summer semesters. Three credits.

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CBR 320 Advanced TV Studio Production. Advanced TV studio production techniques, building on concepts and skills developed in CBR 220. Class uses production facilities of WGVU. Prerequisite: 220. Offered fall semester. Three credits.

CBR 340 Life on Television. A critical examination of the world as portrayed on television, with particular emphasis on gender and ethnic stereotyping; trends in news and so-called "reality" programming; effects on audiences; economic, political, and social influences. Prerequisites: Preference to Broadcasting majors. Offered fall semester. Three credits.

CBR 350 Broadcast Operations. Focuses on the decision-making process necessary for the short- and long-term operation of broadcast facilities. Includes discussion of practical solutions to regulatory and personnel problems as well as small-group dynamics. Prerequisite: CBR 240. Offered winter semester. Three credits.

CBR 368 Broadcast News I. News writing for radio and television. Projects include writing and producing newscasts and interviews. Prerequisite: CJR 256. Offered winter semester. Three credits.

CBR 382 Audio Production II. A two-part course: First, core topics that are the foundation of all audio production. Second, topics of special interest, such as radio, TV, film, music recording, and digital audio. Throughout the course, professionalism will be stressed both in the final products and in the individual performance. Prerequisites: 281 or permission of instructor. Offered spring/summer semester. Three credits.

CBR 399 Independent Study. An experience of an essentially scholarly and/or creative nature undertaken by a student under the supervision of one or more faculty members. Initiated by the student who has a special interest in a subject that is not available in the current curriculum. The student and the faculty sponsor agree on the scope of the study, its components, and methods of evaluation. Offered every semester. Variable credit.

CBR 411 Broadcast Seminar. Senior course for broadcasting majors, intended to serve as a bridge between the student's academic and professional careers. Helps students synthesize their communication education into a view of the dominant themes, issues, and trends of the field. Prerequisites: CBR 240 and senior standing. Offered winter semester. Three credits.

CBR 468 Broadcast News II. Prepares students to work in electronic journalism as reporters, writers, anchors, editors, or producers. Students rotate through all aspects of the televised news process, including gathering, writing, editing, and reporting. This newscast will be broadcast to the Grand Valley community. Prerequisites: CBR 368. Offered fall semester. Three credits.

CBR 484 TV News Workshop. Intensive involvement in the TV news process, building on concepts and skills developed in Broadcast News 1 and 2. Researching, shooting, reporting, and editing stories for weekly campus cable TV newscast. Students serve as reporters, anchors, producers, and crew. Prerequisite: CBR 468. Offered fall and winter semesters. Three credits.

CBR 485 Audio Production III. Microphone use, mixing, and editing. Final project is an eight-track mix-down. The class uses the facilities of a professional recording studio. Prerequisite: 382. Offered fall semester. Three credits.

CBR 490 Internship in Broadcasting. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. Credit is awarded only when the student, the faculty sponsor and the work supervisor have completed evaluations of the internship. Offered every semester. Variable credit.

CBR 498 Senior Thesis/Project. The senior thesis/project demonstrates depth and sophistication in the major. Offered fall and winter semesters. Variable credit.

Film and Video Production (CFV)

CFV 124 Image and Sound. A beginning course in problem-solving skills, image-sound, and sequencing relationships applied to basic expression through visual and audio media. Students explore the principles that guide the development of creative solutions and learn basic terminology used in production and critique. A pre-admission course for film and video production. Offered fall and winter semesters. Three credits.

CFV 125 Media Production I. Fundamentals of video production, including the techniques and the aesthetics of shooting, lighting, and editing. Emphasizes hands-on production

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experience, using small format video. A pre-admission course for film and video production. Offered every semester. Four credits.

CFV 170 American Cinema. Introductory course in the critical study of film. Examines formal, economic, social, and historical aspects of film production and reception in the United States. Involves close textual analysis of historically important and/or exemplary films. A pre-admission course for film and video production. Offered fall and winter semesters. Three credits.

CFV 226 Media Production II. The second course in the media production sequence, emphasizing the techniques and aesthetics of editing. Includes television studio production using the facilities of WGVU/WGVK-TV, where students complete 20 lab hours. Prerequisite: 124, 125, 170 and/or admission to major. Offered every semester. Four credits.

CFV 261 Scriptwriting I. Writing for film, video, radio, and mixed media. Writing exercises in dramatic, informational, documentary, public service announcements, and commercial formats. Prerequisite: 125 or CPH 171 or permission of instructor. Offered every semester. Three credits.

CFV 321 16mm Film Production I. 16mm shooting, editing, conforming, and budgeting, using class members as production unit. Includes attention to the history and aesthetics of this format. Prerequisite: 124, 125, 170 and/or admission to major. Offered fall and winter semesters. Three credits.

CFV 322 Documentary and Field Production. Research, shooting, and editing for documentary and field production. Emphasis on video, with exercises in audio and film. Includes viewings and readings. Prerequisite: Admission to major and 226. Offered every year. Three credits.

CFV 323 Radio and Television Electronics. Basic electronics theory, audio and video recording, synthesizing on audio or video signal, and signal processing. Prerequisite: 226 or COM 281; Physics 226 or 229 recommended. Offered winter semester of even-numbered years. Three credits.

CFV 325 Animation I. An introductory course in animation filmmaking. Students will work in small groups on animation and movement exercises and will individually produce a short final film. Readings will be assigned, films will be viewed and discussed. Prerequisites: 124, 125, 170 and/or admission to major. Offered fall semester. Three credits.

CFV 326 Computer Image Making. An introduction to the Macintosh computer system for imaging, image manipulation, and multimedia production. Emphasis will be placed on how the computer as a tool affects the communications environment. Prerequisites: 124, 125, 170 and/or admission to major. Offered fall semesters. Three credits.

CFV 327 Film and Video Art. A practical examination of the elemental codes and structures of film and video. Exercises in lighting, sequencing, sound, color, and composition. Viewings and readings. Prerequisite: Admission to major and 226. Offered winter semester. Three credits.

CFV 328 Film Practicum I. Explores the craft of narrative drama in motion pictures. Students with some background in film, video, and/or audio gain an understanding of the professional model of media production by assisting in the planning and shooting of a dramatic film. Prerequisite: Permission of instructor. Offered spring/summer term (12-week course). Variable, three or six credits.

CFV 330 Nonlinear Editing. Explores conceptual issues in editing images and sound in a digital production environment. Prerequisite: Admission to major and 226. Offered fall and winter semesters. Three credits.

CFV 362 Scriptwriting II. A seminar in which students work on individual scripting projects of substantial length, using class and instructor for critical analysis. Prerequisite: 261. Offered winter semester. Three credits.

CFV 368 Lighting for Film and Video Productions. The process of studio and location lighting for film and video; principles, instruments, measurement tools, filters/diffusers, single/multiple setups, product shoots. Prerequisite: Admission to major and 226. Offered fall semester of odd-numbered years. Three credits.

CFV 370 Film and Television Interpretation. A series of courses, each of which considers the political, dramatic, and aesthetic qualities of a specific group of films or television programs. Prerequisite: Admission to major and 170. Offered every year. May be repeated for credit when content varies. Three credits.

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CFV 375 World Cinema. Explores the economic, historical, and cultural context for film production and exhibition in several countries to understand the relationship between cinema and national culture. Examines the influence and significance of films that have constituted alternatives to the Hollywood entertainment model. Close textual readings of foreign films. Prerequisite: Admission to major, 170, or permission of instructor. Offered winter semester of even-numbered years. Three credits.

CFV 380 Special Topics. A study of special topics not regularly covered in the curriculum. Expectations of the student in this course approximate those in other 300-level courses. Prerequisite: Sophomore standing. Three credits. May be repeated for credit when content varies.

CFV 399 Independent Study. An experience of an essentially scholarly and/or creative nature undertaken by a student under the supervision of one or more faculty members. Initiated by the student who has a special interest in a subject that is not available in the current curriculum. The student and the faculty sponsor agree on the scope of the study, its components, and methods of evaluation. Variable credit.

CFV 424 16mm Film Production II. Working in production teams, students will shoot a short synchronous sound motion picture from a pre-existing script. Prerequisite: Admission to major and 321. Offered winter semester. Three credits.

CFV 425 Animation II. Continued work in animation production for character and graphic animation. Introduction to 3-D computer animation and current technologies for special effects in motion pictures. Students will design, storyboard, and complete an animation project. Prerequisite: Admission to major and 325. Offered winter semester. Three credits.

CFV 426 Cinematic Multimedia. An introduction to multimedia production. Students will design, script, build, and user-test a variety of interactive learning modules that run on the Macintosh computer. The course will examine the increasing use of computers in motion picture and video production, including consideration of how cinematic techniques can be applied to interface design. Prerequisite: Admission to major and 326. Offered winter semester. Three credits.

CFV 428 Film Practicum II. Explores the craft of narrative drama in motion pictures. At an advanced level, film students gain theoretical and practical experience in the production of a dramatic film. Students fill skilled positions on the film's crew. Prerequisite: Admission to major and 424. Offered spring and summer semester (12-week course). Variable, three or six credits.

CFV 429 Film Practicum III. The process of audio, film, and video post-production, emphasizing the draft/revision process. The medium is film; however, editing will proceed in a nonlinear digital environment. Prerequisite: 261 and either 330 or CBR 281. Offered fall semester. Three credits.

CFV 470 Business and Educational Media. How the media expert serves within a problem-solving team. Development of media productions for actual clients. Prerequisite: One intermediate video production course (CFV 320 or higher). Offered fall semester. Three credits.

CFV 490 Internship. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. Credit is awarded only when the student, the faculty sponsor, and the work supervisor have completed evaluations of the internship. Offered every semester. Variable credit.

CFV 498 Senior Thesis/Project. The senior thesis/project demonstrates both depth and sophistication in the major. Offered every fall and winter semester, but *not* necessarily in the summer. Variable credit.

Journalism (CJR)

CJR 236 News in Society. News as a social phenomenon. Who decides what news is and how it is perceived, collected, stored, selected, displayed, and distributed. Analysis, criticism, and some projects. Prerequisite: 256 or permission of instructor. Offered fall semester. Three credits.

CJR 256 News Reporting I. Development of skills in news-gathering, reporting, writing, and copy-editing primarily for print media. Work on organizing news stories, finding

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information, interviewing, and writing to meet deadlines. Prerequisite: Fulfillment of the composition requirement. Offered fall, winter, and spring/summer semesters. Three credits.

CJR 270 News Reporting II. Gathering news, filtering and confirming facts, and writing both basic and advanced news stories for specific media, in appropriate format and language. Prerequisite: 256, or permission of instructor. Offered fall and winter semesters. Three credits.

CJR 290 Journalism History. Readings of and about significant journalists, from the development of the printing press to the present. Ranges from statements on freedom of opinion (Milton, Mill) to classic essayists and contemporary reporters who use a variety of styles in news reports, editorials, articles, and essays. Includes the history of the African-American and Native American press, and the development of journalism in radio, television, and cable. Offered winter semester of even-numbered years. Three credits.

CJR 316 Editing. How to edit writing, including your own, from a reader's point of view. Principles of rhetoric, logic and grammar applied to the substantial revision of nonfiction manuscripts, e.g., feature stories, magazine articles, technical reports, interpretive essays. Analysis of criteria for editorial judgment, e.g., Strunk and White, Beardsley, Orwell, style books. Prerequisite: 256 or permission of instructor. Offered winter semester. Three credits.

CJR 364 Article Writing. Practice in writing feature-length articles on factual subjects. Emphasis not on the ins and outs of getting published but on the fundamental skills involved in producing knowledgeable and readable material. A workshop dealing with the problems inherent in finishing a work. Professional editing standards insisted upon. Students will be encouraged to submit their finished work for publication. Prerequisite: 256 or permission of instructor. Offered fall and winter semesters. Three credits.

CJR 365 Advanced Editing. Focuses on the style and delivery components of the editing process. Methods for technical delivery of the written product, including headlines, text, photos, and captions; story and page design and packaging; working with photos and art; color considerations; and generating infographics to accompany stories. Prerequisite: 316. Offered winter semester. Three credits.

CJR 366 Arts Reporting and Criticism. A workshop in writing about the arts. Examination of the function of arts publicists, reporters and reviewers, and "serious" critics. Focus on conveying aesthetically relevant information about artifacts, exhibits, and performance in lucid and interesting prose. Film, video, theatre, music, dance, painting, sculpture, and other arts will be subjects, depending on the particular emphasis of the semester and the interests of the students. Prerequisite: Ability to write competently and experience or coursework in one or more of the arts. Prerequisite: 256 or permission of instructor. Offered fall semester of odd-numbered years. Three credits.

CJR 380 Special Topics. A study of special topics not regularly covered in the curriculum. Expectations of the student in this course approximate those in other 300-level courses. Prerequisite: Sophomore standing. May be repeated for credit when content varies. Offered fall semester of odd-numbered years. Three credits.

CJR 390 Technical Writing. The interpretation, rewriting, and editing of specialized material for both professional and general readers is emphasized. For advanced students in the sciences or writing. Students are required to read professional journals in one scientific or technical field, e.g., medicine, environmental science, chemistry, biology, psychology, computer science, communications, economics, or sociology. There will be practice in analyzing, organizing, and presenting information to a variety of audiences for different purposes. Writing definitions, abstracts, and instruction guides will also be used to develop clarity, concision, and control. Prerequisite: 270 or permission of instructor. Offered winter semester. Three credits.

CJR 399 Independent Study. An experience of an essentially scholarly and/or creative nature undertaken by a student under the supervision of one or more faculty members. Initiated by the student who has a special interest in a subject that is not available in the current curriculum. The student and the faculty sponsor agree on the scope of the study, its components, and methods of evaluation. Offered every semester. Variable credit.

CJR 454 Community Reporting. Course introduces community journalism through instruction in public affairs reporting methods. Assigned to "beats" within communities surrounding GVSU, students will write stories of depth under deadlines. Possible beats include local government, court reporting, law enforcement, education, business, and cultural diversity

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within communities, including regional news. Prerequisite: 270. Offered fall semester. Three credits.

CJR 465 Issues in Journalism. A seminar on two troublesome areas in contemporary journalism, spanning all media of mass communication: (1) changes in journalism wrought by technology and techniques, and (2) the rights and responsibilities of the press, involving ethical and legal issues. Prerequisite: Sophomore standing. Offered fall semester of even-numbered years. Three credits.

CJR 466 Freelance Journalism. The purpose of this course is to show students the various local, regional, and national markets for freelance materials; to outline specific steps for finding, researching, writing, and placing their stories, and to help students establish a base from which they can further explore outlets for their material. Freelance writing for newspapers, magazines, and public relations will be included. During the course students will be asked to write a query letter, research a topic of their choice and write out possible interview questions, submit at least four story ideas for publications of their choice, produce a short finished article, and participate fully in the work of the class. Offered on sufficient demand. Three credits.

CJR 481 Investigative Reporting. Discusses the techniques as well as the problems and pitfalls of journalistic investigation. Develops skills in investigation and reporting through the use of classroom examples and individual and team assignments. Emphasis on real-life situations and submission of articles for publication on and off campus. Prerequisites: 316 or permission of instructor. Offered winter semester of odd-numbered years. Three credits.

CJR 490 Internship. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. Credit is awarded only when the student, the faculty sponsor, and the work supervisor have completed evaluations of the internship. Offered every semester. Variable credit.

Communications (COM) Undergraduate Courses

COM 101 Concepts of Communication. An introduction to concepts and principles that are fundamental to understanding the dynamics and consequences of communication. School of Communications majors must take 101 within the first three semesters of declaring their major. Offered every semester. Three credits.

COM 201 Speech. Focuses on oral communication. The student will examine practical programs in speech preparation, delivery, informative and persuasive strategies, and listening and responding to messages of others. Most of what a student gains from this course will come not only from reading a text but also from in-class projects, simulation exercises, and skills training. Offered every semester. Three credits.

COM 202 Critical Interpretation. Practice in the art of reading and listening with understanding. Stresses interpretation as an activity common to the writer, speaker, reader, and listener. Fulfills Philosophy and Literature Foundation. Offered fall and winter semesters. Three credits.

COM 203 Argument and Analysis. Being able, in speaking or writing, to present arguments for a position and to analyze the arguments of others are skills that are basic to almost any human activity. In this course participants will practice the skills of argument and analysis in discussing the nature of argument itself. Offered fall semester. Three credits.

COM 209 Health Communication Systems. A general systems approach applied to understanding the interplay of individuals, institutions, audiences, purposes, and tasks relevant to the health communication professional. Prerequisite: Sophomore standing. Offered fall semester. Three credits.

COM 210 Nonverbal Communication. Introduction to sending and receiving nonverbal messages. Theory and skill development in thinking visually; in voice and articulation, body action, artifacts, time, space, and distance, and in listening. Emphasis on interpersonal, professional and cross-culture applications. Offered fall and winter semesters. Three credits.

COM 215 Story Making. How to create a story, scene, or image in your mind and render it in a variety of modes: oral story, written story, one-shot image told verbally, short script, previsualization for media, previsualization for dance, etc. Course includes discussion of the nature of narrative. Prerequisite: Fulfillment of composition requirement. Offered fall and winter semesters. Three credits.

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COM 220 Media Literacy. Introductory course in the critical study of media. Students develop the ability to access, analyze, evaluate, and critique mediated communication in a variety of forms. Particular attention to how images, sounds, and words are combined to create meaning, and the economic determinants of the media in the United States. Part of Society and the Media theme. Offered every semester. Three credits.

COM 225 Film Culture. Introductory course on film as a significant cultural form. Examines the formal elements through which films tell stories, and the kind of stories they tell in response to audience needs and desires. Focuses on how audience interaction shapes narrative filmmaking. Fulfills Arts Foundation. Offered every semester. Three credits.

COM 240 Survey of Electronic Media. Examines the development and current status of radio and television broadcasting. Topics covered include comparative broadcast systems, physical aspects, broadcast history, current trends in programming, and effects of broadcasting on our society. Offered fall semester. Three credits.

COM 301 Interpersonal Communication. An exploration of the nature of the communication process; analyzing language, nonverbal clues, environment, listening, and communication ethics. The course will be taught through practice in speaking, game-playing, discussion, and research. Offered spring/summer semester. Three credits.

COM 302 Small Group Communication. The study of the committee, task force, panel, and class. Weekly practice in decision making, conflict resolution, and socialization through class discussion groups. Offered on sufficient demand. Three credits.

COM 303 Debate. Instruction in techniques of argumentation and debate. Research methodology, logical analysis and argumentation, rhetorical strategies, technique of public presentation. Intercollegiate competition will *not* be a part of this class. Prerequisite: 201. Offered on sufficient demand. Three credits.

COM 348 Film Theories. Examines a selection of major theories concerning sources of meaning and power in film and television. Prerequisite: Junior standing. Offered every semester. Three credits.

COM 371 Media and Society. Examines the communications environment of societies and current issues affecting media. May be repeated for credit when content differs. Offered every semester. Three credits.

COM 372 Global Communications. A global focus on the relationship between media and society. The nature of global media in a world community. Varieties of media technologies, contents, and effects. How media encourage cross-cultural unity, or increase tensions within and between nations. Part of Society and the Media theme. Offered every fall. Three credits.

COM 373 Women and Minorities in Film and Television. An examination of American film and television from the perspective of those social groups whose participation in the industry has been restricted both in front of and behind the camera. Offered every other year. Three credits.

COM 375 Communication Research. Examination of empirical methodologies used in the evaluation of audiences, media, and products. Special attention given to the integration of empirically derived information in the communication process. Prerequisite: SS 300 or MKT 352. Offered fall and winter semesters. Three credits.

COM 380 Special Topics. A study of special topics not regularly covered in the curriculum. Expectations of the student in this course approximate those in other 300-level courses. Prerequisite: Sophomore standing. Three credits. May be repeated for credit when content varies. Offered on sufficient demand.

COM 399 Independent Study. An experience of an essentially scholarly and/or creative nature undertaken by a student under the supervision of one or more faculty members. Initiated by the student who has a special interest in a subject that is not available in the current curriculum. The student and the faculty sponsor agree on the scope of the study, its components, and methods of evaluation. Offered every semester. Variable credit.

COM 410 Senior Seminar in Health Communication. This course serves as a bridge between the student's academic and professional careers. The course helps students synthesize their communication education into a view of the dominant themes, issues and trends of the health communication field. Prerequisites: 209; senior standing. Offered winter semester. Three credits.

COM 415 Advanced Writers' Studio. A workshop for advanced students in journalism, creative writing, writing for media, and other writing areas who are writing on their own

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and want to present their writing to a group for constructive criticism. Offered on sufficient demand. Three credits.

COM 438 Communication Ethics. An upper-division course for the study of communications ethics. Students explore how language and innocence are mutually exclusive, examine how rhetoric, ideology, and information bear upon social and personal evil, and consider ethics issues relating specifically to communicative media. Focus is directed to the assessment and development of ethical sense-making. Part of Ethics theme. Offered winter semester. Three credits.

COM 490 Internship. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. Credit is awarded only when the student, the faculty sponsor, and the work supervisor have completed evaluations of the internship. Offered every semester. Variable credit.

COM 495 Theories of Communication (Capstone). A critical survey of major theories of human communication. Analysis and application of concepts from representative primary source statements, to understand what they say, presuppose, and imply about the nature of communication. Prerequisites: Senior standing; School of Communications major. Three credits. Offered every semester.

COM 498 Senior Thesis/Project. The senior thesis/project demonstrates depth and sophistication in the major. Offered every fall and winter semester, but *not* necessarily in the summer. Variable credit.

Communications (COM) Graduate Courses

COM 600 Systems Theory and Communication. An advanced theory class that takes a systems theory approach to understanding human communication and professional communication problems and issues. Prerequisites: COM 495, SS 300, STA 215, each with a grade of B or better. Three credits.

COM 610 Secondary Information and Analysis. Examines available sources of information, how they are accessed, and how to interpret and analyze findings. Attention is also given to data retrieval, storage and analysis, creating files analysis of trends, and aggregating and collapsing information. Prerequisite: 600. Three credits.

COM 620 Empirical Methods in Communication. The primary approaches to communication research with special emphasis on content analysis, survey research, focus groups, discourse analysis, projective techniques, sampling techniques, and proposal and report writing. Prerequisite: 600. Three credits.

COM 634 Ethics in Professional Communication. An examination of ethical issues and problems in professional communication. Special attention is given to understanding the connections between the communication industry and society, government, economics, and the law. Prerequisite: 600. Three credits.

COM 641 Emerging Telecommunication Technologies. An analysis of the impacts of a variety of new telecommunication technologies on business and industry, with particular emphasis on the use of these technologies to increase efficiency and productivity. Technologies considered in some detail include cable television, microcomputers, teleconferencing, and fiber optics. Prerequisite: Admission to a GVSU master's program. Three credits.

COM 642 Communication Law. An examination of the law as it relates to communication. An appraisal of current thinking in communication law and future trends. Prerequisite: Admission to a GVSU master's program. Three credits.

COM 643 Small Group Communication and Leadership. Examines the life cycle and communication structure of the problem-solving group or task force. Emphasis on the emergence of roles and leadership as a result of the communication within the group. Also, communicative and behavioral patterns associated with leadership. Prerequisite: 600, BUS 631. Three credits.

COM 644 Network Analysis. Research in complex organizational settings focusing on communication interrelationships and problems. Prerequisite: 650. Three credits.

COM 660 Communication Management and Cases. The conceptualization of communication problems, definition of terms, determination of information needs, conceptualization/operationalization of primary research where needed, and implementation of findings into the decision-making process. Prerequisites: 620, BUS 631. Three credits.

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COM 680 Special Topics. A study of special topics not regularly covered in the curriculum. Prerequisite: 600. Three credits.

COM 695 Master's Thesis/Project. Master's thesis or project completed in consultation with the student's advisor and committee. Prerequisite: 660. Three credits.

COM 699 Independent Study. Initiated by the student who has a special interest in a subject not available in the current curriculum. The student and the faculty sponsor agree on the scope of the study, its components, and methods of evaluation. Prerequisites: 600 and 610. Three credits.

Photography (CPH)

CPH 171 Photography I. An introductory course in the use of the still camera and in the essentials of black-and-white photography. Emphasis on the basic aesthetics and techniques that underlie photographic communication. 35mm camera with manual operation required. Students register for one lab section in addition to lecture. Offered every semester. Four credits.

CPH 172 Photography II. The aesthetic and technical concepts beyond basic photography. Emphasis on fine-tuning black-and-white negative and printing methods, including the zone system. Students register for one lab section in addition to lecture. Prerequisite: 171. Offered every semester. Four credits.

CPH 175 Understanding Still Photography. A course for those who want to be able to use still photography at an introductory level but do not require darkroom expertise. Covers camera operation, composition, aesthetics, and visual communication. 35mm camera required. Does not count toward the photography major. Offered fall semester. Three credits.

CPH 273 Classic 4 x 5 Photography. Emphasis upon the use and application of the large format camera, the zone system of previsualization and exposure/development control, and the production of the classic black-and-white print. Subject areas represent the classic themes drawn from the history of photography. Prerequisite: 172 or permission of instructor. Offered fall and winter semesters. Three credits.

CPH 278 Color-Positive Photography. Introduction to color theory as it applies to light, exposure and processing of color transparency films, and printing on Cibachrome materials. Prerequisite: 172 or permission of instructor. Offered winter semester. Four credits.

CPH 279 Color Printing. Introduction to color theory, negative-to-positive chromogenic printing, and expressive use of color in photography. Prerequisites: 172 or permission of instructor. Offered fall semester. Four credits.

CPH 280 Special Topics. A study of topics not regularly covered in the curriculum. May be repeated for credit when topic varies. Prerequisite: Sophomore standing or permission of instructor. One to three credits.

CPH 371 Experimental Black and White Photography. An advanced production course that investigates experimental and nontraditional applications of black-and-white imaging materials and processes. Historical and contemporary experimental work will be examined. Emphasis is on the expressive and visual significance of experimentally generated imagery. Prerequisite: 273. Offered winter semester. Three credits.

CPH 372 Computer Photo I. Introduction to the use of computers in photography with emphasis on digital image processing. Students will gain experience with hardware and software used to access, manipulate, and output photographs for use in display, print, and the digital environment. Prerequisites: ART 150 and CPH 175, or 278 or 279 or CFV 226, or permission of instructor. Offered every semester. Three credits.

CPH 373 Computer Photo II. An exploration of the history, contemporary trends, and future possibilities of digital imaging processes. Includes an examination of visual communication within the digital environment. Student readings and discussions will be augmented with digital imaging projects. Prerequisite: 372 or permission of instructor. Offered winter semester. Three credits.

CPH 374 Color Photography. An advanced course emphasizing various approaches to color photographic image making. Areas of investigation include color theory, color and perception, color and light, color strategies, and color as image, as well as contemporary trends in color photography. Prerequisite: 279. Offered winter semester. Three credits.

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CPH 375 Studio Photography. Creation of studio still-lives, artificial studio lighting, and principles of studio portraiture. All work done in large format, in black-and-white and color. Prerequisite: 273. Offered winter semester. Three credits.

CPH 376 Photo History. A survey of the origins and developmental phases of photography. Technical innovations will be examined, but emphasis will be on changing climates of aesthetic intent, philosophical rationale, and visual experimentation. Prerequisites: 171 and junior standing. Offered winter semester. Three credits.

CPH 377 The Social Eye. Explores the photographic tradition of the social documentary. Practical emphasis on black-and-white image making depicting people: their activities, relationships, conditions. (Color slides optional with permission of instructor.) Photo essays will be produced. Lab to be arranged. Prerequisite: 273. Offered fall semester. Four credits.

CPH 380 Advanced Problems in Photography. An intensive investigation and a sustained image-making activity in one area of photographic practice. Examines both historical and contemporary approaches, as well as aesthetic and cultural attitudes that have informed them. Students will produce various solutions within the course theme. Prerequisite: 273. Offered fall semester. Three credits.

CPH 399 Independent Study. An experience of an essentially scholarly and/or creative nature undertaken by a student under the supervision of one or more faculty members. Initiated by the student who has a special interest in a subject that is not available in the current curriculum. The student and the faculty sponsor agree on the scope of the study, its components and methods of evaluation. Offered every semester. Variable credit.

CPH 480 Special Topics. A study of advanced topics not regularly covered in the curriculum. May be repeated for credit when topic varies. Prerequisite: Senior standing or permission of instructor. One to three credits.

CPH 490 Internship. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. Credit is awarded only when the student, the faculty sponsor and the work supervisor have completed evaluations of the internship. Offered every semester. Variable credit.

CPH 498 Senior Thesis/Project. The senior thesis/project demonstrates depth and sophistication in the major. Prerequisite: 376 with a grade of C or better. Offered fall and winter semesters, but *not necessarily in the summer*. Variable credit.

Theatre (CTH)

CTH 101 Introduction to Theatre. Basic course in theatre. Emphasis upon contemporary stage practice and theory, not theatre history. Students will experience a wide variety of live, filmed, and taped performances, analyze their reactions to them, and present two reports on them. Fulfills Arts Foundation. Offered every semester. Three credits.

CTH 107 Oral Interpretation. Performance and theory in the art of reading literature aloud. Criticism by instructor and peers in readings from prose, drama, and poetry. Skills in cutting and programming for performance. Work on voice and diction. Offered on sufficient demand. Three credits.

CTH 151 Acting I: Improvisation. An introduction to the process of acting through improvisation, freeing the natural performer by means of physical, intellectual, emotional, and intuitive exercises and games. Extensive experiential work and subsequent evaluation. Offered fall semester. Three credits.

CTH 161 Theatre Production. An introduction to the collaborative nature of the theatrical process, particularly the relationships between the performers, designers, and directors. The organization and functions of design, technology, materials, people, space, time, and money in a theatre production. Procedures in different theatrical organizations and situations will be examined. Students will participate in the production activities of the college. Offered fall semester. Two credits.

CTH 162 Play Analysis. Develops abilities to read and interpret play texts. Students examine conventions of dramatic art as they learn to approach a text both verbally and nonverbally. Frequent short writing assignments and several video recordings supplement class lectures and discussions. Required attendance at two university play performances. Offered winter semester of odd-numbered years. Three credits.

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CTH 198 Rehearsal and Performance. Participation as a performer (acting, dance) in the college's production program. Prerequisite: Permission of instructor. May be repeated for credit. Offered every semester. One to three credits.

CTH 207 Readers' Theatre. Work in directing and acting in a readers' theatre production. Skills in selecting and cutting literature will be developed when students write scripts for performance of a final project. Some critical assignments included. Offered on sufficient demand. Three credits.

CTH 250 Stage Management. An introduction to the field of stage management and live performances. Class lectures and discussions are augmented by work on projects and actual performance. Offered winter, even-numbered years. Two credits.

CTH 252 Acting II: Characterization. Methods of developing a character for the stage. Free exercises, improvisations, analysis, and scene (or project) presentations. Emphasis on the total integration of all the actor's resources. Prerequisite: 151. Offered winter semester. Three credits.

CTH 261 Stagecraft I. A study of the basic techniques for constructing and painting stage scenery and simple stage properties. Additional emphasis on the principle of stage lighting. Prerequisite: 161 or permission of instructor. Offered on sufficient demand. Three credits.

CTH 262 Costume Construction. A laboratory course in beginning sewing techniques, including instruction in basic pattern drafting and draping for costumes (depending on the students' level of sewing experience). Final project includes the construction of a complete garment. Offered on sufficient demand. Three credits.

CTH 263 Makeup. A laboratory course dealing with the principles of makeup application and design. Demonstration and practice in makeup techniques and in the use of makeup equipment and materials, including crepe hair, prosthetics, and masks. Course taught from the performer's point of view. Two credits. Offered on sufficient demand.

CTH 298 Applied Theatre Practice. Participation in a technical or design capacity (scenery, lighting, costumes, stage-management, etc.) in the college's production program. Prerequisite: Permission of instructor. May be repeated for credit. Offered every semester. One to three credits.

CTH 300 Storytelling. Exploration of stories and their possible uses through the oral tradition. Students will locate, create, and share stories; explore stories as a reflection of culture; and engage in practical activities that will provide a plethora of ideas for understanding and using storytelling in multiple aspects of one's life. Offered fall of odd-numbered years. Three credits.

CTH 356 Acting III. An introduction to the special techniques of performing for film and video cameras, including pre-studio rehearsals, studio rehearsal, and the actual film or videotaping. Prerequisite: Two courses in acting. Two credits. Offered on sufficient demand.

CTH 365 Directing I. Study and practical application of the fundamental concepts of play directing: play selection, script analysis and interpretation, artistic choices, articulation of ideas, communication with actors, and critique. Rehearsal and presentation of realistic scenes. Prerequisites: 151, 161, 261 or by permission of instructor. Offered winter semester even-numbered years. Three credits.

CTH 366 Theatre for Children. An orientation to the function of dramatics in education. Workshop exercises combined with background studies and theory. Skills for conducting creative dramatic activities with elementary and secondary students, exploring theatre games and improvisations with ensemble. Offered winter semester. Three credits.

CTH 367 Scenography. An introduction to the basic theoretical and artistic concepts and procedures for designing a live performance. Physical scenery, lighting, projections, costumes, and makeup are considered as integrated parts of a unified design. Individual projects exploring varied design contexts. Students will participate in the production activities of the college. Prerequisite: 161 and 261 or permission of instructor. Offered winter semester of odd-numbered years. Three credits.

CTH 368 Lighting Design. An exploration of the theory and techniques of lighting live performances. The basics of theatre electrics, including instrumentation, color, control systems, and paperwork techniques. Principles of lighting design, exploration of the qualities of light, and their manipulation in theatrical situations. Prerequisite: 161. Offered fall, odd-numbered years. Three credits.

Computer Science and Information Systems

CTH 369 Costume Design. Study of the principles of costume design, including figure drawing and rendering techniques. An introduction to the history of costume. Final project will include the design of costumes for an assigned play. Prerequisite: 161 and 262 or permission of instructor. Offered fall semester of odd-numbered years. Three credits.

CTH 371 Theatre History. An examination of the place of theatre in the societies of major historical periods between 600 B.C. and 1800 A.D. Emphasis will be on Western culture, but course material will also include non-European drama. Study of representative play scripts augmented by film and video presentations and by readings in anthropology, cultural history, and criticism. Prerequisite: fulfillment of the Freshman Writing Requirement. Offered fall, odd-numbered years. Three credits.

CTH 372 The Modern Theatre. An examination of dramatic literature and theatrical performance since 1880. Emphasis on the various stylistic approaches to production in Europe and America, including those of Stanislavski, expressionism, epic theatre, absurdism, the new stagecraft, and others. Offered fall, even-numbered years. Three credits.

CTH 373 Global Arts Performance and Management. Surveys contemporary international trends in intercultural performance and identifying the boundaries of an emerging world culture. Includes an overseas field study service-learning experience at the end of the semester. Prerequisite: Permission of instructor. Offered spring semester. Three credits. Part of Global Integration and Fragmentation Theme.

CTH 380 Special Topics. A study of special topics not regularly covered in the curriculum. Expectations of the student in this course approximate those in other 300-level courses. Prerequisites: Sophomore standing. Three credits. May be repeated for credit when content varies. Offered on sufficient demand.

CTH 399 Independent Reading. Directed readings or research work in theatre literature or theatrical practice. Prerequisite: Junior or senior standing and permission of the instructor. Offered every semester. One to three credits.

CTH 454 Acting IV. Scene and monologue work with emphasis on auditioning. Practice with prepared and unprepared material. Training in selecting, editing, rehearsing, resume writing, performing. Offered winter semester in odd-numbered years. Three credits.

CTH 465 Directing II Includes study of directing for proscenium, thrust, and the round. Special attention paid to directing plays from other periods, children's plays, musicals, and placing plays in a transferred period. Students will direct a one-act play for public performance. Prerequisite: 365 or by permission of instructor. Offered on sufficient demand. Three credits.

CTH 479 Classical Theatre Workshop. Rehearsal and public performance of a full-length play selected from the repertory of ancient Greek and Roman drama. Crossing of CLA 479. Students may not receive credit for both classes. Prerequisites: GRK or LAT 201 or by permission of instructor. Offered winter semester in even-numbered years. Three credits.

CTH 490 Internship. Practical work and study in the area of acting, arts management, or technical production with a professional regional theatre. Prerequisite: Senior standing, selected coursework in background to the specific area of the internship, and permission of theatre chairman. Offered every semester. Variable credit.

CTH 499 Independent Research. Scholarly library project and critical essay in some area of theatre. Seniors majoring in theatre and dance. Offered every semester. One to three credits.

Computer Science and Information Systems (CS)

Chair: Leidig. Professors: Jorgensen, Klein; Associate Professors: Ferguson, Grisson, Johnson, Kotman, Leidig, Tao; Assistant Professors: Adams, Levin, Wolffe; Visiting Instructors: Grove, Hornik, Lange, Peterman, Scripps.

Degrees offered: B.S., B.A. in computer science, with an optional emphasis in secondary (K-12) certification; B.S., B.A. in information systems; M.S. in computer information systems. Minors offered: computer science, computer science for teacher certification, information systems, microcomputer systems, computer engineering, and health care information systems.

Computer Science and Information Systems

Career Opportunities

Is the field of computers for you? You'll need technical knowledge and skills as well as the ability to concentrate on your work and to think logically. You should enjoy working with ideas and solving problems. If you do, you will find that a degree in this field can open the door to a rewarding career in the computer industry.

Job opportunities in the computer industry are expected to grow rapidly, particularly as computers are used to solve problems in ever-expanding areas, including accounting and business management services and research and development. In short, the employment prospects for college graduates with majors or minors in computer science are very bright.

Positions in the computer field include those in computer programming, systems analysis, systems programming, applications programming, software engineering, telecommunications, computer operations, teaching, and a variety of positions in computer sales, design, manufacturing, health care, and customer service.

Computer Science and Information Systems Advisory Board

The Computer Science and Information Systems Advisory Board (CSISAB) is composed of the department chairperson, the CSISAB Coordinator, and at least 12 leading computer science and information systems experts in West Michigan. The Board meets twice each year and advises the department on curriculum development and continuing education. It serves as an important contact between the department and the computing community.

Admission

Admission to major standing in Computer Science or Information Systems is competitive and requires a secondary application. Applicants must meet the following criteria:

1. Overall GPA of 2.5 or above in all GVSU coursework.
2. Completion of each course in the technical core with a grade of C or above (C- is not sufficient).
3. GPA of 2.5 or above in the technical core.

Technical core GPA is calculated on no more than one repeat per course. Achievement of the minimum requirements does not guarantee admission to the major. The department will also consider internship availability and the applicant's suitability for internships before granting admission. Transfer students must complete at least six hours of CSIS coursework before applying, but should consult with a CSIS advisor before scheduling their first semester.

The technical core includes CS 162 and 262; MTH 225; STA 215 or 312; WRT 350 or COM 201. Completing the core courses requires programming, analytical reasoning, and communication skills. These skills are important to excel in the computing field.

Requirements for a Computer Science Major

Students who wish to major in computer science must complete the following:

1. University degree requirements as identified in the General Academic Regulations section of the catalog.

Computer Science and Information Systems

2. Computer Science Major (not for teacher certification).

All computer science majors not seeking teacher certification must complete the following 45–48 credits of required computer science classes and one three-credit elective with a minimum 2.0 GPA.

Required Computer Science Courses:

CS 162 Computer Science I
CS 262 Computer Science II
CS 350 Systems Concepts
CS 351 Computer Organization and Assembly Language
CS 353 Database
CS 361 C and UNIX
CS 362 Data Structures and Algorithms
CS 451 Computer Architecture
CS 452 Operating Systems Concepts
CS 457 Data Communications
CS 461 Compiler Design and Construction or CS 465 Automata and Theory of Computation
CS 462 Structure of Programming Languages
CS 467 Computer Science Project*
CS 490 Internship

Computer Science Elective Courses. All computer science majors must select one elective from the following:

CS 365 Artificial Intelligence
CS 367 Computer Graphics

3. Cognate Courses.

All computer science majors not seeking teacher certification must complete the following 21 credits of cognate courses:

WRT 350 Writing in the Workplace or COM 201 Speech
MTH 201 Calculus and Analytic Geometry I**
MTH 202 Calculus and Analytic Geometry II**
MTH 225 Discrete Structures: Computer Science 1
MTH 325 Discrete Structures: Computer Science 2
STA 215 Introductory Applied Statistics** or STA 312 Probability and Statistics**

4. Computer Science Major for Secondary (K-12) Certification

Computer science majors seeking teacher certification must complete the following 34 credits of computer science classes and 12 credits of cognate courses. Students are required to assist in a Computer Laboratory at Grand Valley as partial fulfillment of their field experience requirement. A minimum GPA of 2.8 in the computer science courses is required for recommendation for teacher certification.

Required Computer Science Courses:

CS 162 Computer Science I
CS 231 Problem Solving Using Spreadsheets
CS 237 Microcomputer Communications
CS 262 Computer Science II

*capstone course.

**Completion of MTH 201, MTH 202, and either STA 215 or 312 satisfies the B.S. degree cognate for computer science majors. Students completing a B.A. degree must complete a third semester proficiency in a foreign language.

Computer Science and Information Systems

CS 307 Computer Science Teacher Assisting Seminar
CS 309 Teaching Computer Science
CS 350 Systems Concepts
CS 351 Computer Organization and Assembly Language
CS 353 Database
CS 362 Data Structures and Algorithms
CS 467 Computer Science Project*

5. Cognate Courses:

All computer science majors seeking teacher certification must complete the following 12 credits of cognate courses:

WRT 350 Writing in the Workplace or COM 201 Speech
MTH 225 Discrete Structures: Computer Science 1**
MTH 325 Discrete Structures: Computer Science 2**
STA 215 Introductory Applied Statistics** or STA 312 Probability and Statistics**

Requirements for an Information Systems Major

Students who wish to major in information systems must complete the following:

1. University degree requirements as identified in the General Academic Regulations section of the catalog.
2. 44–47 semester credit hours from the following courses, with a minimum 2.0 GPA:

CS 162 Computer Science I
CS 231 Problem Solving Using Spreadsheets or CS 238 Desktop Media
CS 253 COBOL
CS 262 Computer Science II
CS 337 Network System Management
CS 350 Systems Concepts
CS 351 Computer Organization and Assembly Language
CS 353 Database
CS 437 Distributed Computing
CS 443 Software Development Tools
CS 450 Advanced Application Development
CS 460 Management of Information Systems*
CS 463 Information Systems Project
CS 490 Internship

3. Cognate Courses.

All information systems majors must complete the following 24 credits of cognate courses:

ACC 212 Principles of Financial Accounting
ACC 213 Principles of Managerial Accounting
COM 201 Speech
WRT 350 Writing in the Workplace
MGT 331 Concepts of Management
MTH 225 Discrete Structures: Computer Science 1*** or MTH 227 Linear Algebra I***
STA 215 Introductory Applied Statistics*** or STA 312 Probability and Statistics***
STA 216 Intermediate Applied Statistics***

*capstone course.

**Completion of MTH 225, MTH 325, and either STA 215 or 312 satisfies the B.S. degree cognates for computer science majors (secondary certification emphasis).

***Completion of either MTH 225 or 227, and either STA 215 or 312, and STA 216 satisfies the B.S. degree cognate for information systems majors. Students completing a B.A. degree must complete a third-semester proficiency in a foreign language.

Requirements for Computer Science and Information Systems Minors

The following minors require a minimum GPA of 2.0 to be approved.

1. Computer Science (not for teacher certification).

- CS 162 Computer Science I
- CS 262 Computer Science II
- CS 350 Systems Concepts
- CS 351 Computer Organization and Assembly Language
- CS 353 Database, or CS 361 C and UNIX, or CS 457 Data Communications
- CS 362 Data Structures and Algorithms
- MTH 225 Discrete Structures: Computer Science 1
- MTH 325 Discrete Structures: Computer Science 2

2. Computer Science (for teacher certification)

A minimum GPA of 2.8 in this minor is required for recommendation for teacher certification.

- CS 162 Computer Science I
- CS 231 Problem Solving Using Spreadsheets
- CS 233 Microcomputer Database Management
- CS 237 Microcomputer Communications
- CS 262 Computer Science II
- CS 309 Teaching Computer Science
- CS 351 Computer Organization and Assembly Language
- MTH 225 Discrete Structures: Computer Science 1

3. Microcomputer Systems (not for certification).

A minor in microcomputer systems must complete at least 24 hours as follows:

All of the following (15 hours):

- CS 150 Introduction to Computing
- CS 160 Programming with Visual Basic
- CS 231 Problem Solving Using Spreadsheets
- CS 233 Microcomputer Database Management
- CS 339 Microcomputer Applications Project

Three elective courses selected from the following (9–10 hours):

- CS 162 Computer Science I
- CS 230 Microcomputer Operating Systems
- CS 235 Expert Systems
- CS 237 Microcomputer Communications
- CS 238 Desktop Media
- CS 331 Advanced Spreadsheet Development

With prior departmental approval, one course in another discipline that extensively uses microcomputers and that has a prerequisite of CS 150.

4. Computer Engineering (not for teacher certification).

- CS 162 Computer Science I
- CS 262 Computer Science II
- CS 351 Computer Organization and Assembly Language
- EGR 214 Circuit Analysis I
- EGR 226 Introduction to Digital Systems
- EGR 326 Advanced Digital Systems
- EGR 424 Design of Microcontroller Applications

One elective course selected from the following (three-four credit hours).

Computer Science and Information Systems

CS 362 Data Structures and Algorithms
CS 452 Operating Systems Concepts
CS 457 Data Communications

5. Information Systems (not for teacher certification).

CS 162 Computer Science I
CS 253 COBOL
CS 262 Computer Science II
CS 337 Network System Management
CS 350 Systems Concepts
CS 353 Database
MTH 225 Discrete Structures: Computer Science 1

6. Health Care Information Systems Minor (not for teacher certification).

HS 111 Medical Terminology
HS 220 Health Care Delivery
HS 222 Introduction to Public Health
HS 340 Health Care Management
SOC 356 Sociology of Health Care
CS 160 Programming with Visual Basic
or CS 162 Computer Science I
CS 231 Problem Solving Using Spreadsheets
CS 233 Microcomputer Database Management
or CS 353 Database
CS 237 Microcomputer Communications
or CS 337 Network System Management
or CS 457 Data Communications
CS 340 Health Care Information Systems

Internship Program

This program enables juniors and seniors with jobs involving computer science to earn credits for academic work related to the technical skills required in performing the job.

Sample Curriculum

These options assume students will complete the technical core and general education courses with the help of their advisor and apply for secondary admission during the winter semester of their first year. The following course sequence also assumes a strong mathematics background for the entering student. If mathematics deficiencies exist, they should be the student's top priority.

Computer Science

Information Systems

First Year

CS 162 Computer Science I
CS 262 Computer Science II
MTH 225 Discrete Structures: Computer Science 1
STA 215 Introductory Applied Statistics
or STA 312 Probability and Statistics
COM 201 Speech or WRT 350 Writing in the Workplace
General education courses

CS 162 Computer Science I
CS 262 Computer Science II
MTH 225 Discrete Structures: Computer Science I
STA 215 Introductory Applied Statistics
or STA 312 Probability and Statistics
ACC 212 Principles of Financial Accounting
COM 201 Speech
General education courses

Computer Science and Information Systems

Second Year

CS 350 Systems Concepts	CS 231 Problem Solving Using Spreadsheets, or CS 238 Desktop Media
CS 351 Computer Organization and Assembly Language	CS 253 COBOL
CS 353 Database	CS 353 Database
CS 361 C and UNIX	ACC 213 Principles of Managerial Accounting
CS 362 Data Structures and Algorithms	STA 216 Intermediate Applied Statistics
MTH 201 Calculus and Analytic Geometry I	General education courses
MTH 325 Discrete Structures: Computer Science 2	
General education courses	

Third Year

CS 451 Computer Architecture	CS 337 Network System Management
CS 457 Data Communications	CS 350 Systems Concepts
CS 461 Compiler Design and Construction or CS 465 Automata and Theory of Computation	CS 351 Computer Organization and Assembly Language
Computer science elective	CS 443 Software Development Tools
MTH 202 Calculus and Analytic Geometry II	WRT 350 Writing in the Workplace
General education courses	MGT 331 Concepts of Management
	General education courses

Fourth Year

CS 452 Operating Systems Concepts	CS 437 Distributed Computing
CS 462 Structure of Programming Languages	CS 450 Advanced Application Development
CS 467 Computer Science Project	CS 460 Management of Information Systems
CS 490 Internship	CS 463 Information Systems Project
General education courses	CS 490 Internship
	General education courses

Master of Science—Computer Information Systems

The Master of Science degree in Computer Information Systems is offered in the Department of Computer Science and Information Systems. The primary purpose of the program is to make educational opportunities available to the professional computing community in West Michigan. It is intended for computer professionals who are already working in industry and are using computer and information systems.

Admission

In addition to the requirements listed in the Graduate Admission section, candidates must satisfy all the following:

1. Grade point average of 3.0 (B) from all undergraduate course work or a satisfactory score on the GRE or the GMAT test.
2. Submit acceptable recommendations from at least two individuals attesting to the likelihood of the candidate's successful completion of the program.
3. Candidates must have a base of underlying knowledge relevant to graduate study in the computer field. This can be demonstrated by previous academic study or work experience. A consultation with a faculty member may be necessary to verify appropriateness of work experience as a substitute for academic preparation. In particular, the material covered in CS 500 forms a

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foundation for study in the program. A student not having this knowledge will be required to take this course.

Certificate Program Requirements

Each of the content areas in the master of science degree program constitutes a certificate program. A certificate in each of the areas of Software Engineering, Object-oriented Technology, Information Systems Management, Distributed Systems, and Database Management is awarded to a student who completes a content area. The last two courses in the content area must be completed at Grand Valley State University.

Admission criteria for a certificate program are identical to admission criteria for the master's degree program. Certificate candidates enroll in the standard master's degree program courses, with grading criteria being identical. Should a certificate candidate decide to change to the master's degree program, all coursework taken toward the certificate will apply to his or her master's degree program.

Degree Requirements

All candidates for the degree must complete a total of 33 credits, as indicated below:

- 3 CS 500 Fundamentals of Computer Science*
- 18 all courses in two content areas
- 9 three elective courses
- 3 capstone course, project course, or thesis course

Each candidate must complete either the capstone course, a project course, or the thesis option.

Content Areas

Five content areas are designed to provide sustained coverage of topics essential to the regional computing community. Each content area consists of three courses that are taken sequentially.

Software Engineering

CS 611 Introduction to Software Engineering
CS 612 Requirements Specification
CS 613 Software Testing

Object-oriented Technology

CS 621 Object-oriented Programming
CS 622 Software Design Methodologies
CS 623 Graphical User Interface Design

Information Systems Management

CS 641 Management of Software Development
CS 642 Software Project Management
CS 643 Information Systems Policy

Distributed Computing

CS 654 Computer Networking

*Students not required to take this course must take an additional elective.

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CS 656 Operating Systems
CS 658 Distributed Computing

Database Management

CS 673 Principles of Database Design
CS 676 Database Management Systems
CS 679 Advances in Database Management Systems

Elective Courses

CS 633 Microcomputer Database Management
CS 672 Computer Systems Architecture
CS 674 Modeling and Decision Systems
CS 675 Compiler Construction
CS 680 Seminar in Computer Information Systems
CS 685 Computing Workshop for Educators I
CS 686 Computing Workshop for Educators II
CS 699 Directed Readings in Computer Science
Courses in the two content areas not selected by the student.

Capstone Course

CS 692. The capstone course may be taken after all courses in two content areas have been completed. The capstone course topic(s) will vary each semester. Contact the department one semester before beginning CS 692.

Project Course

CS 693. Contact the department for detailed information one semester before beginning the project course.

Thesis Option

CS 690 Master's Thesis Research
CS 695 Master's Thesis

The thesis option includes writing, presenting, and defending a master's thesis. Contact the department for detailed information one semester before beginning CS 690. The two-course sequence for this option takes the place of either the project or the capstone course and one elective.

Courses of Instruction

To fulfill a prerequisite, a student should obtain a grade of C or higher in the prerequisite course. Any prerequisite may be waived by consent of the instructor. Numbers in parentheses at the end of the course description indicate the number of lecture, discussion, and laboratory hours per week.

CS 150 Introduction to Computing. Basic principles of computing, including study of the major components of a computer system. Introduction to software packages such as word processors, spreadsheets, databases, and languages. (3-0-0). Three credits. Offered fall and winter semesters.

CS 160 Programming with Visual Basic. Emphasis on problem solving, algorithms, structure, style, and object-oriented/event-driven programming. Includes subroutines, loops, arrays, debugging files, graphics, and graphical user interface. Fulfills Mathematical Sciences Foundation. Corequisite: MTH 110. (3-0-0). Three credits. Offered fall and winter semesters.

CS 162 Computer Science I. Introduction to programming and computer science through lab and lecture. Simple and structured data types and program control structures. Problem analysis, algorithm design, and computer implementation using a high-level language. Prerequisite: MTH 110. (3-0-2). Four credits. Offered fall and winter semesters.

Computer Science and Information Systems

CS 180 Special Topics. Readings, lectures, discussions, or labs (or any combination) in specific computer science topics at an introductory or elementary level. Prerequisite: Permission of the instructor. One to four credits. Offered on demand.

CS 230 Microcomputer Operating Systems. An introduction to hardware and operating systems for microcomputers. Topics include: hardware components, standards, compatibility problems, the DOS operating system, hard disk management, system configuration, and DOS batch files. Graphic User Interfaces are examined using the Apple Macintosh operating system and Windows. OS/2 and UNIX are also studied. Prerequisite: CS 150, 160, or 162. (3-0-0). Three credits. Offered winter semester.

CS 231 Problem Solving Using Spreadsheets. An introduction to spreadsheets such as Lotus 1-2-3 and their use as a tool in problem solving and applications. Prerequisites: CS 150, 160, or 162; and MTH 110 or 115. (3-0-0). Three credits. Offered fall and winter semesters.

CS 233 Microcomputer Database Management. Study of database management on microcomputers. Relational model data definition and manipulation. Database design. Functions of a database management system (DBMS). Database administration. Application generation. Students will write projects using a major microcomputer DBMS such as dBASE or R:base. Prerequisite: CS 150, 160, or 162. (3-0-0). Three credits. Offered fall semester.

CS 235 Expert Systems. Study of the technology of expert systems. Knowledge representation and reasoning. The knowledge base. The inference engine. The user interface. Development and integration of expert systems. Future of expert systems. Prerequisite: CS 150, 160, or 162. (3-0-0). Three credits. Offered fall semester of even-numbered years.

CS 237 Microcomputer Communications. An introduction to data communications and networking on personal computers. Topics will include: communications basics, data and facsimile modems, communications software packages, on-line information services, computer conferencing, bulletin board services, local area networks, and requirements analysis. Laboratory projects will be used to complement the lectures. Prerequisite: CS 150, 160, or 162. (2-0-2). Three credits. Offered winter semester.

CS 238 Desktop Media. Study of the technology of desktop media, including digital graphics editing, Internet publishing, and digital video. Examines advanced features of the hardware and software requirements of those media. Applies the technology to the student's field of study through individual projects. Prerequisite: CS 150, 160, or 162. (3-0-0). Three credits. Offered fall semester.

CS 253 COBOL. Introduction to the COBOL language; file management techniques; main-frame computer processing; program design, testing and implementation methodology with emphasis on structured programming. Topics include validation, reporting, file updating; tables; character manipulation; SORT and COPY statements; the Report Writer feature. Prerequisites: CS 162 and CS/IS major standing. (4-0-0). Four credits. Offered fall and winter semesters.

CS 262 Computer Science II. Programming methodology, design and analysis of algorithms, and an introduction to data structures. Examples from a wide range of computing applications will be discussed. Prerequisite: CS 162. Corequisite: MTH 225. (3-0-0). Three credits. Offered fall and winter semesters.

CS 280 Special Topics. Readings, lectures, discussions, or labs (or any combination) in specific computer science topics. Permission of instructor required. One to three credits. Offered on demand.

CS 307 Computer Science Teacher Assisting Seminar. Strategies for teaching computer science in junior and senior high school. Coordinated and taken concurrently with ED 331. Prerequisites: CS 262 and PSY 301. (3-0-0). Three credits. Offered fall semester.

CS 309 Teaching Computer Science. Emphasis on the use of the computer as an educational tool, including hardware and software selection, CAI, CMI, review of LOGO and BASIC. Discussion of social and personal issues, including legal, ethical, and economic concerns. Prerequisites: CS 205 and 262. (3-0-0). Three credits. Offered winter semester of even-numbered years.

CS 331 Advanced Spreadsheet Development. A high-level spreadsheet course for users of current versions of spreadsheet programs, who will be expected to create multi-sheet and multi-file professional spreadsheet applications. Students completing this course will be prepared to serve as in-house consultants on spreadsheet applications. Prerequisites: CS 231 and either 160 or 162. (3-0-0). Three credits. Offered fall semester.

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CS 337 Network System Management. Provides Information Systems majors with the knowledge and skills necessary to manage the sophisticated Local Area Networks available today. It approaches the subjects of network design, installation, and management from the corporate view of networking. Prerequisites: CS 162 and CS/IS major standing. (2-0-2). Three credits. Offered fall and winter semesters.

CS 339 Microcomputer Applications Project. Individual student project using the micro-computer laboratory facilities. Students will learn a systematic approach to developing a microcomputer application system using a programming language or a software package such as a spreadsheet, database management system, or expert system. Prerequisites: 231 and 233. (3-0-0). Three credits. Offered winter semester.

CS 340 Health Care Information Systems. Introduces principles of health care information systems. Course is taught so that individuals with various backgrounds can become familiar with computer applications in medicine and the fundamentals of medical decision making, artificial intelligence, and information retrieval. A major project serves to integrate components from the health and computer sciences. Prerequisites: CS 233, CS 237, and HS 340. (3-0-2). Four credits. Offered fall semester.

CS 350 Systems Concepts. Systems development life cycle from project request through project implementation and evaluation. Systems analysis and design concepts, tools and techniques are emphasized. Traditional and structured approaches. Project management. Prerequisites: CS 262 and CS/IS major standing. (3-0-0). Three credits. Offered fall and winter semesters.

CS 351 Computer Organization and Assembly Language. Overview of a computer's organization. Methods of data representation. Organization of an assembly language program. Instruction set: data movement, arithmetic, comparing and branching, and bit manipulation. Procedure calling sequences. Implementation of high-level language constructs. Interrupt processing. Prerequisites: CS 262 and CS/IS major standing. (3-0-0). Three credits. Offered fall and winter semesters.

CS 353 Database. History and functions of database management systems. Relational, object-oriented, network, and hierarchical models. Logical and physical database design. Query languages, application generators, data dictionaries, and client-server processing. Project experience in database design and development. Prerequisites: 262 and CS/IS major standing. (3-0-0). Three credits. Offered fall and winter semesters.

CS 361 C and UNIX. The C programming language is taught in the context of the UNIX operating system. Coverage: functions, variable scope, control structures, pointers, arrays, program organization, structures, standard C library, memory allocation, signals, inter-process communication, and UNIX system calls. UNIX utilities and software development tools are used throughout the course. Prerequisites: 262 and CS/IS major standing. (3-0-0). Three credits. Offered fall and winter semesters.

CS 362 Data Structures and Algorithms. Advanced data structures, including lists, trees, sets and graphs. Analysis of algorithms. Emphasis on abstract data types, their representations, and role as models in the development of computer algorithms. Prerequisites: CS 262, MTH 325, and CS/IS major standing. (3-0-0). Three credits. Offered fall semester.

CS 363 Introduction to Software Engineering. Models and techniques for the major phases of software development, with emphasis on requirements specification, design, testing, and software maintenance. Description of the roles of project management, quality assurance, and configuration management. Prerequisite: CS 262. (3-0-0). Three credits. Offered summer semester of odd-numbered years.

CS 365 Artificial Intelligence. Introduction to the concepts of artificial intelligence using the LISP programming language. Knowledge representation and problem solving applied to expert systems, natural language understanding, machine learning, and vision. Prerequisites: CS 262, and either STA 215 or STA 312, and CS/IS major standing. (3-0-0). Three credits. Offered winter of odd-numbered years.

CS 367 Computer Graphics. Principles of computer graphics. I/O devices. Basic graphic primitives and attributes. Transformations: translation, scaling, and rotation. World and screen coordinates, windows and viewports, clipping. Circle drawing. Graphics and text modes. Raster graphics. Filling algorithms. 3-D graphics. Hidden line/surface elimination. Prerequisites: CS 351, and either MTH 227 or both MTH 123 and MTH 225, and CS/IS major standing. (3-0-0). Three credits. Offered winter semester of odd-numbered years.

Computer Science and Information Systems

CS 380 Special Topics. Readings, lectures, discussions, or labs (or any combination) in specific computer science topics. Prerequisites dependent upon topic selected. Permission of the instructor required. One to four credits. Offered on demand.

CS 399 Independent Readings. Hours, credit, topics, and time to be arranged with individual staff members with approval of the department. One to four credits. Offered fall and winter semesters.

CS 437 Distributed Computing. Foundations of distributed computing: modern operating systems and computer networks. Comparative discussions of commercially important OSs. Network programming paradigms, network applications, and client/server development. Laboratory exercises in network and client/server programming. Prerequisites: CS 262, 337, 353, and CS/IS major standing. (3-0-2). Four credits. Offered fall and winter semesters.

CS 443 Software Development Tools. On-line programming using CICS and COBOL. Fourth-generation tools in application development. Use of a specific, representative fourth-generation environment. Prerequisites: CS 253, 350, 353, and CS/IS major standing. (3-0-0). Three credits. Offered winter semester.

CS 450 Advanced Application Development. Advanced systems analysis and design concepts, strategies and techniques. Development of systems documentation and user guides for complex, integrated systems. Work flows, procedures, forms and algorithms for common accounting, financial, operational, manufacturing and management systems. Current trends and developments in information systems technology. Prerequisites: CS 350, 353, and CS/IS major standing. (3-0-0). Three credits. Offered fall semester.

CS 451 Computer Architecture. Boolean algebra, combinatorial circuits and sequential circuits. Survey of computer architecture. Organization of a RISC microprocessor: instruction set, CPU, memory hierarchy, I/O, bus and interrupts. Advanced computer architecture: pipelining, super-scalar, multiprocessors and multicomputers, software and performance issues. Prerequisites: CS 351 and CS/IS major standing. (3-0-2). Four credits. Offered winter semester.

CS 452 Operating Systems Concepts. Fundamental operating system concepts: processes, coordination and synchronization, scheduling, deadlock; memory management; input/output; file systems; distributed systems. Examples and lab exercises from modern operating systems such as UNIX and Mach. Prerequisites: CS 351, 361, and CS/IS major standing. (3-0-2). Four credits. Offered fall and winter semesters.

CS 457 Data Communications. An introduction to data communications techniques, particularly as applied to computer networks. Physical media and devices, data link and network protocols, and other data communications topics will be studied. Prerequisites: CS 351 and CS/IS major standing. (3-0-2). Four credits. Offered fall and winter semesters.

CS 459 Embedded Computer Systems. Software design issues and methodologies for real-time, embedded computer systems development. Reliability and fault-tolerance, scheduling, synchronization, concurrency, and data communications in real-time embedded systems. Real-time operating systems, embedded systems and distributed computing. Programming in a high-level, real-time language. Prerequisites: EGR 326, CS 363, 452, and 457. (3-0-0). Three credits. Offered summer semester of even-numbered years.

CS 460 Management of Information Systems. Capstone for the information systems major. The course ties together concepts provided in other courses. The information needs of the organization are integrated with information systems. Administration and policy are applied to specific areas of information system management. Prerequisites: CS 350, MGT 331, and CS/IS major standing. (3-0-0). Three credits. Offered winter semester.

CS 461 Compiler Design and Construction. Basics of compiler construction. Topics include lexical analysis, grammars for programming languages, parsing algorithms, symbol table construction and management, code generation and optimization. A term project consists of writing a compiler for a specified language. Prerequisites: CS 351, 362, and CS/IS major standing. (3-0-0). Three credits. Offered fall semester of even-numbered years.

CS 462 Structure of Programming Languages. Language definition structure. Data types and structures. Control structures and data flow. Lexical analysis and parsing. Interpretive languages. Run time considerations. Survey of programming languages. Prerequisites: CS 362 and CS/IS major standing. (3-0-0). Three credits. Offered winter semester.

CS 463 Information Systems Project. Formal evaluation of a software/hardware package or of a proposed or existing system, or the analysis, design, and implementation of an

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application system. Formal reports and presentations required. Prerequisites: CS 350, 353, 443, and CS/IS major standing. (3-0-0). Three credits. Offered fall semester.

CS 465 Automata and Theory of Computation. Introduction to basic mathematical models of computation and the finite representation of infinite objects. Finite automata, regular languages, non-determinism, pushdown automata, context-free languages, Turing machines and variants, halting problem, time complexity of algorithms, and NP-complete problems. Prerequisites: MTH 325, CS 162, and CS/IS major standing. (3-0-0). Three credits. Offered fall semester of odd-numbered years.

CS 467 Computer Science Project. Individual or group projects using the department's laboratory facilities. Prerequisites: CS 350, 362, and CS/IS major standing. (3-0-0). Three credits. Offered winter semester.

CS 480 Special Topics. Readings, lectures, discussions, or labs (or any combination) in specific computer science topics. Prerequisites dependent upon topic selected. Permission of the instructor required. One to four credits. Offered on demand.

CS 490 Internship. Internship in a computing situation with individual faculty supervision to allow students to apply academic knowledge to actual and professional experience. A minimum of 16 hours of actual fieldwork per week under the supervision of a work supervisor is required. Graded credit/no credit. Prerequisites: Junior status, 2.0 overall GPA, 2.0 GPA in major. See departmental application form for further information. Variable credit. Offered every semester.

CS 499 Independent Study and Research. Hours, credit, topics, and time to be arranged with individual staff members with approval of the department. One to four credits. Offered fall and winter semesters.

CS 500 Fundamentals of Computer Science. Focuses on the advanced programming concepts, common data structures, and basic models that students of Computer Science and Information Systems need to know. Elements of discrete mathematics are integrated through lectures and programming projects. Prerequisites: CS 162 or knowledge of a high-level programming language. (3-0-0). Three credits. Offered fall and winter semester.

CS 611 Introduction to Software Engineering. Examination of traditional and alternative software development life cycles and their associated systems analysis techniques. Models for data, process, and control are related both to information required by various life cycle models and to the development of traditional and object-oriented software. Prerequisite: CS 500. (3-0-0). Three credits. Offered winter semester.

CS 612 Requirements Specification. Both the process and the product aspects of requirements specification are examined; the concepts are applicable to systems and to software. The advantages and limitations of several requirements specification techniques are presented. Prerequisite: CS 611. (3-0-0). Three credits. Offered fall semester.

CS 613 Software Testing. Discussion of the major techniques of software testing: software technical reviews, software testing techniques, proofs of correctness, and simulation/prototyping. Concludes with guidelines on organizational implications of software verification and validation activities. Prerequisite: 612. (3-0-0). Three credits. Offered winter semester.

CS 621 Object-Oriented Programming. An introduction to object-oriented programming in C++. C++ constructs and programming techniques that are essential for performing successful object-oriented design and implementation are covered. Prerequisite: CS 500. (3-0-0). Three credits. Offered fall semester.

CS 622 Software Design Methodologies. Focuses on concepts, notations, and guiding principles for object-oriented design. Other design methods (such as structured design and data-oriented design) are discussed and compared to object-oriented design. Prerequisite: 621. (3-0-0). Three credits. Offered winter semester.

CS 623 Graphical User Interface Design. Topics include basic concepts, models, and methods in graphical user interface (GUI) design, as well as underlying software architectures. In addition, students will gain practical experience with a typical GUI building tool. Prerequisite: CS 622. (3-0-0). Three credits. Offered fall semester.

CS 633 Microcomputer Database Management. Database management with emphasis on microcomputer database management systems. Relational model concepts and applications. Database design methodology. Evaluation and selection of database management systems.

Computer Science and Information Systems

Database administration. Fourth-generation tools. Detailed coverage of a major microcomputer DBMS such as dBASE. Prerequisite: Some computer experience. (3-0-0). Three credits. Offered winter semester of even-numbered years.

CS 641 Management of Software Development. Models and techniques for the major phases of software development, with emphasis on requirements specification, design, testing, and software maintenance. Description of the roles of project management, quality assurance, and configuration management. Prerequisite: CS 500. (3-0-0). Three credits. Offered fall semester.

CS 642 Software Project Management. Planning, organizing, staffing, controlling, and directing software projects. Major emphasis on project planning, techniques for monitoring and controlling projects, quantitative methods and tools, and leadership issues in project management. A term project that involves the development of a project plan for a non-trivial software project will be required. Prerequisite: CS 641. (3-0-0). Three credits. Offered winter semester.

CS 643 Information Systems Policy. Operational, strategic, and tactical facets of the planning cycle. Hardware and software considerations, system migration, capacity and contingency planning, project selection and prioritization. Role of contract programmers and consultants as supplement to regular staff. Comparison of systems developed in-house with packages available for purchase. Prerequisite: CS 642. (3-0-0). Three credits. Offered fall semester.

CS 654 Computer Networking. Fundamental data communications and computer networking concepts; communications model, signals, digital transmission systems, packet switching, multiplexing, data link protocols, Internet-working. Projects build around TCP/IP protocol suite and Internet application protocols. Introduction to client/server programming and sockets API. Prerequisite: CS 500. (3-0-0). Three credits. Offered winter semester.

CS 656 Operating Systems. Fundamental operating system concepts: process, thread, synchronization, scheduling, memory management. Advanced topics in distributed systems, such as DCE, distributed file systems, naming, administration. Continuation of client/server programming, including RPC and distributed object-oriented programming. Prerequisite: CS 654. (3-0-0). Three credits. Offered fall semester.

CS 658 Distributed Computing. A project in distributed computing which builds upon the concepts and technology covered in CS 654 and 656. Students will specify, analyze, design, and implement a complete system. Lectures on advanced and current topics in distributed computing. Prerequisite: CS 656. (3-0-0). Three credits. Offered winter semester.

CS 672 Computer Systems Architecture. Provides a general understanding of computer architecture and the logical organization of modern digital computers. CPU organization and input/output subsystem organizations are emphasized. The relationship between the computer architecture and the operating system is studied. Prerequisite: CS 500. (3-0-0). Three credits. Offered on demand.

CS 673 Principles of Database Design. Techniques and tools used in the design of applications that utilize database management systems. Detailed treatment of conceptual modeling, logical and physical design, and query languages. Services provided by database management systems to the level of detail needed by application designers. Introduces students to the scope of the database field. Prerequisite: CS 500 or equivalent. (3-0-0). Three credits. Offered fall semester.

CS 674 Modeling and Decision Systems. Introduction to modeling, model types, and methods. A simulation language is studied and a programming project is assigned that requires this language for a discrete system simulation. Prerequisite: CS 500. (3-0-0). Three credits. Offered on demand.

CS 675 Compiler Construction. A study of language translation and interpretation. Existing tools such as lexical analyzer generators and parser generators to facilitate compilation are introduced. A substantial programming project is required that consists of writing a small compiler. Prerequisite: CS 500. (3-0-0). Three credits. Offered on demand.

CS 676 Database Management Systems. This course provides an in-depth study of the concepts and techniques used in implementing typical relational database engines. It also covers how the concepts are extended to address the challenges posed by post-relational, distributed, and parallel databases. Prerequisite: CS 673. (3-0-0). Three credits. Offered winter semester.

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CS 679 Advances in Database Management Systems. This course exposes students to the latest trends in database management systems. Specific contents and level of emphasis of each topic will be determined by trends in the field and by the interests and expertise of faculty and students. Prerequisite: CS 676. (3-0-0). Three credits. Offered fall semester.

CS 680 Seminar in Computer Information Systems. Discussion of current advances in computer information systems theory, methodologies, and support systems. (3-0-0). Three credits. Offered on demand.

CS 685 Computing Workshop for Educators I. Detailed examinations of current topics, techniques, and methods relating to the use of computers and technology in the K-9 classroom. Prerequisites: EDG 618 (ED 684) or permission of the instructor. One to three credits. Offered on demand.

CS 686 Computing Workshop for Educators II. Current topics, techniques, and methods concerning the implementation and integration of computers and technology in middle and high school curricula. Prerequisites: EDG 618 (ED 684) or permission of the instructor. One to three credits. Offered on demand.

CS 690 Master's Thesis Research. Faculty-supervised study and research on a suitable topic in Computer Information Systems. Prerequisite: Consent of Thesis Advisor. Three credits. Offered fall and winter semesters.

CS 692 Master's Capstone. An integrative capstone course that promotes synthesis of topics in at least two content areas. Seminar for students having completed all courses in two content areas. Students will demonstrate ability to apply concepts to a practical situation by leading a critical discussion and presenting a paper on a current topic. Prerequisite: Completion of two content areas. Three credits. Offered fall and winter semesters.

CS 693 Master's Project. Individual student project involving the development or evaluation of a complex software, information, or database system. Prerequisites: Completion of two content areas. Three credits. Offered fall and winter semesters.

CS 695 Master's Thesis. Continuation of faculty-supervised study and research on topic identified in CS 690. Prerequisite: Consent of Thesis Committee. Three credits. Offered fall and winter semesters.

CS 699 Directed Readings in Computer Science. Independent supervised reading on selected topics in computer information systems or software engineering. Credits and topics must be prearranged with a faculty member and approved by the department. Prerequisite: 500. One to three credits. Offered fall and winter semesters.

School of Criminal Justice (CJ)

Director: Houston. Professors: Baro, Houston, Kalinich, Van Meter, White; Associate Professors: Bailey, Hewitt, Johnson, McKenzie, Mullendore, Walker, Ziembo-Vogl; Assistant Professors: Ballard, Bikle, Meesig; Director of Criminal Justice Training: Bolger; Acting Director of Police Academy: Johnson; Internship Coordinator: Burlingame.

The School of Criminal Justice offers a bachelor of science or bachelor of arts and a master's degree in criminal justice. In the undergraduate program, students choose an emphasis in law enforcement, juvenile justice, corrections, or private security. Graduate students can choose to pursue concentrated studies in labor relations, social work, public administration, or policy formulation and planning. The school also offers a major in legal studies for students seeking to become paralegals. For information about the paralegal program, consult the legal studies section in this catalog.

The Michigan State Requirements for Certification in Law Enforcement

The School of Criminal Justice at Grand Valley State University operates a state-certified C.O.L.E.S. police academy during the summer months. The program

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leads to eligibility for police certification in Michigan and several other states, and it can be counted toward a major in criminal justice or general electives for graduation. The GVSU Police Academy has achieved a reputation for excellence. Any student wishing further information should contact the Director of the School of Criminal Justice or the Acting Director of the Police Academy.

Internships

The School of Criminal Justice allows selected students to complete internships at specified job sites. Upper-division undergraduate students may elect CJ 490 and/or CJ 491 if they are approved by the internship coordinator and a job site supervisor. Private security students may apply for CJ 492, an intensive semester at a job site. CJ 490 and 491 normally require 15 hours on the site per week. CJ 492 may require students to spend an entire semester exclusively at a private security job site. Graduate students without prior criminal justice or private security work experience are required to complete a CJ 640 internship (see Criminal Justice Master Degree Requirements). No more than six credit hours may be applied to the major; graduate internships are limited to three credit hours. To apply for an internship, contact the internship coordinator.

Major Program Requirements

To complete the requirements for graduation with a bachelor's degree in criminal justice or legal studies, students must fulfill the general education requirements. Although most courses taken at accredited colleges and universities are transferable for full credit, only four courses will be considered toward criminal justice major programs. Students should take at least two-thirds of the credits constituting their major from Grand Valley State University.

Students majoring in criminal justice or in legal studies may earn either a B.A. or a B.S. degree. The B.A. degree requires third-semester proficiency in a foreign language; the B.S. degree requires the completion of STA 215, SS 300, and CJ 400.

Bachelor's in Criminal Justice. A minimum of 39 credits is required. All majors must take the following seven courses (21 credit hours): CJ 101, 301, 302, 305, 470, 495, and SOC 382. In addition, majors must complete either six courses (18 credit hours) in a general emphasis area or nine courses (27 credit hours) in the law enforcement certification track. The emphasis areas include

1. Law Enforcement Option I (C.O.L.E.S. certification). All students must complete CJ 410, 411, 461, 490 and the summer police academy (CJ 415, 416, 417, 418, and 419). Academy entry is restricted by separate admissions examinations and the selection process is highly competitive. Applicants are expected to meet state of Michigan standards including no felony convictions and vision and hearing minimums. Declaration or completion of the criminal justice major does not guarantee admission to the police academy. Students considering the police academy should take a broadly based series of social science courses in addition to the major requirements for criminal justice.
2. Law Enforcement Option II. All students must complete CJ 410, 411, and 461. In addition, students must elect one class (three credit hours) from each of the following areas for a total of nine elective credit hours: CJ 320, 350, or SOC 384; CJ 311 or 490; SS 321, SS 322, or PA 270. With advisor's permission, CJ 310, 325, 380, 399, 405 and 499 may also be used as electives.

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3. Juvenile Justice. All students must complete CJ 350, 355, and 420. In addition, students must elect three classes (nine credit hours) from the following: CJ 320, 490, SOC 384, SOC 389, SS 323, and PSY 331. With advisor's permission, CJ 310, 325, 380, 399 and 499 may also be used as electives.
4. Adult Corrections. All students must complete CJ 300, 331, and 463. In addition, students must elect three classes (nine credit hours) from the following: CJ 320, 355, 490, SOC 384, and PSY 303. With advisor's permission, CJ 310, 325, 380, 399, 405 and 499 may also be used as electives.
5. Private Security. All students must complete CJ 315, 464, and OSH 110. In addition, students must elect a total of nine credits from the following: CJ 492 (three to six credit hours depending on the job site), BUS 201, and an accounting elective, or a management elective. BUS 201 and accounting and management courses are offered through the Seidman School of Business. Students must check with the Seidman School for proper placement in accounting and management classes.

Minor Program Requirements

Minor in Criminal Justice. Minors are required to complete at least 21 credit hours, including CJ 101, 301, 305, and 470 and three of the following: CJ 302, 330, 350, 400, 410, and 495, or another approved sequence. See the director of the School of Criminal Justice for information.

Courses of Instruction

CJ 101 Justice and Society. This introduction to the study of crime and justice includes theories and methodologies from a variety of social science disciplines. The course also provides an introduction to the study of social control and to the origins of crime at individual, structural, and cultural levels. Fulfills Social Sciences Foundation. Three credits. Offered fall and winter semesters.

CJ 301 Criminology. An analysis of crime, criminal behavior, punishment, and the theories of deviancy from historical perspectives. Three credits. Offered fall and winter semesters.

CJ 302 Criminal Law. The sources, specific and general elements, and limitations of modern criminal laws, and the role of criminal law in the definition and control of deviant behavior in contemporary society. Three credits. Offered fall and winter semesters.

CJ 305 Constitutional Rights and Civil Liberties. Survey of the nature and extent of protection of civil liberties and civil rights of the accused under the U.S. Constitution through examination of landmark Supreme Court decisions. Three credits. Offered fall and winter semesters.

CJ/WGS 310 Sexual Orientation, Law, and Policy. An examination of legal and policy issues relating to sexual orientation including topics relating to constitutional law, criminal law, family law, and employment law. Part of Gender and Identity theme. Three credits. Offered winter semester.

CJ 311 Criminal Investigation. Modern police field investigative techniques in collection and preservation of physical evidence and interrogation and preparation of formal statements of witnesses and suspects. Three credits. Offered fall and winter semesters.

CJ 315 Principles of Security. An in-depth analysis of the historical perspectives, current status components, and opportunities in private security. Special emphasis is placed on technology, internal and external threats, and fire prevention and safety. Three credits. Offered fall semester.

CJ/WGS 320 Crimes Against Women. An in-depth study of crimes committed almost exclusively against women. Such crimes include sexual harassment, rape, and certain types of murder. The course is taught within the framework of feminist theory and research. Part of Gender and Identity theme. Three credits. Offered fall and winter semesters.

CJ 325 Criminal Justice and Human Rights. Major focus is on the tension between evolving definitions of human rights and criminal justice system efforts to maintain or increase levels

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of social control. The course also provides opportunities to study international perspectives on criminal justice institutions. Part of Freedom and Social Control theme. Three credits. Offered winter semester.

CJ 330 Adult Community Corrections. Survey of correctional programs designed to treat, punish, and control offenders in the community. Special topics include probation and parole, and intermediate sanctions. Also includes applied criminal theory and related political philosophies. Prerequisite: 301. Three credits. Offered fall semester.

CJ 331 Adult Institutional Corrections. The history of imprisonment as a mechanism of social control, punishment versus treatment as a philosophy, rights of prisoners, and examination of contemporary institutional subcultures and programs. Prerequisite: 301. Three credits. Offered fall semester.

CJ 350 Juvenile Justice and Corrections. An analysis of the historical, philosophical, and legal foundations and processes of the juvenile justice system. Special attention is given to legal and administrative issues. Examines current issues and controversies facing the juvenile justice system. Three credits. Offered fall and winter semesters.

CJ 355 Youth Culture and Crime. The study of the emergence of youth subcultures over the course of the twentieth century and its relationship to issues of crime and delinquency. Special attention will be given to the social and cultural context of youth, including the family, neighborhood, media drugs, gangs, guns, race, class, and gender roles. Three credits. Offered fall and winter semesters.

CJ 380 Special Topics in Criminal Justice and Legal Studies. Focuses on topics not ordinarily dealt with in other courses. Topics will be determined by faculty interest and student request. While the course can be repeated, no more than six credits can be applied to a criminal justice or legal studies major. One to three credits. Offered on demand.

CJ 399 Independent Readings in Criminal Justice. Independent supervised readings on selected topics not dealt with in-depth in another course. Prerequisites: Junior or senior status and permission of instructor. Offered on a credit/no credit basis. One to three credits. Offered each semester.

CJ 400 Case Studies in Criminal Justice. Emphasis on criminal justice theories and practices as they developed in applied areas of research. A case-by-case approach will be used in an effort to prepare students for documentary and bibliographical research techniques. Required for B.S. cognate in criminal justice. Prerequisite: Junior or senior status. Three credit hours. Offered fall and winter semesters.

CJ 405 Terrorism. A survey of modern domestic and international terrorism. Examines the structure and dynamics of terrorist groups, types of terrorist violence, and justification of violence. Analysis of geographical regions, religion, ideology, technology, counter measures, media, and mass destruction. Part of Making War and Peace theme (#05). Three credit hours. Offered fall and winter semesters.

CJ 410 Police Process. Functions of law enforcement and the roles of the police in contemporary society. Study of the police from several perspectives: historical, sociological, psychological, organizational and political. Issues, research, and trends pertinent to law enforcement organizations. Prerequisites: 301 and junior standing. Three credits. Offered fall and winter semesters.

CJ 411 Community Policing. Community policing philosophy, applications, issues, and contemporary research. Theoretical and practical aspects pertaining to the relationship between police agencies and the total community. Domestic and international community policing and problem solving models. Prerequisites: 301 and 410 (410 may be taken concurrently). Three credits. Offered fall and winter semesters.

CJ 415 Law Enforcement Physical Education, Defensive Tactics and Firearms. A required course for Michigan Law Enforcement Certification. Ninety hours to ensure that basic state requirements are met in physical education, defensive tactics, and firearms. Three credits. Offered summer semester. Restricted enrollment.

CJ 416 Special Operations and Training. The skills and knowledge essential for the law enforcement officer to function effectively and professionally in the community. The course includes a wide range of subjects including police communications, domestic complaints, and human relations. Required for Law Enforcement Certification. Three credits. Offered summer semester. Restricted enrollment.

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CJ 417 Criminal Investigations II. An advanced class in techniques and theories of all aspects of the discovery and preservation of evidence to ensure the legal admissibility of such evidence under Michigan law. Required for Law Enforcement Certification. Three credits. Offered summer semester. Restricted enrollment.

CJ 418 Patrol and Traffic Administration and Procedure. Designed to analyze the necessity for and the theory of regulatory laws to protect life and property and to promote theories of safety. Required for Law Enforcement Certification. Three credits. Offered summer semester. Restricted enrollment.

CJ 419 Michigan Criminal Law. A study of the basic criminal statutes of Michigan. Promotes knowledge of the regulations to control criminal behavior and deviance from the norms of society. Required for Law Enforcement Certification. Three credits. Offered summer semester. Restricted enrollment.

CJ 420 Juvenile Correctional Counseling. This class is designed to provide education and practice strategies for establishing rapport, gathering information, conducting assessment, modifying delinquent youths' emotional state and maladaptive behaviors, assessing suicide risk, and making referrals. Specific techniques in addition to understanding specific counseling paradigms used with resistant and delinquent youth will be explored. Three credits. Offered winter semester.

CJ 461 Police Management and Legal Issues. An in-depth analysis of critical issues in police leadership, management, and operations with an emphasis on related legal issues. Prerequisites: CJ 301 and 305. Three credits. Offered fall and winter semesters.

CJ 463 Corrections Administration and Legal Issues. The study of modern correctional organizations and administrative strategies. Special emphasis is placed on current legal issues involving both staff and client/offenders. Prerequisites: CJ 301 and 305 (305 may be taken concurrently). Three credits. Offered winter semester.

CJ 464 Security Administration and Legal Issues. An in-depth analysis of critical issues in the administration and supervision of private security organizations with an emphasis on the related legal issues. Prerequisite: 305 (may be taken concurrently). Three credits. Offered winter semester.

CJ 470 Seminar on Crime Control and Justice Policy. A capstone course offering a philosophical review of the nation's justice system and providing an evaluation of policies and practices designed to prevent, control, and reduce crime and to improve justice. Prerequisites: CJ 301 and senior standing in the program. Permit required. Three credits. Offered fall and winter semesters.

CJ 490 Criminal Justice Practicum I. Internship in local agencies with individual faculty supervision to allow students to apply academic knowledge to actual and professional experience. Prerequisites: Senior status, permission of instructor, and completion of an application form obtained during the semester before the practicum. Offered on a credit/no-credit basis. Three credits. Offered each semester.

CJ 491 Criminal Justice Practicum II. A second internship may be taken for those serving additional fieldwork experience. Prerequisites: Senior status, permission of instructor, and completion of an application form obtained during the semester before the practicum. Offered on a credit/no-credit basis. Three credits. Offered each semester.

CJ 492 Internship in Private Security. Internship in private security agencies with individual faculty supervision to allow students to apply academic knowledge through participant observation. Prerequisites: CJ 315, 464, OSH 110, and completion of application. Offered on a credit/no credit basis. Three to six credits. Offered each semester.

CJ 495 Issues in Criminal Justice. Consideration of special subjects in criminal justice. Topics to be announced in advance. Prerequisites: CJ 301, 305, and junior or senior status. Three credits. Offered fall and winter semesters.

CJ 499 Independent Study and Research. An independent research project of an interdisciplinary nature based on knowledge acquired in other courses, the internship experience, or courses taken in the program. The research would normally fall in the area of emphasis selected by the student. Prerequisites: Permission of the instructor and senior standing. Offered on a credit/no-credit basis. One to three credits. Offered each semester.

Social Science Courses

SS 321 Crime and Punishment. Examines primary theoretical orientations toward crime and punishment that have been evident throughout history. Also how different societies at

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different times have attempted to define crime and how these definitions have created social reactions and legal punishments. Three credits. Offered each semester.

SS 322 Militarism. Examines militarism and its structures and functions across cultures. Includes a case study of Germany 1648–1945 and pays special attention to nationalism, imperialism, industrialization, and social control. Fulfills World Perspectives requirement and part of Making War and Peace theme. Three credits. Offered each semester.

Master of Criminal Justice

This 36-credit graduate program is designed to prepare students to become highly capable criminal justice leaders, planners, activists, futurists, and academicians who will continually improve the criminal justice system and profession. The program is also designed to prepare those students who are planning to pursue doctoral degrees. Courses are designed to meet the needs of managers and administrators in law enforcement, adult corrections, juvenile justice, and private security.

The Master of Criminal Justice degree program includes 18 hours of required courses, an option to choose between a three-credit project and a six-credit thesis requirement, and guided electives resulting in concentrations of nine to 18 credits, mostly from other disciplines. In addition, students without work experience in criminal justice or private security are required to take a three-credit graduate internship course (CJ 640).

Admission

The minimum GVSU requirements are listed in the Admissions section of the catalog. Applicants must have a bachelor's degree and should have an undergraduate grade point average of 3.0 or higher calculated on the last 60 hours of undergraduate work. All applicants must also pass a written application essay examination and submit three letters of recommendation. Those with less than a 3.0 grade point average may be admitted if they have five or more years of professional experience in criminal justice or a related field, pass the application essay exam, and obtain GRE or Miller's Analogy Test scores that indicate a likelihood of academic success. The decision of the Admissions Committee is final.

Applications for fall admission should be received by May 1; winter admission applications should be received by November 1. The Admissions Committee reserves the right to require additional information it deems appropriate, including GRE or GMAT test scores. The committee may also require applicants to appear for an oral interview.

Students in the process of applying for admission may enroll in CJ 601 and/or CJ 602 with the permission of the instructor. Successful completion of these courses with grades of A or B will be considered indicators of a likelihood of academic success but will not guarantee admission.

Transfer Credit

Up to 12 hours of transfer credit may be applied to the degree program. Such credit must meet the requirements specified in the "Transfer of Credit" section of this catalog, be recommended as applicable to the degree program by a graduate faculty advisor, and be approved for transfer application by the Criminal Justice Graduate Program Coordinator.

Dual Credit

In accordance with GVSU policy, undergraduates may enroll in some graduate courses (see prerequisites) but must have at least a 3.0 GPA, have completed 85 semester hours, obtain a permit from the instructor, and fill out the GVSU "Dual Credit Request Form." Credit earned can be used as part of an undergraduate program or as part of a future graduate program but cannot be used for both purposes.

Criminal Justice Master Degree Requirements

The criminal justice master's degree consists of a minimum of 36 credit hours. Students are strongly encouraged to be familiar with the *SCJ Graduate Handbook*. The core of required courses consists of 18 credit hours as follows:

CJ 601 Criminal Justice Leadership
CJ 602 Legal and Ethical Issues
CJ 603 Community and Mass Media
CJ 604 Criminal Justice Policy
CJ 605 Program Evaluation

and the student's choice of one of the following courses:

CJ 620 Advanced Police Systems
CJ 621 Advanced Corrections Systems
CJ 622 Advanced Juvenile Justice Systems
CJ 623 Advanced Private Security Systems

Strongly Recommended:

Students who do not have undergraduate degrees in criminal justice or criminology are strongly encouraged to take CJ 101 Justice and Society, CJ 301 Criminology, and CJ 305 Constitutional Rights and Civil Liberties before they take any of the CJ graduate level courses. All three of these courses are offered each semester. These are preparatory courses and cannot be used to satisfy graduate degree requirements; only graduate credits can be applied to degree requirements.

Students who plan to pursue doctoral studies are strongly encouraged to take an advanced course in applied statistical methods. The following course is recommended: CJ 630 Criminal Justice Data Analysis.

Additional Requirements:

A CJ 640 Graduate Internship is required of students who have no prior criminal justice or private security work experience.

and the student's choice of one of the following courses:

CJ 693 Criminal Justice Project
CJ 695 Criminal Justice Thesis

Students must also choose a concentration of nine to 18 credits and must meet with an advisor during the first semester of admission to plan their course of studies, including the concentration. Substitutions (i.e., courses not listed) in the concentrations are allowed but must have transfer credit or prior advisor approval.

Concentrations (nine to 18 credit hours)

Labor Relations

BUS 631 Leadership and Organizational Dynamics
MGT 637 Problems in Labor-Management Relations
PA 639 Issues in Occupational Health

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MGT 632 Contemporary Communication for Managers
PA 642 Conflict Resolution
CS 633 Microcomputer Database Management

Social Work

SW 600 Human Diversity in Social Work Practice
SW 614 Social Policy and Mental Health
SW 616 Law, Ethics, and Social Welfare
SW 622 Psychopathology and Social Deviance
SW 660 Grantsmanship and Resource Development
SW 662 Substance Abuse and Social Work Practice
SW 676 Community and Social Planning
SW 678 Human Services Administration
CS 633 Microcomputer Database Management

Public Administration

PA 612 Human Resources in Organizations
PA 614 Organization Theory
PA 615 Public Financial Administration
PA 621 Administrative and Regulatory Law
PA 642 Conflict Resolution
PA 643 Strategic Planning
CS 633 Microcomputer Database Management

Policy Formulation and Planning

PA 643 Strategic Planning
SW 676 Community and Social Planning
PA 641 Economic Development
PA 535 Grant Writing
PA 616 Public Policy Analysis
CS 633 Microcomputer Database Management

Courses of Instruction

CJ 601 Criminal Justice Leadership. Addresses visionary leadership applied to the administration of criminal justice. Includes an orientation to criminal justice graduate studies. Prerequisite: Admission to CJ graduate program or permission of instructor. Required of all students. Three credits. Offered fall and winter semesters.

CJ 602 Legal and Ethical Issues. Provides students an opportunity to analyze the impact of constitutional, statutory, case, and administrative law on all segments of the criminal justice system. Ethical principles and professional standards are also studied. Prerequisites: Admission to CJ graduate program or permission of instructor and CJ 601 (may be taken concurrently). Required of all students. Three credits. Offered fall semester.

CJ 603 Community and Media Relationships. Exemplary community crime prevention, policing, adult corrections, juvenile justice, and private security projects will be studied as a way to focus on building effective community and media relationships. Prerequisites: Admission to CJ graduate program and CJ 601 (may be taken concurrently). Required of all students. Three credits. Offered winter semester.

CJ 604 Criminal Justice Policy. Policy formulation models and strategies will be studied and applied to crime control and other criminal justice agency missions. Multi-agency or cooperative policy formulation will be emphasized. Prerequisites: Admission to CJ graduate program and CJ 601 (may be taken concurrently). Required of all students. Three credits. Offered winter semester.

CJ 605 Program Evaluation. Survey of disciplinary relevant program evaluation research methods. Well-known criminal justice program evaluation studies will be critiqued and students will design evaluation research projects. Prerequisites: Admission to CJ graduate program and CJ 601 (may be taken concurrently). Required of all students. Three credits. Offered winter semester.

East Asian Studies

CJ 620 Advanced Police Systems. In-depth study of police organizations, organizational and law enforcement system development, management philosophies, and current issues of most concern to regional and national law enforcement executives. Prerequisites: Admission to Criminal Justice graduate program and CJ 601, 602, and 604. Three credits. Offered winter semester.

CJ 621 Advanced Corrections Systems. In-depth study of adult corrections organizations, organizational and system development, management philosophies, and current issues of most concern to regional and national corrections executives. Prerequisites: Admission to CJ graduate program and CJ 601, 602, and 604. Three credits. Offered winter semester.

CJ 622 Advanced Juvenile Justice Systems. In-depth study of juvenile justice organizations, organizational and system development, management philosophies and current issues of most concern to regional and national juvenile justice executives. Prerequisites: Admission to CJ graduate program and CJ 601, 602, and 604. Three credits. Offered fall semester.

CJ 623 Advanced Private Security Systems. In-depth study of private security organizations, organizational and system development, management philosophies, and current issues of most concern to regional and national private security executives. Prerequisites: Admission to CJ graduate program and CJ 601, 602, and 604. Three credits. Offered fall semester.

CJ 630 Criminal Justice Data Analysis. Applied statistical methods and use of computerized statistical programs. Designed for students who wish to pursue doctoral studies, and/or choose the thesis option. Prerequisites: Admission to CJ graduate program and CJ 601 and 605. Three credits. Offered once every two years.

CJ 640 Graduate Internship. A supervised criminal justice or private security agency administrative internship. This course is required of students who have no work experience in criminal justice or private security. Those who have prior work experience may earn internship credit with advisor approval. Credit/no credit. Prerequisites: Admission to CJ graduate program and permission of instructor. Three credits. Offered every semester.

CJ 685 Criminal Justice Workshops. One-credit workshops designed to provide students opportunities to learn from and study with people who have considerable expertise in special topics. Prerequisites may be established and advisor approval is required. No more than three hours of CJ 685 may be used to meet the graduate degree requirements. Offered each semester.

CJ 693 Criminal Justice Project. In cooperation with a criminal justice or private security agency and under faculty supervision, students will address specific administrative problems or issues. The final product will be evaluated by an agency executive and faculty committee members. Prerequisites: 601, 602, 603, 604, and 605, and permission of instructor. Three credits. Offered each semester.

CJ 695 Criminal Justice Thesis. Preparation of an extensive research and writing assignment under faculty supervision. Involves working with a thesis committee and formal defense of the thesis. Prerequisites: 601, 602, 603, 604, and 605, and permission of instructor. One to six credits. Offered each semester.

CJ 699 Directed Readings. A library research or readings project, program proposal, research proposal, or other activity requiring extensive readings that enhance the student's knowledge. Prerequisites: Admittance to the Criminal Justice graduate program and permission of instructor. One to three credits. Offered each semester.

East Asian Studies Minor (EAS)

Coordinator: C. Smith. Associate Professors: Helgert, Lai, Ni; Assistant Professors: Huang, Y. Jiang, C. Smith, Y. Yu.

East Asian studies at Grand Valley explores the languages, cultures, histories, and socioeconomic conditions of Japan and China. The program recognizes the complex traditions and historical contributions of these countries while acknowledging the essential roles they play in the world today.

China, with more than a billion people, and Japan, with its unparalleled economic progress, have been perceived as "inaccessible" and "remote" by Westerners. The

East Asian Studies

East Asian studies program balances a liberal arts and professional approach to understanding both the economic potential and the basic need for intercultural relationships with these two countries.

The East Asian studies minor was designed for students who are interested in Chinese and Japanese culture and who see fluency in the Chinese and Japanese languages as vital for their effectiveness in an increasingly international marketplace. Students at Grand Valley majoring in business, communications, English, history, international relations, philosophy, and political science, among others, will find that the East Asian studies minor program provides a unique perspective on these two dynamic countries and a valued complement to their major programs. Students who have studied Japanese or Chinese at the primary or secondary level, transfer students who initiated language study at other two- or four-year institutions, and study abroad participants are also welcome.

As a part of their EAS program, students can participate in the Japanese studies program at International Christian University (ICU) or the Japan Center for Michigan Universities (JCMU). Students interested in Chinese language and culture may select a study abroad program at East China Normal University. Summer study abroad programs are also available in mainland China and Taiwan. Consult the Padnos International Center or the coordinator of the East Asian Studies Program for information on these study abroad programs.

Students are also encouraged to participate in the activities of local Asian associations including the Asian-American Association, the Japan-American Society of West Michigan, and the Chinese Association of West Michigan, along with student groups such as the Asian Student Union (ASU) and the International Student Organization (ISO). Members of community organizations and businesses are also invited to take courses and participate in program activities.

Students minoring in East Asian studies are required to complete 21–22 credit hours. Normally this includes nine credits of core courses, four credits of language, and nine credits of electives, for a total of 22 credits. Students who enter the university competent in Japanese or Chinese at the 202 level or higher will take one extra elective course, for a total of 21 credits. No more than two courses from any department other than EAS may be counted toward the minor. There is no limit on the courses designated EAS that may apply to the minor.

All minors will be required to complete three core courses:

EAS 201 East Asia in the Contemporary World
PHI 210 Eastern Philosophy
EAS 301 Masterpieces of East Asian Literature

In addition to the above required courses, students will choose nine credit hours of elective courses from the following list:

CHI 321 Ancient Chinese Culture
CHI 322 Classical Chinese Culture
CHI 380 Special Topics
ENG 204 Mythology (when taught by EAS faculty)
GPY 354 Geography of Asia
HST 333 Survey of Modern Chinese History
HST 340 A History of East Asia: To 1800
HST 341 A History of East Asia: Since 1800
PLS 283 Comparative Politics: China and Japan
EAS 180/280/380/480 Special Topics
EAS 399 Independent Study

Economics

Current and potential special topics include Classical Chinese Poetry, Classical Chinese Prose, Japanese Theater and Cinema, Chinese Theater and Cinema, Women in Chinese/Japanese Literature, Japanese Management and Corporations, and Strategic Japanese Communications.

Current and past study abroad courses that are also acceptable for electives include Contemporary Chinese Culture and Society, Advanced Readings in Japanese, Modern Japanese Literature in English Translation, Modern Japanese International Relations, Introduction to Asian Religions, Japanese Linguistics, and Strategic Japanese Communications.

Students may choose one course for their elective requirement from comparative international courses taught at Grand Valley. These comparative courses must have a minimum of 25 percent of their content devoted to East Asia. Below are examples of some courses that may qualify. Check with the coordinator of the East Asia studies program for a current list of acceptable courses.

HST 210 Empire, Culture, and Conflict
HST 334 The Ancient Mediterranean and Orient
SS 280 Comparative Religions
ECO 365 Comparative Economic Systems
SS 270 Gender and Family in Third World Development
ANT 204 Introduction to Cultural Anthropology

Credits transferred from an East Asian study abroad program will be evaluated and applied where appropriate to the EAS minor. However, of the 21–22 credits required, a minimum of six credits must be taken in residence at Grand Valley.

Courses of Instruction

EAS 180/280/380/480 Special Topics in East Asian Studies. A study of special topics not regularly covered in the curriculum. Expectations of this course approximate those in other 100- to 400-level courses. May be repeated for credit when the content varies. Variable credit.

EAS 201 East Asia in the Contemporary World. Prepares students for encountering East Asia in various ways. Introduces East Asian cultures, political and economic systems, international relationships, recent developments, traditional customs and behavior patterns, differences between regions and historical roots of some contemporary situations. Fulfills World Perspectives requirement. Three credits. Offered fall semester.

EAS 301 Masterpieces of East Asian Literature. Explores the literary masterpieces of China and Japan. Students will sample representative genres, such as poetry, dramas, novels, and short stories, from various periods that introduce the East Asian ways of thinking and living, namely, Confucian, Taoist, Buddhist, and Shinto. Prerequisite: 201 or junior standing. Three credits. Offered winter semester of odd-numbered years.

EAS 399 Independent Studies. Before registering, students must arrange for supervision by an East Asian studies faculty member and submit a contract (available from the EAS coordinator) specifying the topic and scope of the study. Ordinarily, no more than three credits of EAS 399 may count toward the minor. Instructor approval required prior to registration. One to three credits. Offered every semester.

Economics (ECO)

Chair: Singh. Professors: Reifel, Singh; Associate Professor: Sicilian; Assistant Professors: Dalmia, Isely, Simons, Thorsnes.

The economics program, part of the Seidman School of Business, is designed to give students an understanding of the structure and operations of the United States and international economies and an opportunity to develop a specialty within

Economics

economics or in a cognate field, such as accounting, mathematics, or political science.

Requirements for Major and Minor Programs

Economics majors may earn either a B.S., B.A., or B.B.A. degree. Completion of the B.A. degree requires demonstrated third-semester proficiency in a foreign language. Students who wish to earn a B.B.A. in business economics should consult the business section of this catalog. Majors earning a B.S. or B.A. must complete 30 hours of economics, including ECO 210, 211, 312, 313, and 495, the senior-level Capstone course. All economics majors are required to take STA 215, Introductory Applied Statistics and PHI 103, Logic, as cognate requirements. In addition, for their third cognate course, students can take either SS 300, Research Methods in Social Sciences, or STA 216, Intermediate Applied Statistics. Economics majors or minors cannot apply ECO 200 for credit to the major or minor.

Because economics is a department in the Seidman School of Business, economics majors must achieve a 2.5 minimum cumulative GPA and a 2.5 minimum GPA in all economics courses. A student whose cumulative GPA falls below 2.5 will not be permitted to take additional 300- and 400-level economics or business courses. However, such students may repeat 300- and 400-level Seidman economics and business courses for which they received a low grade. Students may repeat up to three different economics and business courses in their undergraduate career, but no single economics or business course can be repeated more than once. Exceptions are made only with the approval of the assistant dean.

Economics majors are eligible to participate in the business internship program. Students who plan to enter a graduate program after completion of the B.A. or B.S. degree or who have an interest in more extensive work in mathematics should consult with their advisors at an early date to explore alternatives and plan their curricula.

The economics minor program is for both business and nonbusiness students, with the exception of those majoring in business economics or economics. Students are required to complete at least 21 hours in economics, including ECO 210 and 211. Students must achieve a minimum 2.5 grade point average in these courses to receive the economics minor designation. Courses may not be taken on a credit/no credit basis.

Social studies group majors who choose an emphasis area in economics should make their economics course selections with the advice of the Economics Department.

Career Opportunities

Competence in economic analysis is good preparation for work in private enterprise, nonprofit firms, and government. It is recognized as an excellent preparation for M.B.A. and law programs.

Courses of Instruction

ECO 100 Current Economic Issues
ECO 200 Business Economics
ECO 210 Introductory Macroeconomics
ECO 211 Introductory Microeconomics
ECO 312 Applied Microeconomics
ECO 313 Business Cycles and Growth

Education

ECO 341 Economics of Business Strategy
ECO 342 Strategic Games
ECO 345 Environmental and Resource Economics
ECO 349 Emerging Markets Issues
ECO 350 Gender and Economics
ECO 355 Business, Antitrust, and Regulation
ECO 360 Employment, Wages, and Productivity
ECO 365 Comparative Economic Systems
ECO 369 International Economic Issues
ECO 380 Special Topics in Economics
ECO 414 Money and Banking
ECO 435 Urban Economics
ECO 436 Real Estate Economics
ECO 440 Public Finance
ECO 480 Econometrics and Forecasting
ECO 490 Economics Internship
ECO 495 Senior Economic Project
ECO 499 Independent Study and Research
ECO 542 Economic Reasoning
ECO 613 Business and Economic Forecasting
ECO 641 Business Economics and Strategy
ECO 642 Corporate Strategy for Business Cycles
ECO 645 International Economic Issues
ECO 646 Employment, Wages, and Productivity
ECO 680 Selected Topics in Economics

For a description of these courses, please see the Business section of this catalog.

The School of Education (ED)

Dean: Hagerty. Assistant Dean: Gallagher. Faculty: Abramson, Alston, Armstrong, Bair, Barnes, Carson, Chattulani, Chlebo, Collins, Cross, Doumanian, Fisher, Grant, Herrera, King, Konecki, Lancaster, Lancaster, Lin, Mack, Margulus, McCrea, Miller, Peck-Parrott, Pottorff, Pryor, Remenap, Reinken, Sannes, Storey, Topper, Westerhof-Shultz, Widdis; Visiting: Annis, Birch, Czuhai, Fortin, Fox, Haeberle, Hollums, Jansen, Mader, Melin, Olthof, Starkweather, Victor. Administration: Chair of Advanced Studies in Education: Annis. Director of Teacher Education: Chattulani. Student Services Coordinator: Dausman. Certification Coordinator: Eikenberry. Special Projects: Moore. Professional Development: Sowa.

The School of Education is an upper-division and graduate unit. Programs are approved by the Michigan Department of Education and accredited by the National Council for Accreditation of Teacher Education (NCATE).

The School of Education undergraduate division, Teacher Education, offers programs leading to the bachelor's degree and Michigan Provisional Certification. Certification is available in elementary general education, secondary general education, or elementary education with special education endorsement.

The School of Education graduate division, Advanced Studies in Education, offers the Master of Education degree (M.Ed.), Michigan Provisional and Professional Certification, certification renewal, and programs leading to approvals, endorsements, and professional development.

Education

Scholarships and Graduate Assistantships

Each year the School of Education assists students through the generosity of individuals and organizations dedicated to the preparation of educators. All awards require admission to Teacher Education or the M.Ed. in Advanced Studies in Education. Applications and criteria are available in School of Education offices.

Scholarships

- Greta and Arthur DeLong Scholarship for Teacher Education
- Faculty Teaching and Learning Center Scholarship for Minority Students in Education
- Dr. Faite R-P Mack African American Teacher Education Scholarship
- Joe E. Reid Memorial Scholarship
- Telephone Pioneers of America Scholarship

Graduate Assistantships

Graduate assistant positions are available to assist in the School of Education with research, writing data collection and analysis, grant proposal development, student services, computer projects, and serving on graduate committees.

Teacher Education (The Undergraduate Program)

The teacher preparation program reflects a belief in strong backgrounds in the liberal arts, familiarity with learning theory, and practical experience in diverse settings. Faculty from Teacher Education and from subject area concentrations teach courses and seminars in educational philosophy and psychology, methods and materials, and school organization and management.

Advising and Course Planning

Teacher preparation is an upper-division professional program. During the freshman and sophomore years students work toward fulfilling degree requirements, major and minor requirements, and prerequisite courses in education and psychology to permit application to Teacher Education. Students will have two advisors: a major advisor in the student's teaching major and an education advisor who will be assigned upon admission to the professional program. Transfer students follow the same dual advising process. Students are also welcome to consult with education faculty prior to admission. Students should discuss career and employment opportunities with their advisors and with the university career center. Candidates should also review policies in the Teacher Education Student Handbook, available in the GVSU Bookstore. In addition, advising materials and sample four-year course sequences are available in the Teacher Education office.

Initial Certification for Post-Degree Students

Candidates who already possess an approved baccalaureate degree may consider certification at either the undergraduate or graduate level. Because of the need for careful assessment in choosing the appropriate program, students should first contact Advanced Studies in Education to request background materials and register to attend one of the regularly scheduled information meetings.

Application Procedures

Deadlines for application to Teacher Education are September 15 for winter admission and field placement; February 1 for fall admission and field placement. Application packets are available in the School of Education. Packets must

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be complete at the time of application unless otherwise noted. Students who postpone admission must reapply and compete with the total application pool at the time of their reapplication.

Students should apply during the semester before they expect to do their first field placement (Education 330/350, 331, 332, 362), except for the following:

1. Hearing-impaired program candidates must apply during winter semester.
2. Secondary modern language majors must apply during winter semester.
3. Elementary art, physical education, and music majors must also apply for and take the accompanying Education 331 subject area seminar.

Minimum Admission Criteria

In keeping with National Council for the Accreditation of Teacher Education (NCATE) guidelines and unit policies, Teacher Education considers students who fulfill the following criteria. As a unit granting secondary admission, admission requirements are those that appear in the catalog at the time of application to the unit. *Unless otherwise noted, all requirements must be complete at the time of application.*

1. Academic Achievement. An established 2.8 GVSU GPA overall and in the major and minor. English, English/language arts and art education require a 3.0 major GPA. The minimum GVSU GPA must be established by the time of application.
2. Michigan Basic Skills Test. Acceptable test scores of 220 in each of the three areas of reading, writing, and mathematics as established by the Michigan Department of Education. Students may take the test during the semester of application
3. Prerequisite Courses. A GPA of 2.8 or better must be established in these five courses, with no grade lower than C.
 - a. ED 200 Introduction to Education.
 - b. ED 205 (CS 205) Computers in Education.
 - c. ED 225 Diversity in Education.
 - d. PSY 301 Child Development.
 - e. PSY 325 Educational Psychology

Additional prerequisites are required for elementary candidates:

- a. ENG 308 Teaching Reading (general education candidates only).
 - b. MTH 221 or 222 or 223 Mathematics for Elementary Teachers I or II or III.
4. Preprofessional Teacher Perceiver Interview. Appropriate commitment and interpersonal skills as demonstrated by interview scores of 27 or above (Predictive or High Predictive ranges). Candidates with lower scores will have the opportunity for further self-assessment, but program application may be delayed. Interviews should be scheduled a semester or two prior to application.
 5. Positive Recommendations. One from the major advisor/department; another from an individual who can address the candidate's ability as a prospective teacher.
 6. Experience. Documentation of 25 hours of experience with children or youth. The experience must be with the age group for which the applicant intends to

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seek certification. This would rule out, for example, working in the university tutoring center. Special education candidates must have experience with handicapped persons, e.g., camp experience, Special Olympics, respite care. For additional options, contact Volunteer GVSU.

7. Academic Progress. Completion of at least 60 semester credits and substantial progress in major coursework.
8. University Basic Skills. Completion of university course requirements or test equivalents in Writing 150 and Mathematics 110 or 115.
9. TB Test Report. Must be negative and current.
10. Felony Conviction Statement. Review procedures for those who have been convicted or pled no contest to a felony or certain misdemeanors are available from the School of Education. Conviction or a plea of no contest may cause the candidate to be denied for admission, field placement, or final certification.
11. Copies of degree analysis and current course listings.
12. Three copies of current resume.

All admissions decisions will be rendered by the Dean of the School of Education based on recommendations from the faculty.

Occasionally, an outstanding candidate who does not meet GPA requirements may be considered for alternate entrance based on other rigorous performance standards. Interested individuals may consult with the Director of Teacher Education.

Field Placement Requirements

Teacher Assisting (Education 330/350, 331, 332, 362:)

Upon admission to Teacher Education, the student will be placed in Teacher Assisting for the following semester, contingent upon an interview and acceptance by the school administrator. Students who postpone their entrance after admission must reapply as new applicants if they seek readmission. Field placements are generally made within a 40-mile radius from campus unless further placement is deemed necessary for suitable supervision and effective use of unit resources.

Student Teaching (Education 430/480, 431, 470, 471, 472).

1. Submission of completed application packet by September 15 for winter placement, February 1 for fall placement.
2. Completion of Teacher Assisting with a grade of B- or better and positive recommendations.
3. Continued 2.8 GPA overall and in the major, minor, and professional sequence.
4. Interview and acceptance by school administrator.

Students must inform the Admissions and Placement Coordinator if they must withdraw from a field placement course. Notification must be immediate and in writing. Failure to do so will result in removal from the program.

Exit Requirements

Recommendation for the Michigan Provisional Certificate requires the following:

1. Completion of degree requirements and major, minor, and professional program requirements.

Education

2. GPA of 2.8 overall and in the major, minor, and professional program.
3. Grades of B- or better and positive recommendations in professional fieldwork courses.
4. Passing scores on Michigan Subject Area Tests. Elementary candidates must pass the Elementary Test; if they also pass subject area tests in their academic areas or special education endorsement areas, these will also be added to their certificates. Secondary candidates must pass subject area tests in their major and minor.

Reading Requirement

Candidates recommended for Michigan Provisional or Professional Certification must show six credits in reading methodology for elementary certification, three credits for secondary certification. English 308 and Education 320 satisfy elementary requirements; Education 321 satisfies secondary requirements. Elementary special education candidates may substitute Education 460, 495, and 496 (a total of nine semester credits) in place of English 308, but not in place of Education 320.

Elementary Teacher Certification (General Education)

Michigan Elementary Provisional Certification allows the holder to teach any subject in kindergarten through fifth grade; major and minor subjects in sixth through eighth; any subject in kindergarten through eighth in self-contained classrooms. Art, music, and physical education majors are endorsed K-12 in their major. In addition to degree requirements, candidates must complete the following:

1. Teaching Major—Elementary Certification.

The 12 areas approved by the State of Michigan at Grand Valley State University are listed below. Specific requirements for each are outlined in this catalog and must be planned with the major advisor.

Humanities: Art for K-12, English, English/Language Arts (Group Major) French, Spanish, Music for K-12. **Science and Mathematics:** Biology, Science (Group Major), Mathematics, Physical Education for K-12. **Social Sciences:** History, Social Studies (Group Major).

Teaching minors may also be earned in Health Education and Mathematics.

2. Elementary Teaching Minor—Elementary Certification.

The 21–25 credit elementary teaching minor develops competencies across the entire elementary curriculum.

- a. ENG 308 Teaching Reading: The Necessary Skills.
- b. MTH 221 and MTH 222, or MTH 223, Mathematics for Elementary Teachers I and II, or III. (Note: Students who entered GVSU prior to Fall 1996 need complete only one of these courses.)

Also select one from each of the following except the major area:

- c. *Fine Arts:* Art 230 or Music 350.
- d. *Language Arts:* English 219, 309, 310, or any foreign language.
- e. *Physical Education/Theater:* Physical Education 305 or Children's Theater 366.

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f. *Laboratory Science*: Fulfillment of at least one of the Natural Science requirements as outlined in the General Education curriculum. This course must also fulfill the laboratory component. Especially suitable for elementary teachers are Biology 107, Chemistry 201, Physics 201, Geology 201.

g. *Social Science*: Economics 210, 211, History 203, 204, 205, 206, Political Science 102, Sociology 280, or Geography 235.

3. Professional Program—Elementary Certification.

Candidates must complete the following 39-credit program. At least one field semester must be done in a multicultural setting.

Prior to admission to Teacher Education:

- a. ED 200 Introduction to Education.
- b. ED 205 (CS 205) Computers in Education
- c. ED 225 Diversity in Education.
- d. PSY 301 Child Development.
- e. PSY 325 Educational Psychology

First semester of admission to Teacher Education:

- f. ED 330/350 Elementary Teacher Assisting. Art, music, and physical education majors also take the ED 331 seminar.
- g. ED 310 Managing Classroom Environments (GVSU entrants Fall 1996 or later).
- h. ED 320 Materials and Methods in Elementary Reading.

Second semester of admission to Teacher Education:

- i. ED 430/480 Elementary Student Teaching.

Secondary Teacher Certification (General Education)

Michigan Secondary Provisional Certification allows the holder to teach subject area majors and minors in the seventh through twelfth grades. Art, music, physical education, and computer science majors are endorsed K-12 in their major. In addition to degree requirements, candidates must complete the following areas:

1. Teaching Major—Secondary Certification.

The 16 areas approved by the State of Michigan at GVSU are listed below. Specific requirements are outlined in this catalog and must be planned with the student's major advisor.

Humanities: Art for K-12, English, English/Language Arts, French, German, Spanish, Music for K-12. **Science and Mathematics:** Biology, Chemistry, Computer Science for K-12, Geology/Earth Science, Mathematics, Physical Education for K-12, Physics. **Social Sciences:** History, Social Studies.

2. Teaching Minor—Secondary Certification.

The 19 areas approved by the State of Michigan are listed below. Specific requirements are outlined in this catalog and must be planned with the student's advisor. Music majors should consult with their advisors for minor requirements.

Humanities: Art, English, French, German, Music, Spanish. **Science and Mathematics:** Biology, Chemistry, Computer Science, Geology/Earth Science, Health Science, Mathematics, Physical Education, Physics. **Social Sciences:** Economics, Geography, History, Political Science, Psychology, Sociology.

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3. Professional Program—Secondary Certification

Candidates must complete the following 39-credit program. At least one field semester must be done in a multicultural setting.

Prior to admission to Teacher Education:

- a. ED 200 Introduction to Education.
- b. ED 205 (CS 205) Computers in Education
- c. ED 225 Diversity in Education
- d. PSY 301 Child Development.
- e. PSY 325 Educational Psychology

First semester of admission to Teacher Education:

- f. ED 331 Secondary Teacher Assisting.
- g. ED 310 Managing Classroom Environments (GVSU entrants Fall 1996 or later).
- h. ED 321 Reading in the Content Area.

Second semester of admission to Teacher Education:

- i. ED 431 Secondary Student Teaching.

Elementary Teacher Certification (Special Education Endorsement)

Michigan elementary teacher certification with special education endorsements allows the holder to teach the special education endorsement areas in kindergarten through twelfth grade. It also permits teaching any subject in kindergarten through fifth grade or any subject in kindergarten through eighth grade in self-contained classrooms.

Because of the complexity of the program, students must meet with their psychology advisor early and consult with advisors regularly. In addition to degree requirements, special education candidates must complete the following major, minor, professional program and endorsement requirements. Students must complete at least one field placement in a multicultural setting. Course sequences appear at the end of this section.

1. Psychology/Special Education Major.

The 36-credit psychology/special education major is outlined in the Psychology section of this catalog and must also be planned with the student's psychology advisor.

- PSY 301 Child Development
- PSY 302 Psychology of Adjustment
- PSY 304 Psychology and Education of the Exceptional Child
- PSY 303 Abnormal Behavior
- PSY 325 Educational Psychology
- PSY 452 Counseling: Theories and Application
- ED 332 Special Education Pre-Teaching
- ED 361 Principles, Processes, and Methods in Special Education
- ED 495 Diagnostic and Interpretive Procedures
- ED 496 Remedial Procedures

2. Elementary Teaching Minor.

The 24–26 credit elementary teaching minor develops teaching competencies across the curriculum. It consists of the following courses:

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ED 200 Introduction to Education
ED 320 Materials and Methods in Elementary Reading
ED 460 Language and Reading Development
MTH 221 and MTH 222, or MTH 223 Mathematics for Elementary Teachers I and II, or III. (Note: Students who entered GVSU prior to Fall 1996 need complete only one of these courses unless the student is a Group Science major.)
ART 331 Art in Special Education
SOC 280 Social Problems
ED 205 (CS 205) Computers in Education

3. Professional Program/Special Education. Endorsements.

The 54–63 credit professional program includes student teaching in general elementary education and completion of two of the following three special education endorsement areas. Successful completion of ED 430/480 is prerequisite to any special education student teaching.

ED 225 Diversity in Education
ED 310 Managing Classroom Environments (GVSU entrants Fall 1996 or later)
ED 430/480 Elementary Student Teaching

Teaching the Mentally Impaired:

PSY 326 Mental Retardation
ED 461A Curriculum for Special Education: Mentally Impaired
ED 471 Directed Teaching: Mentally Impaired
ED 496A Remedial Procedures: Mentally Impaired

Teaching the Emotionally Impaired:

PSY 310 Behavior Modification
ED 461B Curriculum for Special Education: Emotionally Impaired
ED 472 Directed Teaching: Emotionally Impaired
ED 496B Remedial Procedures: Emotionally Impaired

Teaching the Hearing Impaired:

ED 352 Language and Communication
ED 362 Preteaching, Hearing Impaired
ED 450 Audiology and Anatomy of Speech and Hearing Process
ED 461C Curriculum for Special Education: Hearing Impaired
ED 470 Directed Teaching: Hearing Impaired
ED 496C Remedial Procedures: Hearing Impaired

Special Education Course Sequence

Special Education students taking 24 credits of fieldwork and coursework during the extended winter semester (January-June) may not take additional credits during that time. Other requirements must be completed prior to or after the extended winter semester.

Prior to admission to Teacher Education:

ED 200, ED 225, ED 205 (CS 205), PSY 301, PSY 325

EI/MI winter admittees:

Winter: ED 332, 310, 361, 460, 495

Spring: ED 496 A, B

Fall: ED 430, 480, 320

Winter: ED 471, 472, 461 A, B

EI/MI fall admittees:

Fall: ED 332, 310, 361, 460, 495

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Winter: ED 430, 480, 320

Spring: ED 496 A, B

Fall: ED 471 or 472 (if desired, 10 weeks)

Winter: ED 471 or 472 (if desired, 10 weeks) or ED 471 and 472 (20 weeks)

HI/EI or HI/MI Admittees:

Fall: ED 362, 310, 352, 450, 460

Winter: ED 332, 361, 495, 496 C

Spring: ED 496 A or B

Fall: ED 430, 480, 320

Winter: ED 471 or 472, ED 461 A or B, ED 470, and ED 461 C

Advanced Studies in Education (The Graduate Program)

The graduate program of the School of Education offers the Master of Education degree (M.Ed.), Michigan Provisional Certification, Michigan Professional Certification, Michigan Administrator Certification, and programs leading to certificate renewals, certificate endorsements, special education approvals, and professional development. In addition, Advanced Studies in Education offers the following concentrations: Biology, Physics, English, History, Mathematics, and College Student Affairs Leadership.

The major function of the graduate program is to create opportunities for professional renewal and development. The graduate program attempts to increase knowledge and understanding of the learning process and the repertoire of teaching methods and skills. The graduate program offers the M.Ed. degree in three major areas: general education, reading, and special education. Most graduate program faculty have offices in the Eberhard Center in Grand Rapids.

Academic Policies. All students seeking a degree, certification, additional endorsement, special education approval, or a change in certification status must establish a planned program of professional study with an Advanced Studies in Education advisor that specifies program objectives, competencies, and course requirements. Degree candidates must complete the degree within eight years from the first GVSU course. A maximum of nine credits may be transferred toward the degree from other institutions. A maximum of 12 credits earned under nondegree status may be applied toward the degree. Applicants for degree, endorsement, or approval must maintain a 3.0 GPA. Endorsement, approval, and professional certification programs require that at least half the credits be earned at GVSU. Individuals who have been convicted of or pled no contest to a felony or certain misdemeanors may be denied admission, field placement, or final certification. Students should familiarize themselves with all policies contained in the university catalog and in SOE Policies and Procedures, available in the graduate office.

Program Areas

Master of Education (M.Ed.). To obtain the M.Ed., students must successfully complete the university requirements for a graduate degree, the School of Education's foundations requirements, and the requirements in one area of emphasis under a degree area (General Education, Reading, or Special Education).

Emphasis areas for the **M.Ed in General Education** include Adult and Higher Education, Early Childhood Education, Educational Leadership, Educational Technology, Elementary Education, Gifted and Talented Education, Middle and High School Education, and Teaching English to Speakers of Other Languages. (Middle

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and High School Education also offers subject matter concentrations in Biology, English, History, Mathematics, or Physics. Adult and Higher Education offers the above subject matter concentrations and also a concentration in College Student Affairs Leadership.)

Emphasis area for the **M.Ed. in Reading** is Reading/Language Arts.

Emphasis areas for the **M.Ed in Special Education** include Learning Disabilities, Preprimary Impaired, and Special Education Administration.

Certification, Endorsement, Approval, and Emphasis Programs. Programs are also available in the following areas:

1. Michigan Provisional Certification
2. Michigan Professional Certification
3. Early Childhood, Elementary, Middle Level, and Secondary Endorsement.
4. Reading Endorsement: Elementary, K-12.
5. Library Media Endorsement: K-12.
6. Special Education Endorsement: Learning Disability, Emotional Impairment, Mental Impairment, Pre-Primary Impairment.
7. Administration: Elementary, Secondary, Central Office, Superintendent.
8. Subject area majors and minors, usually at the undergraduate level.
9. Special Education Approval: Directors and Supervisors.

Graduate Teacher Certification. Candidates who already possess an approved baccalaureate degree may consider certification at either the undergraduate or graduate level. Because of the need for careful assessment in choosing the appropriate program, students should first contact Advanced Studies in Education to request background materials and register to attend one of the regularly scheduled information meetings. Candidates considering the graduate program must be able to undertake full-time study for approximately one calendar year. Minimum admission requirements for the graduate certification program include

1. Completion of the baccalaureate degree from a regionally accredited institution at least three years prior to application with a GPA of 3.0 or higher for the final 60 semester credits.
2. Possession or completion of a teachable major with a GPA of 3.0 or higher. Secondary candidates must also possess or complete a teachable minor before final certification.
3. Successful completion of Michigan Basic Skills Test.
4. Successful completion of Michigan Subject Area Test in teachable major.
5. Documentation of 25 hours age-appropriate volunteer experience with children or youth.
6. Personal interview.
7. Negative TB test report.
8. Signed statement regarding criminal activity.
9. Completion of EDG 618 or competency portfolio prior to program completion (Microcomputers and Education).
10. Admission to M.Ed. degree-seeking status.
11. Completion of application materials for graduate teacher certification program.

Candidates will be eligible for Michigan Provisional Certification after they successfully complete coursework, maintain a 3.0 GPA, and complete certain additional state requirements. These requirements include the Michigan Elementary

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Test for elementary candidates, or the completion of a teachable minor and the Michigan Subject Area Test in the minor for secondary candidates.

Admission to the Master's Degree in Education (M.Ed.)

In addition to the requirements listed in the Admissions section of the catalog, applicants must have an undergraduate GPA of 3.0 or higher calculated on the last 60 credits of undergraduate work taken from a regionally accredited college or university. Applicants must submit an application essay, three professional or academic recommendations on designated forms, and copies of teaching and/or administrative certificates or equivalents. (Note: Graduate Teacher Certification and College Student Affairs Leadership do not require the teaching certificate. Others will be considered on an individual basis if their career goals and educational objectives are consistent with the program.)

Applicants with less than a 3.0 GPA calculated on the last 60 credits of undergraduate work may meet alternate criteria for admission, such as a prior master's degree from a regionally accredited institution, acceptable test scores on the GRE General Test, or outstanding performance in specified courses.

Admissions decisions will be made by the Dean of the School of Education, based on recommendations of the faculty.

M.Ed.—The Foundations Program

Each candidate for the M.Ed. degree must complete nine semester hours in foundation courses, which may be required or selected from the following areas: psychology of education (one course)—ED 650, 651, 652, 653; research and evaluation (one course)—ED 660, 661; and issues in education (one course)—ED 670, 671, 672. Students are urged to partially satisfy program requirements by enrolling in a course designed to expand their knowledge of diverse student populations.

M.Ed.—General Education

The general education programs leading to the M.Ed. degree are designed to help experienced educators increase their professional and academic knowledge and skills and prepare for special types of education service.

The areas of study reflect the importance of increased breadth and depth of understanding of theoretical constructs and existing problems in general education. Breadth is provided by the foundation areas. Depth is provided by the emphasis courses, electives, and research applications. Areas of emphasis include

Adult and Higher Education. This program is designed for persons who wish to develop their skills and competencies in working with adult and higher education students and for individuals who wish to enter student affairs administration in higher education. The program is also useful for those interested in learning about adult and higher education. Students are required to complete a minimum of 33 semester hours. Degree requirements, in addition to foundation courses include two courses selected from EDG 648, 649, or 650; two courses selected from ED 630, 631, 633, 635, EDG 618, 651, 652, 685L, or EDR 629; nine hours of approved electives; and EDG 695I. **Biology, English, History, Mathematics, or Physics** concentrations within the Adult and Higher Education emphasis require, in addition to foundation courses, two courses from ED 630, EDG 648, 649, 650, and EDG 695 I, and 15 semester hours in the selected subject area approved by

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subject area and education advisors. (See course listings under Biology, English, History, Mathematics, and Physics.) **College Student Affairs Leadership** concentration requires, in addition to foundation courses, EDG 648, 649 and 695I; EDG 647, 651, 652, 653, 654, 655, and 685L; and six semester hours of electives. (EDG 647 may substitute for foundations area one with advisor approval.)

Early Childhood Education. This program prepares teachers, supervisors, and directors in preschools, day care centers, child development centers, Head Start programs, and kindergartens, as well as researchers and program specialists in the field for general and high-risk students.

Students are required to complete a minimum of 33 semester hours. **M.Ed** requirements, in addition to the foundation courses, include EDG 610, 611, 612, 613, and EDS 646; one course from either EDS 647 or ED 634; one elective course; and EDG 695A. Students desiring only the **ZA**, or **Early Childhood Endorsement**, must complete the following program requirements, for a total of 24 semester hours: EDG 610, 611, 612, 613, EDS 646, 647 or ED 634, EDG 685D; have elementary certification, pass the Michigan Subject Area Test, and maintain a 3.0 GPA.

Educational Leadership. This performance-oriented program emphasizes research, theory, and practice in such areas as: effective leadership, strategies for planning and developing curriculum, supervising employees, school improvement, personnel administration, law, finance, and related topics. Many courses are offered in the weekend leadership academy. **M.Ed** requirements in addition to the foundation courses, are EDG 685F or 685I or 685G or 685H, EDG 665, 666, 668, 669, 670, and 695F. Participants select one course from the following: EDG 667 or 671 or ED 633.

Administrator programs for elementary principal, secondary principal, central office, and superintendent are available. Consult an advisor for an appropriate planned program.

Educational Technology. This program prepares teachers, computer coordinators, and school library/media specialists to use technology in elementary and/or secondary schools. Content of the program includes the educational applications of microcomputers, CD-ROM, videodiscs, and other related technologies. Courses concentrate on hardware and software, software evaluation, instructional materials acquisition and utilization, managerial use of technology, and media center development/management. Students may choose between two **M.Ed.** concentrations. Degree requirements for option A, Computer/Technology Services, include, in addition to the foundations courses, ED 630, EDG 618, 619, 620, 621, six credits of approved electives, and EDG 695B. Degree requirements for option B, School/Library Media Services with Library Media Endorsement, include, in addition to the foundations courses, ED 630, EDG 618, 619, 621, EDR 624 or EDR 625, EDG 622, 623, 624, 625, 685J, and 695B. Students seeking only the **Library Media Endorsement** complete ED 630, EDG 618, 619, 621, EDR 624 or EDR 625, EDG 622, 623, 624, 625, and 685J. Endorsement candidates must also pass the Michigan Test for Teacher Certification and maintain a 3.0 GPA.

Elementary Education. This program helps teachers continue their professional growth and advance in competence in their work in regular elementary school classrooms. The program may be used to develop an academic specialization of work with elementary school children or to explore a field of specialization for present or future professional goals. Students are required to complete a minimum

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of 33 semester hours. In addition to the foundation courses, requirements for the **M.Ed.** include ED 630, EDG 611 and EDR 622; two courses from ED 633, 635, EDG 618, 630, 631, 632, 633, 641, 667, EDR 621, 624, 628, and EDS 637; two electives/workshops; and EDG 695C. **Elementary Endorsement** students must possess secondary certification; take EDG 618, 630, 631, 632, 633, 685A, EDR 621, 622, and EDR 624 or 628; receive positive recommendation; maintain a 3.0 GPA; and pass the Michigan Elementary Test. **Elementary Certification** candidates must first be admitted to Graduate Teacher Certification; then complete 36 credits: ED 650, 652, EDG 610, 630, 631, 632, 685A, EDR 622, 627, EDG 633 or EDR 624; maintain a 3.0 GPA; and pass the Michigan Elementary Test prior to certification. Completion of 15 additional credits will fulfill M.Ed. degree requirements: two remaining foundations courses, ED 630, EDG 611, and EDG 695C.

Gifted and Talented Education. This program equips classroom teachers, specialists in gifted and talented education, consultants, and supervisors with the theory and practical skills necessary to teach gifted and talented students. The program focuses on assessment and diagnostic instruments, methodology, materials, curriculum, and administration. Students are required to complete a minimum of 33 semester hours. **M.Ed.** requirements include, in addition to the foundation courses, ED 630, EDG 640, 641, 642, 685C; two electives/workshops; and EDG 695D.

Middle and High School Education. This program is designed for teachers who wish to develop their skills and competencies in teaching middle and high school students. Students are required to complete a minimum of 33 semester hours. In addition to foundation courses, requirements for the **M.Ed.** include two emphasis area courses selected from EDG 635, 636 and ED 630; two supplemental courses selected from ED 631, 632, 633, 635, EDG 618, 630, 631, 632, 633, 641, 649, 671, 685B, 685E, EDR 623, 625, 627, 628; nine credits of electives; and EDG 695H. **Biology, English, History, Mathematics, or Physics** concentrations within the Middle and High School Education emphasis require, in addition to foundation courses, two emphasis area courses from EDG 635, 636, and ED 630; EDG 695H; and at least 15 approved credits in the subject matter. (See course listings under Biology, English, History, Mathematics and Physics.) **Middle Level Endorsement** candidates must have Michigan elementary or secondary certification; complete ED 632, EDG 635, 636, 685E; complete two supplemental courses; have or complete two subject area endorsements; obtain positive recommendations; maintain a 3.0 GPA; and pass the appropriate Michigan Tests for Teacher Certification. (Because of new state requirements for middle level endorsements, candidates must consult with an advisor before beginning this program.) **Secondary Endorsement** candidates must have Michigan elementary certification; possess or complete a secondary teachable major or minor; complete ED 630 or EDG 636, and EDG 618, 635, 685B, and EDR 623; obtain positive recommendations; maintain a 3.0 GPA, and pass appropriate Michigan Subject Area Tests if adding new subject areas. **Secondary Certification** candidates must first be admitted to Graduate Teacher Certification, then complete 24 credits from ED 650, 652; EDG 610 or 635; EDR 623, EDG 636, and EDG 685B (three and six credits). Candidates must also maintain a 3.0 GPA, possess or complete a secondary teachable minor, pass the Michigan Subject Area test in the minor, and obtain positive recommendations. Completion of 18 additional credits will fulfill M.Ed. degree requirements: two remaining foundation courses; EDG 695H; and nine credits in emphasis area, supplemental, or elective courses.

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Teaching English to Speakers of Other Languages (TESOL). This program provides training in linguistics principles and their applications; theories of language acquisition; issues of language and culture; methodology and curriculum design; assessment of second language competencies; and critical issues in multilingual, multicultural education. In addition to the foundation courses, **M.Ed.** requirements include ENG 660, 664, 665, 668, ED 631, 633, EDG 685K and 695G. Students desiring only the **ESL Endorsement (K–8 or 7–12)** must complete 21 credits from ENG 660, 664, 665, 668, ED 631, 633, and EDG 685K; have elementary or secondary certification; pass the Michigan Subject Area Test; and maintain a 3.0 GPA.

M.Ed.—Reading/Language Arts

The reading/language arts program leading to the M.Ed. degree provides elementary and secondary teachers with the appreciation, theory, and practical skills needed to teach various areas of reading and language arts. The program is helpful for classroom teachers who want to expand their skills in dealing with students in language arts programs as well as for other professionals who deal with problems of reading adjustment. Students are required to complete a minimum of 33 semester hours. **M.Ed.** requirements, in addition to the foundation courses, include all of the following: EDR 621, 622 or 623, 624 or 625 and 628. In addition, students must take at least two courses from the following: ED 631, 633, EDG 641, EDR 626, 627, 685A, EDS 637, one elective, and EDR 695.

K-12 Reading Endorsement

The K-12 reading endorsement is a 30-semester-hour program leading to state certification in reading at the elementary, middle, and high school levels. It will enable the bearer to be employed as a school reading consultant/teacher consultant, to teach in special remedial or developmental programs, and to teach reading as a special subject. The K-12 endorsement may be added to either the elementary or secondary certificate. Requirements include the following courses: EDR 621, 622, 623 or 627, 624 or 625, 626, 628, 685A, and EDR 695. In addition, students must take at least two of the following courses: ED 631, 651, 652, 653, 661, 670, 672, EDG 641, and EDS 637. Optional elective courses may be substituted with advisor approval. Candidates adding a new endorsement must pass the Michigan Subject Area Test and maintain a 3.0 GPA. (The State of Michigan has announced plans to eliminate the K-12 Reading Endorsement as of December 2001, and to be replaced it with a Reading Specialist Endorsement. Students wishing the K-12 Reading Endorsement should complete coursework and state testing by that time.)

Elementary Reading Endorsement

The elementary reading endorsement is a 21-semester-hour program leading to state certification in reading in the elementary school. It will enable the bearer to be employed as an elementary school reading consultant/teacher consultant and to teach in special remedial or developmental programs. The elementary endorsement may be added only to an elementary certificate. Requirements include the following courses: EDR 621, 622, 624, 626, 628, and 685A. In addition, students must take at least one course from the following: ED 631, EDR 623, 627, and EDG 641. Optional elective courses may be substituted with advisor approval. Candidates adding a new endorsement must pass the Michigan Subject Area Test and maintain a 3.0 GPA.

M.Ed.—Special Education

Grand Valley's graduate division requires teachers applying for entrance into the graduate special education program to hold at least one endorsement in special education or to elect a dual endorsement program leading to the completion of two endorsements in special education.

Applicants who wish to be admitted to the graduate special education program must possess a valid teaching certificate. All degree-seeking students are required to take a minimum of 33 semester hours, including foundations and emphasis courses. Students who are degree seeking and are working for special education endorsement are required to take additional courses beyond the normal requirements for the master's degree. Students who want to enroll in a master's degree program and are not seeking special education endorsement should select a master's degree emphasis program and consult with a special education graduate advisor to develop a program consisting of foundations and emphasis coursework, including research applications.

Learning Disabilities. In addition to foundation courses, M.Ed. requirements include EDS 636, 637, 638, 640; nine semester hours from EDS 626, 627, 628, 629, 666, 670, EDG 618, 619, or other options with advisor approval; and EDS 695A. Students seeking only the **Learning Disabilities Endorsement (K-12)** complete ED 653, EDS 627, 629, 636, 637, 638, 640 and EDS 685H (six credits) and three semester hours from EDS 626, 628, 666, 670, EDG 618, 619, or other options with advisor approval. Candidates adding a new endorsement must pass the Michigan Subject Area Test and maintain a 3.0 GPA.

Preprimary Impaired Program (ZA/PPI). The Preprimary Impaired Program (PPI) prepares teachers and supervisors in the processes of screening, diagnosing, and designing individualized instructional programs for young children with developmental and handicapping problems. Students are required to complete a minimum of 33 semester hours. In addition to the foundation courses, M.Ed. requirements include EDS 647, EDG 610, 611, 612, 613, EDS 646; one elective course; and EDG 695A. In addition, program prerequisites include one endorsement in special education and completion of a language development course (EDS 637, ED 460, or equivalent). Students seeking recommendation for the **ZA/PPI Approval** must complete the following program requirements for a total of 24 semester hours: EDG 610, 611, 612, 613, EDS 646, 647, EDS 685J; have one additional endorsement in special education; and have elementary certification. Candidates adding a new endorsement must pass the Michigan Subject Area Test and maintain a 3.0 GPA.

Special Education Administration). Students wishing to complete the M.Ed. in special education administration must take the following, in addition to foundations courses: EDG or EDS 666, EDS 665, 667, 675, EDG 668, 670, EDS 685 A, EDS 695C, and three credits from EDS 668, 669, 670 or EDG 680.

Internships

Students graduating from the Grand Valley State University undergraduate special education program may apply for a full-year paid teaching internship in special education. Students take EDS 638 and 686 for a total of 15 semester hours. Interns may apply 15 hours of credit generated from this internship to the L.D. master's degree program. Students involved in the master's level internship program will

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be required to complete an additional 24 hours of coursework, planned with an advisor, for the master's degree program in learning disabilities.

Because it is necessary to limit the numbers of students in this program and because paid teaching internship positions must be arranged in the public schools, students must be nominated by the GVSU faculty in order to be accepted as intern teachers. Students must pay tuition and fees for this program.

Supervisor/Director Approval Programs

Students seeking special education approval as supervisor or director must complete an additional application for admission to the approval program. The **Special Education Supervisor** approval program requires the successful completion of ED 670, EDS 665, 666, 667, 668, 669, 670, 675, EDG 668, 670, EDG 680 or EDS 673, and EDS 685A, passing of the supervisor's competency exam, and a minimum 3.0 GPA. The **Special Education Director** approval program includes all courses in the special education supervisor's program plus EDS 671, 672, 674, EDG 669, six credits of EDS 685B, passing of the director's competency exam, and a minimum 3.0 GPA.

Special Education Single Endorsement Options. Teachers who already hold one endorsement in special education may elect to add endorsement in the areas of Emotional Impairment or Mental Impairment. (For LD endorsement and PPI approval programs, see sections above.)

Mental Impairment (K-12). Endorsement prerequisites include EDS 550 (six credits); ED 652, 653, 661; EDG 610; ED 633 or EDS 637; or equivalents. Courses include ED 634, 650; EDS 601A, 601B, 618, 620, 629, 636, 638; and EDS 685E or 685F (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Emotional Impairment (K-12). Endorsement prerequisites include ED 200; PSY 301, PSY 304; EDS 550 (six credits); or equivalents. Courses include ED 650 or PSY 310, SW 622 or PSY 303; ED 660 or 661; EDS 610, 611, 627, 629, 636, 638; and EDS 685C (six credits). Candidates adding a new endorsement must pass the Michigan Subject Area Test and maintain a 3.0 GPA.

Special Education Dual Endorsement Options (For Certified General Education Teachers)

For those students who do not already have an endorsement in one area of special education, we offer dual endorsement sequences leading to special education endorsement in two areas of special education. These sequences do not lead to a master's degree. Endorsement will not be granted in only one area.

Students must select two endorsement areas and have a planned program prepared by an advisor. Students are advised to take ED 652, EDS 636 if required, and EDS 550 first. To be admitted to the following dual sequences, the applicant must possess a valid Michigan teaching certificate and have completed at least one year of successful classroom experience in a public school.

Students entering this program are advised that their initial special education practicum must be successfully completed during the regular school year for a minimum of 10 weeks under an appropriately endorsed supervising teacher. It will not be possible to complete the initial program in a summer placement that is less than 10 weeks. It will be possible to complete EDS 550 (Pre-teaching) and the second EDS 685 in a summer experience if such placements are available.

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Students must have completed all prerequisite coursework and meet practicum application deadlines.

Students in this program must apply and be accepted as degree-seeking students no later than the completion of 12 semester hours, even though this program need not lead to a master's degree.

Learning Disabilities and Mental Impairment (K-12). Endorsement courses include EDS 550 (six credits); ED 634, 650, 652, 653, 661, EDG 610, EDS 601A, 601B, 618, 620, 627, 629, 636, 637, 638, 640; EDS 685E or EDS 685F (six credits); and EDS 685H (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Learning Disabilities and Emotional Impairment (K-12). Endorsement prerequisites include ED 200 and PSY 301 or equivalents. Courses include EDS 550 (six credits); PSY 310 or ED 650; ED 652, 653, 660 or 661; EDS 610, 611, 627, 629, 636, 637, 638, 640; PSY 303 or SW 622; EDS 685C (six credits); EDS 685H (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Mental Impairment and Emotional Impairment (K-12). Endorsement prerequisites include ED 200, PSY 301, PSY 304, EDS 550 (six credits), or equivalents. Courses include ED 650 or PSY 310; SW 622 or PSY 303; ED 634, 652 and 661; EDG 610; EDS 601A, 601B, 610, 611, 618, 620, 627, 629, 636, 637, 638, EDS 685C (six credits) and EDS 685E or F (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Learning Disabilities (K-12) and Preprimary Impaired. Endorsement and approval prerequisites include elementary certification. Courses include ED 652, 653, EDS 550 (six credits) 627, 629, 636, 637, 638, 640, 646, 647, EDG 610, 611, 612, 613; EDS 685H (six credits) and EDS 685J (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Mental Impairment (K-12) and Preprimary Impaired (Early Childhood/Preprimary Impaired). Endorsement and approval prerequisites include elementary certification, ED 633 or EDS 637; ED 653 or EDS 627; ED 652, 661; EDG 610; EDS 550 (six credits); or equivalents. Courses include ED 634, 650; EDG 610, 611, 612, 613; EDS 601A, 601B, 618, 620, 629, 636, 638, 646, 647; 685J (six credits), and EDS 685E or F (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Emotional Impairment (K-12) and Preprimary Impaired. Endorsement and approval prerequisites include elementary certification and EDS 637 or equivalent. Courses include PSY 310 or ED 650; ED 652, 653, 660 or 661; EDS 550 (six credits); EDS 610, 611, 627, 629, 636, 638, 646, 647; EDG 610, 611, 612, 613; PSY 303 or SW 622; EDS 685C (six credits) and EDS 685J (six credits). Candidates adding new endorsements must pass Michigan Subject Area Tests and maintain a 3.0 GPA.

Michigan Professional Certification

Candidates for Michigan Professional Certification must fulfill the following requirements:

1. Hold a Michigan Provisional Certificate.
2. Teach successfully for three years after the issuance of the provisional certificate and according to its validity.

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3. Show evidence of coursework in reading methods: six semester credits for elementary, three for secondary.
4. Earn 18 semester credits after the issuance of the provisional certificate in a planned course of study. (Applicants with an earned master's degree or higher are not required to complete the 18-credit planned program.)

If necessary, the Provisional Certificate may be renewed for a three-year period upon completion of ten credits from the 18-credit planned program. A second three-year renewal is available upon completion of all 18 credits.

Validity of Professional Certification. The Michigan Professional Certificate (earned after June 30, 1992) must be renewed every five years upon completion of six semester credits or the equivalent in state board approved continuing education units, or any combination thereof. (Three continuing education units are the equivalent of one semester credit.) Courses used for renewal of Professional Certification need not be in a planned program but must be taken at an approved education institution and must be taken within the five-year period.

Applying for Certification and Endorsements. Candidates should make application with the Records Office at the beginning of the semester in which they expect to complete all requirements. They should also be certain that they have an approved planned program, have met all university requirements, and have transcripts and other documentation on file in the Records Office.

Planned Program Options for Professional Certification

The following options for completing the required 18-semester-hour planned program beyond the bachelor's degree for the professional certificate have been approved by the School of Education. Note: Students returning to teaching after an absence should also consult with Career Services to discuss credentials and educational offerings that will prepare them to meet employment needs.

Option 1. Master's Degree.

If the 18 semester hours are part of a master's degree program in an approved teacher education institution, the applicant for a professional certificate must submit a list of courses to be signed by an appropriate degree advisor. The planned program requirements will be met by following coursework prescribed for the M.Ed. No further documentation is necessary.

Option 2. Additional Major or Minor.

The applicant may earn additional endorsements consisting of at least 18 hours within the School of Education or with approved subject area majors or minors. Program advisors must approve all additional endorsements. Applicants adding additional subject area endorsements must also pass Michigan Subject Area tests.

Option 3. Additional Certificate Level.

Applicants may earn endorsements allowing them to teach at a new level. See the following areas in the Education section of this catalog for endorsements of 18 credits or more that will expand the certification level.

- a. Early Childhood Endorsement (see M.Ed. Early Childhood Education)
- b. Elementary Endorsement (see M.Ed. Elementary Education)
- c. Middle Level Endorsement (see M.Ed. Middle and High School Education)
- d. Secondary Endorsement (see M.Ed. Middle and High School Education)

Option 4. Professional Development.

Candidates choosing an 18-credit professional development program should plan their program with the School of Education Certification Coordinator. Courses may be chosen from professional education or from the candidate's major or minor. No more than one elective course may be applied without advisor approval.

Reading Requirement

All candidates for provisional or professional certification must show evidence of coursework in reading methods, six credits for elementary, three for secondary. It is recommended that students have their School of Education advisor establish these courses when planning their official program of study if they have not yet met the requirement.

Courses of Instruction

ED 200 Introduction to Education. Designed to acquaint students with the education profession. General knowledge of public schools and the historical, sociological, multicultural, philosophical, financial, and legal foundations of American education. This course will foster personal reflection, inquiry, and values clarification. Classroom observations required. Prerequisite: Freshman year, second semester. Three credits. Offered fall and winter semesters. Formerly ED 300.

ED 205 (CS 205) Computers in Education. Introduction to computers and their use in the classroom. Focus on the use of the computer as an instructional and managerial tool. Evaluation of software and the future impact of computers on education. Recommended prerequisite: ED 200 (3-0-0). Three credits. Offered fall and winter semesters.

ED 225 Diversity in Education. A study of the implications of inclusionary environments for students with exceptional needs and individual differences, including race, class, culture, and gender. Emphasizes diversity in educational environments, student learning styles, and instructional strategies. Classroom observations required. Prerequisites: 200, or may be taken concurrently. Fulfills U.S. Diversity requirement. Three credits. Offered fall and winter semesters.

ED 310 Organizing and Managing Classroom Environments. Current theory and methodology involved in establishing order and facilitating learning are emphasized. Emphasis is on understanding personal/psychological/learning needs, establishing positive relationships, using instructional methods that meet student needs and maximize on-task behavior. Applications to educational settings are required. Prerequisites: Admission to the School of Education. Taken concurrently with ED 320 and 330/350 (elementary general education) or 321 and 331 (secondary general education) or ED 332, 361, 460 and 495 (special education). Three credits. Offered fall and winter semesters.

ED 320 Materials and Methods in Elementary Reading. Materials and sequence of reading curricula in elementary schools. Assists students in their ability to identify materials as to function, i.e., emergent literacy, vocabulary and comprehension development, word analysis, and content skills. Includes lectures, discussion, practicum, and workshop. Prerequisite: admission to the School of Education. To be taken concurrently with ED 310 and 330/350 or with ED 430/480 for special education students. Three credits. Offered fall and winter semesters.

ED 321 Reading in the Content Area. Reading instruction in the content areas. Lectures, discussions, demonstrations, and practicum experiences will provide the student a general overview of content area reading problems and strategies for dealing with them. Prerequisite: admission to the School of Education. To be taken concurrently with ED 310 and 331. Three credits. Offered fall and winter semesters.

ED 330 Methods and Strategies of Elementary Teaching. Half-day field experiences as a teacher assistant in an elementary classroom for a minimum of 12 weeks; additional weeks provided for professional development and training to total 15 weeks. Includes a two-hour weekly seminar covering content area methodology and instructional strategies. Prerequisites: admittance to School of Education. Corequisites: 310, 320, 350. Five credits. Offered fall and winter semesters.

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ED 331 Methods and Strategies of Secondary Teaching. Half-day field experiences as teacher assistant in a secondary classroom for a minimum of 13 weeks; additional weeks provided for professional development and training to total 15 weeks. Includes two two-hour weekly seminars covering content area methodology (with major field advisor) and instructional strategies (with Education field advisor). Prerequisites: admittance to the School of Education. Corequisites: 310, 321. Six credits. Offered fall and winter semesters.

ED 332 Methods and Strategies of Special Education Teaching. Half-day field experiences as a teacher assistant in a special education classroom for a minimum of 12 weeks, additional weeks provided for professional development and training to total 15 weeks. Includes a two-hour weekly seminar covering content area methodology and instructional strategies. Prerequisites: admission to School of Education. Corequisites: 310, 361, 460, 495. Six credits. Offered fall and winter semesters.

ED 350 Current Practices in Elementary Education. Introductory workshops and presentations that provide experiences covering the breadth and depth of content knowledge, theoretical and practical foundations, and current trends in the education profession. Prerequisites: admission to the School of Education. Corequisites: 310, 320, 330. One credit. Offered fall and winter semesters.

ED 352 Language and Communication. Theoretical and practical aspects of the development and improvement of the hearing impaired learner's receptive and expressive language and communication skills. Use of various and combined modes of communication are introduced. Taken concurrently with ED 362, 450, 460. Prerequisite: admission to the School of Education in special education. Three credits. Offered fall semester only.

ED 361 Principles, Processes, and Methods in Special Education. Processes and methods involved in identification, assessment, placement, programming, instruction, and evaluation of special needs learning. Prerequisite: admission to the School of Education. Corequisites: 310, 332, 460, and 495. Three credits. Offered fall and winter semesters.

ED 362 Preteaching, Hearing Impaired. A 200-clock-hour field-based experience requiring application of instructional procedures designed to improve the language and communication of hearing impaired students. Prerequisite: admission to the School of Education. Concurrent with ED 352, 450, 460. Six credits. Offered fall semester only.

ED 399 Special Topics in Education. Independent supervised study on selected topics that are not dealt with in depth in other courses. One to three credits. Offered upon sufficient demand.

ED 430 Student Teaching, Elementary. Full-time student teaching with weekly seminar discussions of classroom issues and personal reflection. One to two weeks of professional development will be included in ED 480, to be taken concurrently. Prerequisites: Advancement to student teaching and positive recommendations from prior fieldwork. Corequisite: 320 (for special education). Ten credits. Offered fall and winter semesters.

ED 431 Student Teaching, Secondary. Full-time student teaching with a two-hour seminar each week. One to two weeks of professional development will also be included. Prerequisites: Advancement to student teaching, and positive recommendations from prior fieldwork. Twelve credits. Offered fall and winter semesters.

ED 450 Audiology, Anatomy of Speech, and Hearing Process. Structure and physiology of hearing and speech mechanisms; etiology and terminology of hearing problems; methods and interpretation of audiological testing, and implications for classroom instruction. Prerequisite: admission to the School of Education. Corequisites: 352, 362, 460. Three credits. Offered fall semester.

ED 460 Language and Reading Development. Study of materials and curricula for use in assisting the special needs student in development of speech, language, reading, and writing. Prerequisite: admission to the School of Education. Corequisites: 310, 332, 361, and 495. Three credits. Offered fall and winter semesters.

ED 461 Curriculum for Special Education. Study of the curricula used for the different levels of instruction. Includes prescribing materials appropriate for remedial activities, lesson and unit planning, and instructional techniques. Section A: Mentally Impaired (to be taken concurrently with ED 471); Section B: Emotionally Impaired (to be taken concurrently with ED 472); Section C: Hearing Impaired (to be taken concurrently with ED 470). Prerequisites: admission to the School of Education, ED 430/480, and permission of advisor. Three credits. Offered winter semester.

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ED 470 Directed Teaching in Hearing Impairment. Student teaching in a classroom with hearing impaired students under professional supervision, with accompanying seminar concerned with materials and curriculum for the hearing impaired. Prerequisites: 430/480, and positive recommendations from prior fieldwork. Co-requisite: 461C. Nine credits. Offered winter semester.

ED 471 Directed Teaching in Mental Impairment. Student teaching in a classroom with mentally impaired students with accompanying seminars on methods of teaching and the organization and development of curriculum for the mentally impaired. Prerequisites: 430/480 and positive recommendations from prior fieldwork. Corequisite: 461A. Nine credits. Offered winter semester.

ED 472 Directed Teaching in Emotional Impairment. Student teaching in a special education classroom under professional supervision with accompanying seminar on materials and curriculum for the emotionally impaired. Prerequisites: ED 430/480 and positive recommendations from prior fieldwork. Corequisite: 461B. Nine credits. Offered winter semester.

ED 480 Professional Development in Teacher Education. Content area seminars and classroom issues. Topics include technology, diversity, collaboration, content area integration. Corequisite: 430, 320 (special education only). Two credits. Offered fall and winter semesters.

ED 495 Diagnostic and Interpretive Procedures. Study of formal and informal assessment procedures with emphasis on test interpretation as it relates to performance objectives for exceptional students. Three credits. Corequisite: 310, 332, 361, and 460. Offered fall and winter semesters.

ED 496 Remedial Procedures. Study emphasizing the use of remedial methods and materials for designing educational programs for exceptional students. Section A: Mentally Impaired. Section B: Emotionally Impaired. Section C: Hearing Impaired. Prerequisites: 332, 361, and 495. Three credits. Offered spring semester.

ED 499 Independent Study and Research. Independent supervised research and study in special areas of education, prearranged with a faculty sponsor and approved by the director. One to three credits. Offered upon demand.

ED 599 Independent Study. Individual study of a theoretical or applied problem in education. Prerequisites: Consent of advisor and demonstrated ability to pursue special study or investigation proposed. One to four credits. Offered fall, winter, and summer semesters.

ED 600–601 Content/Curriculum Workshops. Advanced-level workshops that provide a breadth and depth of understanding in content and curriculum of educational programs. Topics may vary and prerequisites may be established. One to three credits. These courses are graded credit/no credit.

ED 630 Curriculum Development. A study of the various approaches of curriculum construction and organization in the schools. Examination of principles of curriculum improvement, change, and evaluation. Three credits. Offered at least once a year.

ED 631 English as a Second Language Methodologies. Study of methodologies and selected problems in teaching English as a second language. Exploration of curricula of school districts with application to classroom teachers. Three credits. Offered every other year.

ED 632 Middle Level Education. A study of middle-level organization, curriculum, instruction, staffing, subject matter, and school-parent-community interaction as it supports the education and development of early adolescents (ages 9–14). Three credits. Offered spring/summer session.

ED 633 Race, Class, and Language. Interdisciplinary course incorporating the views of linguists, psychologists, sociologists, educators, and speech researchers. Exploration of the background literature and practical implications of the problems raised by social class and ethnic differences in language. Three credits. Offered at least once a year.

ED 634 Teaching the At-Risk Student. Issues and concerns and programs in implementing effective programs for students from at-risk backgrounds. Three credits. Offered at least once a year.

ED 635 Survey of Urban Education. Study of the historical, sociological, and educational bases of urban education.

ED 650 Classroom Management (K-12). An examination of the differentiation of the terms “discipline” and “classroom management.” Review and study of such interrelated subjects as

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authority, rules, power, responsibility, types and degrees of control, and the many related attitudes, standards, and prejudices that combine to complicate the problem. Three credits. Offered at least once a year.

ED 651 Counseling and Guidance for the Classroom Teacher. Study of counseling processes applicable to the school setting. Basic principles related to diagnosing, interviewing, listening, communicating, assisting, and referring students for special assistance. Emphasis on relationships of teacher's role in affecting the positive mental health of students. Theories of counseling and behavior change will be reviewed. Prerequisite: teaching experience or PSY 452. Three credits. Offered at least once a year.

ED 652 Education of the Exceptional Student. Study of the characteristics of exceptional students. Research-based effective instructional processes needed to provide the most appropriate education for meeting the needs of exceptional students in the least restrictive environment will be emphasized. Three credits. Offered at least once a year.

ED 653 School Learning. Consideration of learning situations in the light of psychological findings and concepts. Development of a theory of learning and its applications to the teaching of attitudes, skills, concept formation, and understanding. Three credits. Offered at least once a year.

ED 660 Educational Evaluation and Research. Study of the application of research, statistics, and evaluation principles to educational program and teaching improvement. Methods of research design and program evaluation. Emphasis on the design of research problems, valuation of existing practices, and the interpretation of major educational research studies. Three credits. Offered at least once a year.

ED 661 Educational Testing and Measurement. Study of school testing, selection, and evaluation of norm-based and criterion-based instruments, informal assessment, norm-based profiles, descriptive statistical analysis, and survey research. Review of ethical and legal issues in testing minority and special needs populations. Three credits. Offered every semester.

ED 670 Critical Issues in Special Education. Examination of current crucial issues in the administration of special education. May be combined with ED 671. Three credits. Offered at least once a year.

ED 671 Current Issues in Education. Emphasis on investigation of current issues and trends in the administration of schools, school practice, school law, school finance, and other topics will be introduced. May be combined with ED 670. Three credits. Offered at least once a year.

ED 672 Current Issues in Multicultural Education. Emphasis on the study of current issues, among others, of gender, class, identity, race, language and exceptionality in cultural diversity, strategies for materials selection, teaching approaches, and program implementation in educational environments. Three credits. Offered at least once a year.

ED 680 Special Topics in Education. Study of selected topics in education. One, two, or three credits. Offered upon sufficient demand.

ED 685 Practicum/Graduate Field Experience. Field-based experience designed to provide clinical experience for teaching or administration majors. Each practicum shall be no less than the minimum requirements set forth by state and accrediting agencies, and must be with approval of the appropriate program personnel. All practical will require seminars. Not to be used for initial certification. Three and six credits. Offered at least once a year.

ED 685A Advanced Graduate Field Experience.

Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

ED 699 Directed Readings. This course involves a research or reading project, program proposal, or other approved activity that builds on the student's area of specialization. Prerequisite: Permission of the advisor and completion of at least 27 semester credits. Three credits. Offered fall, winter, and summer semesters.

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EDG 599 Independent Study. Individual study of a theoretical or applied problem in education. Prerequisites: Consent of advisor and demonstrated ability to pursue special study or investigation proposed. One to four credits. Offered fall, winter, and summer semesters.

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EDG 600–601 Content/Curriculum Workshops. Advanced-level workshops that provide a breadth and depth of understanding in content and curriculum of educational programs. Topics may vary and prerequisites may be established. One to three credits. These courses are graded credit/no credit.

EDG 610 Advanced Studies in Child Development. Theories and research methods and findings related to the intellectual, emotional, perceptual, social, and personality development of the young school child. Three credits. Offered at least once a year.

EDG 611 Assessment of the Young School Child. Instructional assessment procedures and prescriptive techniques for students Pre-K-6. Three credits. Offered at least once a year.

EDG 612 Curriculum Development for Early Childhood Education. Theoretical background and content of curricular approaches in early childhood programs. Analysis and evaluation of early childhood curricular materials. Experience in designing and sequencing activities for young children. Three credits. Offered at least once a year.

EDG 613 Administration and Supervision of Early Childhood Education. A study of the organization, administration, and skills required in the direction of early childhood education programs. Review of the pertinent federal, state, and local regulations and support services. Three credits. Offered at least once a year.

EDG 618 Introduction to Microcomputers and Education. For teachers with little computing experience. This course provides an introduction to the use of computer in educational settings, including hands-on use of productivity and communication software. Students who submit a portfolio demonstrating mastery may take an elective technology-related course instead. Three credits. Offered fall/winter semester.

EDG 619 Classroom Uses for the Microcomputer. This course examines applications of computers and the Internet for K-12 subject matter teaching and learning. Extensive hands-on experience using educational software and the Internet in support of subject matter teaching and learning. Investigation of learning theory and exemplary uses of technology in teaching and learning in classroom settings. Prerequisite: EDG 618 or permission of instructor. Three credits. Offered summer semester.

EDG 620 Courseware Development: This course focuses on the evaluation, selection, and use of educational software and on-line instructional resources in classroom teaching and learning. Exposure to a variety of educational software applications, as well as resources on the Internet, with a focus on the processes and products of design, evaluation, and implementation of technology-based learning environments. Prerequisite: EDG 618 or permission of instructor. Three credits. Offered fall semester.

EDG 621 Topics in Educational Technologies. Advanced study of issues related to school-wide adoption of technology and the impact on teachers, administrators, and others involved in K-12 education. This course covers a broad range of topics, including distance education, video technology, funding educational technology projects, ethical uses of technology, networking, technology adoption planning, and field-based experiences. Prerequisite: EDG 618 or permission of instructor. Three credits. Offered winter semester.

EDG 622–625 Topics in School Library/Media Services. Theory and practice in school library/media services. Students will have the opportunity to engage in one or more of the following topics: administration of the school media center, information resources: selection and management, referencing, and cataloging/processing. One to three credits. Offered at least every other year.

EDG 622 Information Resource: Selection and Management. Theoretical and practical aspects of the selection, evaluation, acquisition and management of collections in print, multimedia, and electronic formats. Acquisitions, publishers and publishing, policy making, intellectual freedom and user's rights, and network and resource sharing are emphasized. Three credits. Offering varies. Please contact Department.

EDG 623 Reference. This course introduces students to the basic information sources and services of the school library media center. Characteristics of and search strategies for the use of bibliographic, referral, citation, fact, numeric, and electronic resources are discussed. Prerequisite: EDG 618 or EDG 622 or permission of instructor. Three credits. Offering varies. Please contact Department.

EDG 624 Cataloging and Processing. Designed to provide training in the technical services of cataloging and processing print, multimedia, and electronic materials for the school library media specialist. Topics include cataloging rules, filing rules, subject headings, and

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automated systems for technical services. Prerequisite: EDG 618 or EDG 622 or permission of instructor. Three credits. Offering varies. Please contact Department.

EDG 625 Media Center Administration. Designed to prepare the school library media specialist to perform the administrative functions of the school library media center: program planning; development and evaluation for learning and teaching; budgeting; public relations; collection and facilities design and development; personnel supervision; and information networking within the learning community. Prerequisite: EDG 618 or EDG 622 or permission of instructor. Three credits. Offering varies. Please contact Department.

EDG 630 Teaching Mathematics: K-8. Study of content and instruction pedagogies used in teaching elementary and middle school mathematics. Consideration of the principles involved in developing a mathematics program and quality materials for classroom use. Three credits. Offered at least once a year.

EDG 631 Teaching Science: K-8. Designed to prepare teachers to teach elementary and middle level science to all students. Emphasizes planning and teaching science, including laboratory inquiry and hands-on activities. Integration of process and content objectives, activities, and assessment will be addressed. Three credits. Offered at least once a year.

EDG 632 Teaching Creative and Performing Arts. Explores theories of creativity and their application in the classroom. It provides students with an opportunity to learn more about developing the creative potential of their students within all disciplines and across all levels of education. Three credits. Offered spring/summer semester.

EDG 633 Teaching Social Studies and Diversity. Emphasizes instructional methods for teaching and integrating social studies, economics, history, civics, geography, and diversity in elementary and middle schools. Focus is on problem solving, critical thinking, and democratic citizenship with strategies for valuing people with differences in learning styles, race, class, culture, gender, and disability. Three credits. Offered at least once a year.

EDG 635 Development and Needs of Adolescents. Addresses the impact on teaching of student development, needs and characteristics (cognitive, social, physical, emotional, moral, and character); how family, peers, and society influence students; and the application of developmental and learning theories to school structure, classroom management, and teaching and learning activities. Three credits. Offered at least once a year.

EDG 636 Instruction in Middle and High Schools. Multiple instructional strategies appropriate for teaching and assessing middle and high school curriculum; methods for addressing individual differences, incorporating students' ideas, developing thinking and problem solving skills, facilitating groups, promoting student responsibility and planning lessons, units, interdisciplinary activities, and experiences that foster achievement of the curriculum. Three credits. Offered at least once a year.

EDG 640 Issues in Gifted and Talented Education. A survey of the history, current issues, research and trends. Critical analysis of the origin and development of such terms as giftedness, talent and intelligence, and their implications for educational practice. Three credits. Offered at least once a year.

EDG 641 Methods and Materials for the Gifted and Talented. Examination and practical application of the objectives, instructional research, teaching strategies, classroom activities, and materials for teaching the gifted and talented student. Three credits. Offered at least once a year.

EDG 642 Psychology and Counseling of Gifted and Talented Students. Study of the cognitive, affective, and social characteristics of the gifted and talented child. Psychological theories, research, principles and practices, psychological assessment and diagnosis, counseling, attitudes, and adjustment. Three credits. Offered at least once a year.

EDG 647 Theories of College Student Development. This course examines the major student development theories used by college student affairs practitioners in the higher education environment. Three credits. Offered at least once a year.

EDG 648 The Adult Learner. Emerging theories and techniques for teaching the adult learner. Focus upon the adult's deliberate efforts at learning, developing, growing, and changing, and learning difficulties. Three credits. Offered at least once a year.

EDG 649 Career Guidance for Secondary and Adult Students. Principles and processes in providing career guidance for the secondary and adult student. Three credits. Offered at least once a year.

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EDG 650 Materials and Methods for Adult and Continuing Education. Materials and methods of teaching the adult learner in school and nonschool settings. Three credits. Offered at least once a year.

EDG 651 Higher Education and Student Affairs Functions. Provides an overview of the historical development of American higher education and an introduction to the evolution of student affairs functions in the academy. Three credits. Offered at least once a year.

EDG 652 The American College Student. Examines the characteristics, values, expectations, and needs of contemporary college students in the context of student development theory. Prerequisite or corequisite: EDG 651 or permission of instructor. Three credits. Offered at least once a year.

EDG 653 Administration of Student Affairs Programs. Examines the philosophy, organization and delivery of support programs, services and co-curricular learning experiences for college students. Prerequisites: EDG 651, EDG 652. Three credits. Offered at least once a year.

EDG 654 Student Affairs Administrators and the Law. Provides an overview of the legal issues and challenges that confront student affairs administrators in the higher education environment. Prerequisite: EDG 651 or permission of the instructor. Three credits. Offered at least once a year.

EDG 655 Intervention Strategies for Student Development. Examines the interventions used by student affairs practitioners to facilitate students' learning about themselves, about other people, and about ideas. Prerequisites: EDG 653 or permission of instructor. Three credits. Offered at least once a year.

EDG 665 Educational Leadership. Students will participate in a variety of self-assessment activities, simulations, and group discussions designed to provide information about and insight into effective leadership in schools. Three credits. Offered at least once a year.

EDG 666 Curriculum Leadership. Study of a variety of organizational development approaches used in leading staff through curriculum development. Topics include preplanning, principles of curriculum decision making, effective schools research, participatory strategies for curriculum problem solving, and the process of change. Emphasis on leadership skill building. May be combined with EDS 666. Three credits. Offered at least twice a year.

EDG 667 Elementary Supervision and Evaluation. Emphasis on enabling leaders to generate the tools to improve elementary schools. Topics include organizational development, problem-solving, goal-setting, organizational change, employee motivation, communication, resolution of conflicts, and clinical supervision and evaluation. Analysis of topics will emphasize effects research and descriptive theory. Prerequisite: EDG 665. Three credits. Offered at least once a year.

EDG 668 Personnel Administration. Responsibilities in staff supervision, staffing needs, certification, selection, assignment, promotion, salaries, retirement, absences, teachers' organizations, grievances, collective bargaining, and supervision of student teachers. Three credits. Offered once a year.

EDG 669 School Finance. The principles and theory underlying finance practice in public schools. Three credits. Offered at least once a year.

EDG 670 School Law. General legal principles and laws that affect general and special education. Emphasis on sources and scope of school law, legal rights and responsibilities of teachers, pupils, and taxpayers. Procedural, historical, and jurisprudential dimensions of American law are stressed including the dimensions of PL 74-142 and PA 198. Three credits. Offered at least once a year.

EDG 671 Secondary Supervision and Evaluation. Emphasis on giving leaders the tools to make ongoing improvement in secondary schools. Topics include organizational development, problem-solving, goal-setting, organizational change, employee motivation, communication, resolution of conflicts, and clinical supervision and evaluation. Analysis of topics will emphasize effects research and descriptive theory. Prerequisite: EDG 665. Three credits. Offered at least once a year.

EDG 672, 673, 675 Advanced Studies in Special Education. A series of competency modules dealing with various areas of special education. One to six credits. Offered at least once a year.

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EDG 672 Policy Development
EDG 673 School Board Relations
EDG 675 Administrative Behavior

EDG 674 State and Federal Grants. Major state and federal grant-support programs in education. Examination of district qualifications, students who will benefit, rules and regulations, guidelines, program accountability, and procedures for making application. Three credits.

EDG 680 Special Topics in Education. Study of selected topics in education. One, two, or three credits. Offered upon sufficient demand.

EDG 685 Practicum/Graduate Field Experience. Field-based experience designed to provide clinical experience for graduate students. Each practicum shall be no less than the minimum requirements set forth by state and accrediting agencies and must be with approval by the appropriate program personnel. All practica will require seminars. Three and six credits. Offered at least once a year.

EDG 685A Elementary Education
EDG 685B Secondary Education
EDG 685C Gifted and Talented Education
EDG 685D Early Childhood Education
EDG 685E Middle Level
EDG 685F Elementary Principal
EDG 685G Central Office Administrator
EDG 685H Superintendent
EDG 685I Secondary Principal
EDG 685J Educational Technology
EDG 685K English as a Second Language
EDG 685L Adult and Higher Education

Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

EDG 695 Research Applications. Candidates for advanced degrees must demonstrate not only their mastery of the subject matter but also their ability to integrate and synthesize it. They must also demonstrate their ability to generate new knowledge and/or to apply existing knowledge to specific practical situations. This demonstration may take the form of a research project or thesis. Planned with and directed by a graduate faculty member. Three credits. Offered at least once a year. Prerequisite: permission of advisor and completion of at least 27 semester hours.

EDG 695A Early Childhood Education
EDG 695B Educational Technology
EDG 695C Elementary Education
EDG 695D Gifted and Talented Education
EDG 695F Educational Leadership
EDG 695G Teaching English to Speakers of Other Languages
EDG 695H Middle and High School Education
EDG 695I Adult and Higher Education

Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

EDG 699 Directed Readings. This course involves a research or reading project, program proposal, or other approved activity that builds on the student's area of specialization. Prerequisite: Permission of the advisor and completion of at least 27 semester credits. Three credits. Offered fall, winter, and summer semesters.

Reading

EDR 599 Independent Study. Individual study of a theoretical or applied problem in education. Prerequisites: Consent of advisor and demonstrated ability to pursue special study or investigation proposed. One to four credits. Offered fall, winter, and summer semesters.

EDR 600–601 Content/Curriculum Workshops. Advanced-level workshops that provide a breadth and depth of understanding in content and curriculum of educational programs.

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Topics may vary and prerequisites may be established. One to three credits. These courses are graded credit/no credit.

EDR 621 Theories of Teaching Reading. An introduction to research language and cognitive development in reading. International and historical trends, factors affecting reaching achievement, and implications for instruction. Prerequisite: Teaching experience or ENG 308 or acceptance into a graduate certification program. Three credits. Offered at least once a year.

EDR 622 Developmental Reading—Elementary. Study of the developmental nature of the reading process and analysis of factors influencing the acquisition of reading skills. Practices and materials used in developmental reading programs are examined. Prerequisite: Teaching experience or ED 320 or acceptance into a graduate certification program. Three credits. Offered at least once a year.

EDR 623 Developmental Reading—Secondary. Introduction to the development of reading in secondary students. Assists secondary teachers with little or no background in reading instruction. Prerequisite: teaching experience or ED 321 or acceptance into a graduate certification program. This course is appropriate for middle school and secondary teachers. Three credits. Offered at least once a year.

EDR 624 Literature for Children. Examination of methods, materials, research, and issues related to literature for the schools. Three credits. Offered at least once a year.

EDR 625 Literature for Adolescents. Examinations of methods, materials, research, and issues related to literature for middle level and high schools. Three credits. Offered at least once a year.

EDR 626 Reading Problems: Diagnosis and Instruction. A study of current research, theory, assessment techniques, and teaching strategies for remedial reading. Selected reading tests, materials, and diagnostic and remedial procedures will be examined to enhance decision making for the correction of reading disabilities. Prerequisites: EDR 621 and 622. Three credits. Offered at least once a year.

EDR 627 Teaching Reading in the Content Areas. Study of the integration of reading in the content areas. Materials and procedures for identifying the reading needs of students in science, social studies, mathematics, etc. Basic principles and techniques for improving instruction are covered. This course is appropriate for elementary and middle school teachers. Secondary teachers should take EDR 623. Three credits. Offered at least once a year.

EDR 628 Curriculum and Materials for Language Arts. Study of the goals, content, and programs involved in the instruction and integration of language arts for grades K-12. Three credits. Offered at least once a year.

EDR 629 Teaching Reading to Adults. Analysis of the concept of illiteracy and characteristics of the adult learner. Methods and materials for teaching reading to the adult will be examined and evaluated. Three credits. Offered every other year.

EDR 680 Special Topics in Education. Study of selected topics in education. One, two, or three credits. Offered upon sufficient demand.

EDR 685 Practicum/Graduate Field Experience in Reading. Field-based experience designed to provide clinical experience for teaching or administration majors. Each practicum shall be no less than the minimum requirements set forth by state and accrediting agencies and must be with approval by the appropriate program personnel. All practica will require seminars. Not to be used for initial certification. Prerequisite: EDR 626. Three and six credits. Offered at least once a year. Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

EDR 695 Research Applications: Reading. Candidates for advanced degrees must demonstrate not only their mastery of the subject matter but also their ability to integrate and synthesize it. They must also demonstrate their ability to generate new knowledge and/or to apply existing knowledge to specific practical situations. This demonstration may take the form of a research project or thesis. Planned with and directed by a graduate faculty member. Prerequisite: Admission to a graduate program, completion of 27 semester hours, permission of advisor. Three credits. Offered at least once a year. Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

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EDR 695 Reading Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

EDR 699 Directed Readings. This course involves a research or reading project, program proposal, or other approved activity that builds on the student's area of specialization. Prerequisite: Permission of the advisor and completion of at least 27 semester credits. Three credits. Offered fall, winter, and summer semesters.

Special Education

EDS 550 Preteaching and Methods of Teaching Special Education. A supervised field experience of at least six weeks with exceptional children teaching in the area of M.I., L.D., or E.I. Students must apply by February 1 for summer and fall semesters.

EDS 599 Independent Study. Individual study of a theoretical or applied problem in education. Prerequisites: Consent of advisor and demonstrated ability to pursue special study or investigation proposed. One to four credits. Offered fall, winter, and summer semesters.

EDS 600-601 Content/Curriculum Workshops. Advanced-level workshops that provide a breadth and depth of understanding in content and curriculum of educational programs. Topics may vary and prerequisites may be established. One to three credits. These courses are graded credit/no credit.

EDS 610 Studies in Emotional Impairment. Study of several behavior management techniques that are commonly used by professionals dealing with students who have behavior/emotional problems. Techniques include life space interview, reality therapy, various operant strategies, and surface behavior strategies. Prerequisites: ED 650 or equivalent and PSY 303 or equivalent. Three credits. Offered at least once a year.

EDS 611 Remedial Procedures: Emotionally Impaired. Instructional procedures, curriculum alternatives, collaborative consultation, and comprehensive program planning for secondary students with emotional impairments. Prerequisites: EDS 610 and 636 or equivalent. Three credits. Offered at least once a year.

EDS 618 Studies in Mental Impairment. Intermediate studies in the etiology of mental retardation and its implications for teaching strategies and materials. Recommended for students who do not have endorsement in mental impairment. Three credits. Offered in even-numbered years.

EDS 620 Programs for Severely Mentally Impaired. Advanced study in special education. Three credits. Offered in odd-numbered years.

EDS 626 Individual Testing. Study of the history, theory, and implications of using individual tests for educational placements and instructional prescriptions. Students will design educational strategies based on the scores obtained from several individual assessment instruments. Three credits. Offered at least once a year.

EDS 627 Learning Strategies for Exceptional Students. Instructional methods and organizational competencies designed to assist educators who instruct adolescents or young adults with learning disabilities, emotional impairments, or educable mental impairments. The learning strategies approach will be taught as a functional curriculum alternative for secondary educators. Three credits. Offered at least once a year.

EDS 628 Neurological Bases of Learning Disorders. Basic neuroanatomy and neurophysiology designed for teachers. Special attention to the learning-disordered individual with organic/neurological impairment. Basic types of impairment, associated neurological features and educational, psychological, and special aspects of children with learning problems. Three credits. Offered at least once a year.

EDS 629 Vocational Education for the Handicapped. Study of assessment procedures, establishment of goals and objectives, and development of programs for promoting the employment of handicapped adolescents. Includes lectures, discussions, and workshop activities. Three credits. Offered at least once a year.

EDS 636 Diagnostic and Interpretative Procedures. Review of evaluative instruments used for identification and programming for exceptional persons. Three credits. Offered at least twice a year.

EDS 637 Language Development and Reading for the Special Needs Child. Study of language and reading for the special needs child. Theories of language development, consideration of language systems in the total communication process, and techniques for aiding in the development of language learning skills. Three credits. Offered at least twice a year.

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EDS 638 Remedial Procedures: Learning Disabilities. Remedial techniques and materials employed with learning disabled persons. Prerequisite: EDS 636. Three credits. Offered at least twice a year.

EDS 640 Research in Learning Disabilities. Current research on etiology, identification, diagnosis, and programming for learning-disabled persons. Prerequisite: EDS 638 or 639. Three credits. Offered twice a year.

EDS 646 Counseling Parents. Remedial and preventive counseling strategies for parents of young children birth through age 8. Preparation for assisting parents in settings that include parent education, atypical children, developmentally diverse children, and conditions requiring assistance from other professionals. Three credits. Offered at least once a year.

EDS 647 Preschool Special Needs Child. Research implications, teaching strategies, and curricula for the instruction of special-needs infants and preschool children. Three credits. Offered at least once a year.

EDS 665 Foundations of Special Education Administration. A study of federal and state legislation affecting special education, the methods available for the evaluation of programs; needs assessment, evaluation of in-service, and the role of the special education administrator. Three credits. Offered at least once a year.

EDS 666 Curriculum Development in Special Education Administration. Study of the patterns of curriculum organization, teaching trends in special education areas of the curriculum, processes of curriculum improvement, and proposals for curriculum reform. May be combined with EDG 666. Three credits. Offered at least once a year.

EDS 667 Administration of Special Education. Theory and practice of personnel, finance, curriculum, and law in special education. Prerequisite: EDS 665. Three credits. Offered at least once a year.

EDS 668-675 Advanced Studies in Special Education. A series of competency modules dealing with various areas of special education. One to three credits. Offered at least once a year.

EDS 668 Budget and Accounting

EDS 669 Special Education Law

EDS 670 Computers in Instruction

EDS 671 Computers in Management (Prerequisite: EDS 670)

EDS 672 Special Education Finance

EDS 673 School and Community Relations

EDS 674 In-Service Education

EDS 675 Facilities Planning

EDS 680 Special Topics in Education. Study of selected topics in education. One, two, or three credits. Offered upon sufficient demand.

EDS 685 Practicum/Graduate Field Experience. Field-based experience designed to provide clinical experience for teaching or administration majors. Each practicum shall be no less than the minimum requirements set forth by state and accrediting agencies, and must be with approval by the appropriate program personnel. All practica will require seminars. Not to be used for initial certification. Three and six credits. Offered at least once a year.

EDS 685A Special Education Supervisor

EDS 685B Special Education Director

EDS 685C Emotional Impairment

EDS 685E Mental Impairment

EDS 685F Severely Mentally Impaired

EDS 685H Learning Disabilities

EDS 685J Preprimary Impaired

Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

EDS 686 Internship in Special Education. One-year paid internship in a classroom for the handicapped under supervision of an intern consultant from GVSU. Nine credits. Fee required. Offered fall and winter semesters. Requires special application and admission procedure, done during winter semester.

EDS 695 Research Applications. Candidates for advanced degrees must demonstrate not only their mastery of the subject matter but also their ability to integrate and synthesize

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it. They must also demonstrate their ability to generate new knowledge and/or to apply existing knowledge to specific practical situations. This demonstration may take the form of a research project or thesis. Planned with and directed by a graduate faculty member. Three credits. Offered at least once a year. Prerequisite: permission of advisor and completion of at least 27 semester hours.

EDS 695A Learning Disabilities
EDS 695C Special Education Supervisor
EDS 695D Special Education Director

Candidates must apply separately to the School of Education by February 1 for summer and fall semesters and by September 15 for winter semester.

EDS 699 Directed Readings. This course involves a research or reading project, program proposal, or other approved activity that builds on the student's area of specialization. Prerequisite: Permission of the advisor and completion of at least 27 semester credits. Three credits. Offered fall, winter, and summer semesters.

The Seymour and Esther Padnos School of Engineering

Director: Plotkowski. Professors: Fleischmann, Garrett, Johnson, Larson, Plotkowski; Associate Professors: Jack, Standridge, Yackish; Assistant Professors: Adamczyk, Blauch, Farris, Marvel, Mohammadzadeh, Ray, Reffeor, Sterian.

Degree offered: Bachelor of Science in Engineering (B.S.E.) with cooperative engineering education.

Accreditation: The B.S.E. program is accredited by the Accreditation Board for Engineering and Technology (ABET); the manufacturing and mechanical emphases in the B.S.E. program have separate programmatic accreditation by ABET.

Introduction

Engineers apply science, mathematics, and professional judgment to solve technical problems in industry and society. They design and develop products, processes, services, and systems. Engineers test, produce, operate, maintain, sell, install, and manage products and systems. Many work in public health, transportation, and environmental protection.

In today's world, engineers are expected to contribute more than technical competence. As professionals, engineers are concerned with the impact of their work on society and the changing values and priorities of society. The current emphasis on science and technology has increased public interest in engineering education as a general preparation for living as well as earning a living. To deal effectively with rapid changes in technology, engineers must have a broad undergraduate education firmly based upon the basic sciences and imbedded within a supportive general education program. Engineers must have the ability to visualize a problem in its total context.

The Padnos Legacy

Grand Valley State University has named the School of Engineering in honor of Seymour and Esther Padnos to recognize their commitment to creating an environment in which students and faculty can reach their full potential in the field of engineering. It is the aim of the University to inspire future engineers to live up to the personal and professional ideals of the Padnos family.

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One of the hallmarks of the Seymour and Esther Padnos School of Engineering is its focus on environmental responsibility. This important societal issue has been integrated into all facets of the engineering curriculum.

Mission and Values Statements

Mission: Our mission is to prepare students to assume engineering positions in industry with the potential to advance to leadership positions.

It is the mission of the faculty to provide a curriculum that is relevant to current engineering practice and strongly applied in nature. The faculty provides an environment in which students develop the knowledge and skills necessary to meet the engineering design challenges of the future with flexibility and creativity. Students develop technical competency through classroom/laboratory work and through the supervised on-site work experience provided in the student's industry experience.

Our mission is fulfilled by commitment to continual improvement and refinement through critical review. Such review requires both close contact with current engineering practice and a commitment to those elements of a general education program required for a well-balanced education. For this reason faculty involvement with the student industry experience and with consulting practice is strongly encouraged. At the same time close communication with the academic community at large ensures that the students' technical education is embedded in a strongly supportive general education program.

Values: Our values reflect our educational mission. We are an academic community in a nation for which the intrinsic value of each individual is taken as fundamental. Thus we strive to provide an environment in which each member of our academic community—student, staff member, and faculty—can reach his or her fullest potential.

Just as we value each individual in our community, we value the environment in which we live. The engineering community strongly influences the environment through the practice of its profession. For that reason we strive to build into our curriculum an awareness of, and a sensitivity to, those areas in which engineering practice affects the environment. Such awareness extends beyond technical knowledge to include ethical responsibility in the practice of our profession.

The Bachelor of Science in Engineering (B.S.E.) Program

The Padnos School of Engineering offers a four-year program leading to the degree of bachelor of science in engineering (B.S.E.). During the first two years students take courses fundamental to engineering in preparation for admission to major standing and cooperative education in industry. The integrated cooperative engineering education allows students the opportunity to gain industrial experience before graduation. During the last two years of the program students alternate periods of cooperative education in industry with academic study that allows either a computer, electrical, manufacturing, or mechanical emphasis. The four-year program is capped by a two-semester senior design project requiring initiative, planning, and design. Throughout the program, computers are used to develop and support the analytical and design skills required of engineers. The program is accredited by the Accreditation Board for Engineering and Technology.

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B.S.E. Program Goal and Objectives

The goal of the B.S.E. program is to prepare students to assume engineering positions in industry with the potential to advance to leadership positions.

The program objectives for attaining this goal are that a student graduating from the B.S.E. program must (1) have the technical knowledge and capabilities expected of a practicing engineer; (2) be able to function effectively in an industrial environment. He or she must have the ability to communicate effectively, engage in critical thinking, and have highly developed skills in problem solving in both individual and team situations; (3) have the ability to apply engineering knowledge and be able to create physical realizations of his or her theoretical concepts and models; (4) have the ability to engage in engineering design; (5) have an awareness of the need for continued professional growth; and (6) have an awareness of, and sensitivity to, those areas in which engineering practice affects society and the environment. Such awareness, extending beyond technical knowledge to include ethical and social responsibility, must frame the continued professional and scholarly growth of the graduate.

Engineering Design

Design is central to the practice of engineering. To prepare graduates who are well versed in contemporary design practice, the curriculum has been developed to integrate design education throughout all four years of the program. This experience begins in the freshman year with instruction and practice in computer-aided design and product realization, the design of computer software, and the engineering problem-solving method using contemporary computer software and hardware tools. Design instruction continues in the sophomore year through the use of activities such as design projects, materials selection exercises, and quality assurance methods. Building upon the engineering science and design developed in the first two years and the experience gained in the integrated cooperative education program, substantially more mature design experiences begin in the junior year. The cooperative education program, which continues through the junior and senior years, also contributes substantially to student preparation for the two-semester capstone senior design experience. The majority of the senior design projects each year are performed for companies involved in the cooperative education program. Woven throughout the curriculum are a series of exercises that address environmentally responsible design.

Industry Involvement

Grand Valley's B.S.E. degree program has wide community and industrial support. Individuals and industries in West Michigan have supported the program financially as well as by providing opportunities for cooperative engineering education. The program is served by an Engineering Advisory Board composed of practicing engineers and others in the field. The School of Engineering is also supported by the Minority Engineering Committee, which is composed of practicing engineers. Grand Valley's Career Services Office also provides liaison between the engineering program and industry.

Student Preparation and Guidance

The B.S.E. degree program is highly structured, so careful planning by students, in consultation with their engineering advisor, is essential. Students considering an engineering career should consult an engineering program advisor at the

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earliest possible opportunity, preferably before registering for their first semester. A consultation with a program advisor can be arranged by contacting the School of Engineering. Students who have declared engineering as their major will be assigned an academic advisor from the faculty of the School of Engineering.

High school students considering an engineering career are urged to take a college preparatory program consisting of at least three years of laboratory science, including one year of physics and one year of chemistry; four years of mathematics, including two years of algebra, one year of geometry, and one-half year of trigonometry; one-half year of computer programming; four years of English; two years of a foreign language; and three years of social studies. In addition, it is recommended that the student develop keyboard typing skills, mechanical/CAD drawing skills, and a familiarity with mechanical tools. Students having little or no experience with hand and shop tools are encouraged to complete EGR 105 Mechanical Shop Practice (or an equivalent course) during the summer prior to beginning at GVSU or during the summer between the freshman and sophomore years.

Properly prepared students can complete the B.S.E. program in four and one-third years. Students who are not prepared to begin the B.S.E. program with Mathematics 201 (Calculus and Analytic Geometry I) or who prefer to not carry the average course load of 16 credit hours per semester will need a longer period of study to complete their engineering degree. Students who wish to pursue the B.S.E. degree after transferring from a two-year school should normally enroll in a pre-engineering program before transferring to Grand Valley.

Admission

Students with no previous college credit or those who have not completed the 64-semester-hour engineering fundamentals course sequence are admitted to the School of Engineering as pre-majors. The fundamentals of engineering course sequence spans the freshman and sophomore years and develops the foundation on which an engineering emphasis is built.

Students who intend to pursue the B.S.E. degree are urged to declare engineering as their major as soon as possible, preferably before they first register for courses at Grand Valley. Students must formally declare engineering as their major before the end of the drop-add period of the fall semester of the academic year in which they are seeking admission to major standing.

Admission to major standing in the B.S.E. program is competitive and requires a secondary application. Applicants must meet at least the following: (1) a GPA of 2.5 or above in the engineering fundamentals course sequence, (2) completion of each course in the engineering fundamentals course sequence with a grade of C (2.0) or above, and (3) completion of EGR 289 in preparation for placement in cooperative engineering education. Transfer students must also complete at least eight semester hours of engineering courses at Grand Valley before they can be admitted to major standing.

The School of Engineering course repeat policy for admission is as follows: Admission GPA will be calculated on no more than one repeat per required course in the pre-major engineering fundamentals course sequence.

Students must apply directly to the School of Engineering before the last day of classes of the fall semester of the academic year in which they are seeking

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admission to major standing. Application forms are available from the School of Engineering and are to be returned to and signed by the student's engineering advisor. Notification letters are issued no later than the second week of the winter semester.

Cooperative Education

Cooperative engineering education in industry begins during the spring/summer semester following admission to major standing in the B.S.E. program. Students then alternate periods of cooperative education with periods of academic study for the next 28 months. The cooperative education cycle provides the student with 1,500 to 2,000 hours of work experience. A typical schedule of cooperative education and academic study is shown below.

Placement of students in cooperative education is made through the Career Services Office. Students must enroll in EGR 289 during the fall semester for placement in the following spring/summer semester. Grand Valley will make a strong effort to offer every student admitted to major standing a number of invitations for interviews for cooperative education positions with various potential employers. Students who are not acceptable for employment through the prescribed cooperative education placement process, do not obtain positive evaluations during their cooperative educational experiences, or do not maintain satisfactory progress toward the B.S.E. degree cannot meet the graduation requirements of the program and must withdraw from the B.S.E. program. Such students do have numerous other options to complete a bachelor's degree in one of Grand Valley's other four-year programs.

Career Opportunities

The need for broadly educated engineering graduates is very high and is expected to grow rapidly during the next decade. Demand varies depending on location, type of local industry, and the economy. West Michigan is one of the fastest-growing technical, manufacturing, and industrial regions of the state, and engineering opportunities in this region are good and are expected to improve during the next decade.

Requirements for the Bachelor of Science in Engineering (B.S.E.)

Students earning a B.S.E. degree must complete the following:

1. **General university degree requirements:** As identified in the General Academic Regulations section of the catalog, with the exceptions that (1) the engineering degree requires a minimum of 125–130 credits plus cooperative education credits, (2) the general education program includes the following courses:
BIO 105 Human Ecology or BIO 103 The Biology of People or BIO 111 General Biology I or BIO 112 General Biology II (Life Science Foundation)
PHI 102 Ethics (Philosophy and Literature Foundation) or one course from the Ethics theme
ECO 211 Introductory Microeconomics or ECO 210 Introductory Macroeconomics (Social Sciences Foundation);
2. **Fundamentals of engineering:** 63–64 semester credits in the following fundamentals of engineering sequence of courses (engineering, science, mathematics, and communications):

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CHM 115 Principles of Chemistry I
CS 162 Computer Science I
EGR 101 Engineering Principles I
EGR 103 Engineering Principles II
EGR 209 Statics and Solid Mechanics
EGR 214 Circuit Analysis I
EGR 226 Introduction to Digital Systems
EGR 250 Materials Science (Manufacturing or Mechanical Emphasis)
or
EGR 255 Materials for the Electrical Sciences (Electrical Emphasis)
or
CS 262 Computer Science II (Computer Emphasis)
WRT 150 Strategies in Writing
MTH 201 Calculus and Analytic Geometry I
MTH 202 Calculus and Analytic Geometry II
MTH 203 Calculus and Analytic Geometry III (Electrical, Manufacturing or Mechanical Emphasis)
or
MTH 225 Discrete Structures: Computer Science (Computer Emphasis)
MTH 302 Linear Algebra and Differential Equations
PHY 230 Principles of Physics I
PHY 231 Principles of Physics II
or
PHY 234 Engineering Physics
STA 313 Probability and Stochastic Processes (Computer or Electrical Emphasis)
or
STA 314 Statistical Quality Methods (Manufacturing or Mechanical Emphasis)

3. **Admission to major standing:** Admission to major standing in the B.S.E. program is competitive and requires a secondary application. Applicants must meet at least the following: (1) a GPA of 2.5 or above in the engineering fundamentals course sequence, (2) completion of each course in the engineering fundamentals course sequence with a grade of C (2.0) or above, and (3) completion of preparation for placement in cooperative engineering education, EGR 289. Transfer students must complete at least eight credit hours in engineering courses taken at GVSU before they can be admitted to major standing.
4. **Senior design project courses:** three semester credits in the required senior design project course sequence with a minimum grade of C (2.0) in each course:
EGR 485 Senior Engineering Project I*
EGR 486 Senior Engineering Project II*
5. **Emphasis courses:** 35–39 semester credits in the chosen emphasis sequence.

In addition to the seven required courses (26–27 credits), a student must select three courses (9–12 credits) of engineering electives in an emphasis area to form a coherent plan of study. The approval of the student's academic advisor is required to insure that the course choices meet the requirements of the program. No more than two courses with a grade of less than C (2.0) may be counted toward the emphasis.

Computer Emphasis:

Required Courses:

*Satisfies capstone course requirement for the B.S.E. degree.

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EGR 314 Circuit Analysis II
EGR 315 Electronic Circuits I
EGR 326 Advanced Digital Systems
CS 361 C and Unix
CS 363 Software Engineering
CS 452 Operating Systems Concepts
CS 457 Data Communications

Elective Courses 9–12 credits (three courses) selected from the following:

EGR 413 Signals and Systems Analysis
EGR 423 Digital Signal Processing Systems
EGR 424 Design of Microcontroller Applications
EGR 426 Integrated Circuit Systems Design
EGR 450 Manufacturing Control Systems
CS 451 Computer Architecture
CS 459 Embedded Computer Systems

Electrical Emphasis:

Required Courses:

EGR 314 Circuit Analysis II
EGR 315 Electronic Circuits I
EGR 316 Electronic Circuits II
EGR 326 Advanced Digital Systems
EGR 340 Electromagnetic Fields
EGR 360 Thermodynamics
EGR 413 Signals and Systems Analysis

Elective Courses—12 credits (three courses) selected from the following:

EGR 325 Electromechanics
EGR 370 Engineering Acoustics
EGR 414 Network Synthesis
EGR 415 Communications Systems
EGR 416 Design with Analog Integrated Circuits
EGR 423 Digital Signal Processing Systems
EGR 424 Design of Microcontroller Applications
EGR 425 Electronic Systems
EGR 426 Integrated Circuit Systems Design
EGR 450 Manufacturing Control Systems
EGR 455 Automatic Control Systems

Manufacturing Emphasis:

Required Courses:

EGR 309 Machine Design I
EGR 345 Dynamic System Modeling and Control
EGR 360 Thermodynamics
EGR 367 Manufacturing Processes
EGR 371 Manufacturing Systems Simulation
EGR 373 Production Scheduling and Control
EGR 450 Manufacturing Control Systems

Elective Courses—12 credits (three courses) selected from the following:

EGR 409 Machine Design II
EGR 470 Product and Process Design
EGR 473 Strategic Manufacturing Engineering Considerations
EGR 474 Integrated Manufacturing Systems

Mechanical Emphasis:

Required Courses:

Engineering

EGR 309 Machine Design I
EGR 312 Dynamics
EGR 345 Dynamic System Modeling and Control
EGR 360 Thermodynamics
EGR 365 Fluid Mechanics
EGR 409 Machine Design II
EGR 468 Heat Transfer

Elective Courses — 11–12 credits (3 courses) selected from the following:

EGR 325 Electromechanics
EGR 350 Vibration
EGR 352 Kinematics and Dynamics of Machinery
EGR 367 Manufacturing Processes
EGR 370 Engineering Acoustics
EGR 450 Manufacturing Control Systems
EGR 469 Applications of Heat and Mass Transfer
EGR 470 Product and Process Design
EGR 475 Design of HVAC Systems

6. **Residency requirement:** A minimum of 24 credit hours in engineering courses must be taken at GVSU at the 300 level or above. These courses must include EGR 485 and 486.

7. **Completion of cooperative engineering education.**

EGR 289 Engineering Co-op Preparation
EGR 290 Engineering Co-op 1
EGR 390 Engineering Co-op 2
EGR 490 Engineering Co-op 3

Minor Programs

Requirements for a Computer Engineering Minor

A minor in computer engineering requires a minimum GPA of 2.0 in eight courses (29–30 credit hours) as follows:

Required Courses:

CS 162 Computer Science I
CS 262 Computer Science II
CS 351 Computer Organization and Assembly Language
EGR 214 Circuit Analysis I
EGR 226 Introduction to Digital Systems
EGR 326 Advanced Digital Systems
EGR 424 Design of Microcontroller Applications

Elective Courses (choose one of the following):

CS 362 Data Structures and Algorithms
CS 452 Operating Systems Concepts
CS 457 Data Communications

Requirements for an Engineering Science Minor

A minor in engineering science requires a minimum GPA of 2.0 in six courses (21 credit hours) as follows:

Required Courses:

EGR 101 Engineering Principles I
EGR 103 Engineering Principles II

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EGR 209 Statics and Solid Mechanics
EGR 226 Introduction to Digital Systems
EGR 214 Circuit Analysis I

Elective Courses (choose one of the following):

EGR 250 Materials Science
EGR 255 Materials for the Electrical Sciences
STA 313 Probability and Stochastic Processes
STA 314 Statistical Quality Methods

Sample Curriculum for the B.S.E. Degree

The following course sequence assumes an appropriate mathematics background for the entering student.

First Semester: Fall

MTH 201 Calculus and Analytic Geometry I
WRT 150 Strategies in Writing
EGR 101 Engineering Principles I
CHM 115 Principles of Chemistry I

Second Semester: Winter

MTH 202 Calculus and Analytic Geometry II
PHY 230 Principles of Physics I
EGR 103 Engineering Principles II
CS 162 Computer Science I

Third Semester: Fall

MTH 203 Calculus and Analytic Geometry III or CS 262 Computer Science II
PHY 234 Engineering Physics
EGR 209 Statics and Solid Mechanics
EGR 226 Introduction to Digital Systems
EGR 289 Engineering Co-op Preparation

Fourth Semester: Winter

MTH 302 Linear Algebra and Differential Equations
EGR 214 Circuit Analysis I
EGR 250 Materials Science or EGR 255 Materials for the Electrical Sciences or MTH 225
Discrete Structures: Computer Science
STA 313 Probability and Stochastic Processes or STA 314 Statistical Quality Methods
BIO 105 Human Ecology or BIO 103 The Biology of People or BIO 111 General Biology I
or BIO 112 General Biology II (Life Sciences Foundation)
(Admission to major standing in the B.S.E. program at this time.)

Spring-summer cooperative education experience: EGR 290

Fifth Semester: Fall

EGR 314 Circuit Analysis II or EGR 345 Dynamic System Modeling and Control
EGR 326 Advanced Digital Systems or EGR 367 Manufacturing Processes or EGR 360
Thermodynamics
EGR 315 Electronic Circuits I or EGR 371 Manufacturing Systems Simulation or EGR 312
Dynamics
ECO 211 Introductory Microeconomics or ECO 210 Introductory Macroeconomics (Social
Sciences Foundation)

Winter cooperative education experience: EGR 390

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Sixth Semester: Spring-Summer

CS 361 C and Unix or EGR 340 Electromagnetic Fields or EGR 309 Machine Design I
CS 363 Software Engineering or EGR 316 Electronic Circuits II or EGR 373 Production
Scheduling and Control or EGR 365 Fluid Mechanics
Computer engineering emphasis elective or EGR 413 Signals and Systems Analysis or EGR
450 Manufacturing Control Systems or a mechanical engineering emphasis elective
PHI 102 Ethics (Philosophy and Literature Foundation) or one course from the Ethics theme
Fall cooperative education experience: EGR 490

Seventh Semester: Winter

CS 452 Operating Systems or EGR 360 Thermodynamics or EGR 409 Machine Design II
CS 457 Data Communications or an electrical or manufacturing engineering emphasis
elective or EGR 468 Heat Transfer
Engineering emphasis elective
EGR 485 Senior Project I
General education course

Eighth Semester: Spring-Summer

Engineering emphasis elective
EGR 486 Senior Project II
Three general education courses

Graduate Programs

The Padnos School of Engineering offers the Master of Science in Engineering (M.S.E.) degree program with two emphases: (1) Manufacturing Engineering and (2) Manufacturing Operations. The Manufacturing Engineering Emphasis is open to students having an undergraduate engineering degree, while the Manufacturing Operations Emphasis is intended for students with an undergraduate engineering technology or related physical science degree. In addition, the Padnos School offers post-baccalaureate engineering certificate programs in Professional Practice, Production Operations, Manufacturing Design, and Manufacturing Controls and Automation. These programs can be completed in one to three years of part-time study. All credits earned in a certificate program can be applied toward the M.S.E. degree.

These programs are designed to meet the technical and professional development needs of practicing engineers. They focus on issues related to product design, development, manufacture, and production. The programs capitalize on the industrial experience of the students and projects can be tailored to the needs of students to provide a more meaningful educational experience. They are facilitated through the use of e-mail, electronic discussion groups, Internet technology, and project Web sites.

The programs are designed for the engineering practitioner currently employed in local industry. All courses are offered in a one-night-per-week format during the fall and winter semesters. The 600-level courses are each three credits and offered in the 6:00–8:50 p.m. time block. Students completing two courses per semester by attending classes two nights per week can complete the degree in three calendar years of part-time study. It is possible to complete the M.S.E. degree in as little as two years.

Admission

The Padnos School seeks mature graduate candidates who, as a result of their professional experience and undergraduate engineering education, desire to expand

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and continue their professional education in engineering. The Padnos School expects candidates to make effective use of opportunities to obtain academic and program advice from the faculty and to make maximum use of the courses to further their professional objectives.

In addition to the requirements listed in the Graduate Admission section of this catalog, candidates must satisfy all of the following:

1. Graduation from an accredited undergraduate program in either engineering, engineering technology, or an approved physical science. This program of study should have included: a two-semester course sequence in single variable calculus; a semester course in general chemistry; a two-semester course sequence in physics; a semester course in computer programming; a semester course in engineering graphics and computer-aided-design; a semester course in engineering mechanics; a semester course in dc and ac electric circuits with laboratory work; a semester course in engineering design; a semester course in materials science. Students who have graduated from programs deficient in one or more of these topic areas, must complete the appropriate courses at an accredited undergraduate institution before they can be considered for admission. Specific emphasis areas may require additional requirements. Of the currently offered emphasis areas, the manufacturing engineering emphasis requires the additional mathematics and design components included in an undergraduate engineering degree.
2. An undergraduate grade point average of at least 3.0 in all undergraduate coursework or a satisfactory score on the general section of the GRE.
3. Acceptable recommendations from at least two individuals attesting to the likelihood of the candidate's successful completion of the program, if requested by the Padnos School Graduate Admissions Committee.
4. At least one year of relevant industrial experience in an engineering-related position.
5. Candidates must have a base of underlying knowledge relevant to graduate study in the chosen emphasis. This can be demonstrated by previous academic study or work experience. Consultation with the program director may be necessary to verify appropriateness of work experience as a substitute for academic preparation. In particular, the material covered in relevant EGR 500-level courses or equivalent undergraduate courses form a background for study in the program. A student not having the appropriate background knowledge will be required to take one or more appropriate background courses.

Prospective candidates should hear from the school concerning admission into the program within one month after their application is complete. Candidates can be admitted to the program in either the fall or winter semester provided their application and transcripts of prior college work are in the Admissions Office at least two weeks before the semester begins.

Students who have not become degree-seeking may be allowed to enroll in 500-level engineering courses with permission of the program director. Potential graduate degree-seeking candidates may enroll in equivalent undergraduate courses.

All students registering for 600-level engineering courses must be degree-seeking in the M.S.E. program, or have permission of the program director.

Once admitted to the M.S.E. program, candidates are expected to devote sufficient time to complete the work assigned in each course. Although the demands are

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rigorous, the results can be exciting and rewarding. Candidates are expected to maintain the highest ethical standards at all times.

Academic Advising

Candidates seeking the M.S.E. degree can meet with the program director to discuss career interests, professional objectives, and program plans.

Advising sessions can be scheduled in the evenings for the benefit of candidates who work full time. Candidates should call the Padnos School office at the Eberhard Center for an appointment.

Graduate course registration can be completed by telephone or Internet or at an on-site registration session. The program director will assist the candidate in making registration arrangements.

Candidates will be sent or given tuition payment information and basic forms to complete and mail to the university before the semester begins.

Transfer Credit

A maximum of nine semester hours of transfer credit will be given for appropriate graduate courses completed with a grade of B (3.0) or above at another college or university. Only coursework completed in the five years prior to application will be considered for transfer. Transferred courses may be substituted for professional practice courses or for area emphasis courses as determined by the program director.

Academic Review

A cumulative grade point average of 3.0 or higher is required in all graduate-level courses. Additionally, a cumulative grade point average of 3.0 is required in all 600-level courses. A candidate must receive a grade of C or better in all graduate-level courses used to fulfill graduation requirements for the M.S.E. degree. In the case of required courses, a grade lower than a C will result in the candidate's having to repeat the course until an acceptable grade is achieved. Elective courses may either be repeated or other courses may be substituted to meet the minimum overall grade point average requirement.

A graduate candidate whose grade point average falls below 3.0 after completion of nine hours of graduate-level coursework will be placed on academic probation. Such candidates must achieve at least a 3.0 grade point average overall after the next nine hours of coursework to remain in the program. A grade point average of 2.0 or below after nine hours of graduate-level courses results in automatic dismissal.

Background Studies

Candidates must have, in addition to a general knowledge of engineering, a base of underlying knowledge relevant to the engineering discipline they wish to emphasize in their graduate studies. Many candidates will have completed courses in their undergraduate engineering programs that fulfill some or all of the background studies requirements. To ensure the integrity of background studies, undergraduate courses meeting the background requirements must have been taken in an accredited program, or its equivalent, and have been earned with a minimum grade of C. Candidates not meeting these criteria may be required to complete additional comparable background work. Candidates may complete

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special accelerated 500-level courses offered by the Padnos School in the relevant area(s); complete appropriate courses in the undergraduate engineering program at Grand Valley; or complete appropriate courses in any other accredited undergraduate engineering program. Courses taken to fulfill background studies are not counted as part of the 33-hour requirement for the M.S.E. degree. Questions should be addressed to the M.S.E. program director.

Students who are not proficient with contemporary engineering computer applications must complete the background course in contemporary computer tools (EGR 501) during their first semester. Computer-based writing skills, presentation skills, mathematical analysis skills, as well as Internet usage skills, are required for all other accelerated background courses and for all M.S.E. courses.

The relationship between background studies for an emphasis area and the M.S.E. curriculum requires that all background studies be completed by the time the student enrolls in the emphasis courses. The need for background studies is assessed on an individual basis in an interview with the program director. Students may, with the permission of the program director, complete background studies during the same semester they enroll in professional practice courses EGR 601 or 610.

For the M.S.E. degree with a Manufacturing Engineering Emphasis or a Manufacturing Operations Emphasis, these specific backgrounds must include contemporary computer tools, probability and statistics, and the traditional manufacturing processes. To address background subjects in which manufacturing emphases students may be deficient, three accelerated background courses are provided. These courses are

EGR 501 Contemporary Engineering Computer Tools
EGR 520 Traditional Manufacturing Processes
STA 513 Probability and Statistics for Engineers

The engineering and statistics 500-level background courses are each two credits. These courses are offered in an accelerated (half-semester, double pace) format held in the 5:30–8:45 p.m. time block. This scheduling format allows a student to complete two background courses each semester, if needed.

Background Equivalencies

Background requirements may be met by completion of either the 500-level accelerated courses or the undergraduate equivalent courses as indicated below.

Background Area	Background Course	GVSU Undergraduate Course
Contemporary Computer Tools	EGR 501 (two credits)	Integrated in B.S.E. curriculum
Traditional Manufacturing Processes	EGR 520 (two credits)	EGR 367 (four credits)
Probability and Statistics	STA 513 (two credits)	EGR 103 and STA 314 (six credits)

Requirements for the Certificate Programs

Each of the content areas in the M.S.E. program constitutes a certificate program. A certificate in Professional Practice, Production Operations, Manufacturing Design, and Manufacturing Controls and Automation is awarded to the student who successfully completes the respective content area. The last two courses in a content area must be completed at Grand Valley State University.

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Each of the content areas requires three courses and is designed to provide sustained coverage of a topic appropriate for manufacturing engineers in West Michigan. An engineering course may not be used to meet the course requirements of more than one certificate.

Admission criteria for a certificate program are identical to admission criteria for the M.S.E. degree program. Certificate candidates enroll in standard M.S.E. degree program courses, with grading criteria being identical. Should a certificate candidate decide to change to the M.S.E. degree program, all coursework taken toward the certificate will apply to the corresponding engineering content area in his or her M.S.E. degree program.

Requirements for the Master of Science in Engineering (M.S.E.)

The M.S.E. program requires 33 semester hours of 600-level graduate coursework distributed as follows:

1. **Professional Practice.** (nine credit hours)

EGR 601 Project Management
EGR 603 Law, Ethics, and the Environment
EGR 610 Engineering Design

2. **Emphasis.**

The student must pursue either the Manufacturing Engineering or the Manufacturing Operations emphasis.

A. **Manufacturing Engineering Emphasis:**

- a. Complete one of the following content areas (nine credit hours).

Production Operations (select three courses)

EGR 640 Production Operation Models
EGR 642 Materials Handling and Plant Layout
EGR 643 Manufacturing Simulation
EGR 644 Manufacturing Work Environments

Manufacturing Design (select three courses)

EGR 611 Computer-Aided Design and Engineering
EGR 612 Design for Manufacturability
EGR 620 Material and Process Selection
STA 615 Design of Experiments for Engineers

Manufacturing Controls and Automation

EGR 630 Contemporary Manufacturing Controls
EGR 632 Integrated Manufacturing Systems
EGR 643 Manufacturing Simulation

- b. Complete four approved graduate elective courses (12 credit hours).
c. Complete the capstone course EGR 693 Masters Project (three credit hours).

Note: Either EGR 612 or 692 must be taken as a prerequisite to 693.

B. **Manufacturing Operations Emphasis:**

- a. Complete the following content area (nine credit hours).

Production Operations (select three courses)

EGR 640 Production Operation Models
EGR 642 Materials Handling and Plant Layout
EGR 643 Manufacturing Simulation
EGR 644 Manufacturing Work Environments

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- b. Complete three approved graduate elective courses (nine credit hours).
- c. Complete the capstone sequence (six credit hours):
 - EGR 692 Master's Project Planning
 - EGR 693 Master's Project

Independent Study

Independent study is available for candidates interested in pursuing relevant special interests in areas where regular courses are not offered. These may consist of problem-solving projects, design projects, or other appropriate endeavors related to the candidate's present job and intellectual or career interests.

No independent study courses will be allowed in areas where courses exist and are taught at least once per year.

Only graduate degree-seeking candidates who have completed the professional practice courses or have special permission from the program director may take independent study courses.

All independent study topics and the amount of credit to be earned must be approved by the faculty member who agrees to supervise the course. A maximum of six credit hours can be granted for independent study. The conditions, meeting times, workload, and subject matter concerned with the project are mutually agreed to by the initiating candidate and the assenting faculty member, consistent with standards of quality education.

Graduate Assistantships

Graduate assistants work with the Padnos School faculty and staff to provide quality education, research, and service. Qualified full-time candidates are selected on the basis of aptitude, interest, and background.

Undergraduate Courses of Instruction

Numbers in parentheses at the end of course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

EGR 100 Introduction to Engineering. An introduction to engineering as a career. The major fields of engineering and the typical responsibilities of an engineer are introduced through the use of guest speakers and field trips. Grading is on a credit/no credit basis. One credit. Offered fall semester.

EGR 101 Engineering Principles I. Introduction to the engineering profession, an introduction to graphical communication and spatial analysis, sketching and pictorial views, orthographics, auxiliary views, sectioning, dimensioning, tolerancing, and working drawings. Survey of engineering concerns. Word processing. Computer-Aided Drafting and Design exercises with laboratory. Prerequisite: MTH 122 and 123 or college preparatory algebra and trigonometry. Corequisite: MTH 201. (2-0-3). Three credits. Offered fall semester.

EGR 103 Engineering Principles II. A continuation of EGR 101. Use of computers as aids in engineering analysis, introduction to statistics, error analysis, engineering economics, engineering problem-solving techniques, and engineering design project. Prerequisite: 101. Corequisite: WRT 150 and MTH 202. Laboratory. (2-0-3). Three credits. Offered fall and winter semesters.

EGR 105 Mechanical Shop Practice. Introduction to use of hand and power tools commonly used in engineering shop practice. Function and use of tools and safety in usage. Various exercises and short projects that involve the use of the most common tools and machines. Intended for students with little or no exposure to shop practice. Laboratory. (1-0-2) Grading is on a credit/no credit basis. Two credits. Offered winter and spring/summer semesters.

EGR 180 Special Topics in Engineering. Readings, lectures, discussions, or laboratories (or any combination) on specific engineering topics appropriate for freshman engineering

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students. Prerequisites: Variable depending on topic. One to four credits. Offered on sufficient demand.

EGR 209 Statics and Solid Mechanics. Vector algebra, particle and rigid body equilibrium, centroids, moments of inertia, internal loads, friction, stress-strain diagrams, generalized Hooke's law, stress and strain due to axial, torsional, shear, and flexural loads. Prerequisite: MTH 202 and PHY 230. (4-0-0). Four credits. Offered fall and spring/summer semesters.

EGR 210 Solid Mechanics. Designed for transfer students who have had a statics course but not a solid mechanics course. Topics include stress-strain diagrams, generalized Hooke's law, stress and strain due to axial, torsional shear, and flexural loads. Prerequisite: Sophomore-level course in statics. (1-0-0). One credit. Offered fall semester.

EGR 214 Circuit Analysis I. The first of a two-course sequence in linear circuit analysis. Topics include Ohm's Law, Kirchhoff's Laws, Thevenin's and Norton's Theorems, superposition, an introduction to the operational amplifier, AC phasor analysis, AC power, two-port network theory, and use of computer-aided circuit analysis software. Laboratory. Prerequisite: MTH 202. Corequisite: PHY 231. (3-0-3). Four credits. Offered fall and winter semesters.

EGR 226 Introduction to Digital Systems. A first course in the analysis and design of digital systems. Provides an introduction to digital systems and concentrates on the analysis of digital systems, Boolean algebra, combinational and sequential logic, microprocessor architecture, assembly language programming. Laboratory. Prerequisite: CS 162 or equivalent. (3-0-3). Four credits. Offered fall and winter semesters.

EGR 250 Materials Science. An introduction to materials science. The physical properties of metal, polymers, and ceramics are correlated with their (1) internal structures (atomic, molecular, crystalline, micro- and macro-) and (2) service conditions (mechanical, thermal, chemical, electrical, magnetic, and radiative). Prerequisites: CHM 115 and PHY 231. (3-0-0). Three credits. Offered winter semester.

EGR 255 Materials for the Electrical Sciences. An introduction to the science of materials with an emphasis on applications in electrical engineering. The electrical, optical, mechanical, and thermal properties of metals, ceramics, and plastics are correlated with their atomic, molecular, and crystalline structures. Prerequisites: CHM 115 and PHY 231. (3-0-0). Three credits. Offered winter semester.

EGR 280 Special Topics in Engineering. Readings, lectures, discussions, or laboratories (or any combination) on specific engineering topics appropriate for sophomore engineering students. Prerequisites: Variable depending on topic. One to four credits. Offered on sufficient demand.

EGR 289 Engineering Co-op Preparation. Introduces potential engineering cooperative education students to the industrial environment, the manufacture of quality products, and the basic principles of leadership. Helps students develop a better self-understanding through self-assessment and career development theory and prepares students for the co-op interview process. Prerequisite: 103. Corequisites: 209 and 226. (1-0-0). One credit. Offered fall semester.

EGR 290 Engineering Co-op I. The first full-time four-month cooperative engineering work experience usually in a local industrial/manufacturing firm. Reading, writing assignments required. At least one evening meeting required. Prerequisites: Acceptance into B.S.E. degree program, employability through standard interview process, EGR 289. Must have permission of the co-op director. Three credits. Offered spring/summer semester.

EGR 301 Basic Manufacturing Practices. An introduction to shop floor manufacturing information practice for business students. An overview of basic manufacturing processes, material handling, plant layout, basic product print and documentation reading, and an introduction to material resource planning systems. This course is not acceptable for credit toward the B.S.E. degree. (0-2-0). One credit. Offered fall and winter semesters.

EGR 302 Manufacturing Technology. The course explores the technology of modern manufacturing. Manufacturing technology is examined through discussions and hands-on use of engineering software, databases, networks, and automated equipment. Credit for this course is not acceptable toward the B.S.E. degree. Laboratory. (2-0-2). Three credits. Offered fall semester.

EGR 303 Manufacturing Processes and Materials. A survey of the materials and processes used in manufacturing. Topics include properties and forming of metals, plastics, ceramics,

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and composites; quality control processes and standards; metrology. This course is not acceptable for credit toward the B.S.E. degree. (3-0-0). Three credits. Offered winter semester.

EGR 304 Creativity and Innovation. An exploration of creative processes that foster development of new products and systems including the recognition of conditions and activities found in a creative climate. The balance between divergent thinking and judgment, the benefits and risks of creative behavior, and the nature of innovation and technological advancement are considered. Prerequisite: Completion of General Education Foundations Requirements. (3-0-0). Three credits. Offered winter semester.

EGR 309 Machine Design I. Topics include combined stresses, stress and strain transformation, failure theories, statically indeterminate members, beam deflection, columns, dynamic loading, fatigue, modified Goodman diagrams, fatigue failure theories, and design of shafts and springs for both static and dynamic loading. Laboratory. Prerequisite: 209. (3-0-3). Four credits. Offered spring-summer semester.

EGR 312 Dynamics. Study of motion and the relationship between force, mass, and acceleration for particles and rigid bodies. Work-energy and impulse-momentum concepts. Prerequisite: 209. (3-0-0). Three credits. Offered fall semester.

EGR 314 Circuit Analysis II. Continuation of EGR 214. Topics include: first- and second-order system transient analysis, Laplace transform analysis, sinusoidal steady state analysis, Bode plots, resonance, first- and second-order filters, Fourier series, and use of computer-aided design software. Laboratory. Prerequisites: 214 and MTH 302. (3-0-3). Four credits. Offered fall semester.

EGR 315 Electronic Circuits I. The design of discrete and integrated electronic circuits. Topics include large and small signal modeling of diodes, bipolar junction transistors, and MOS transistors. Biasing, small and large signal amplifier design, feedback, oscillators, and the use of computer-aided design software. Laboratory. Corequisite: 314. (3-0-3). Four credits. Offered fall semester.

EGR 316 Electronic Circuits II. A continuation of EGR 315. Topics covered include Bode plots, frequency response of transistor circuits, differential amplifiers, multistage amplifiers, power amplifiers, operational amplifier structures and design, feedback and its implementation, active filters, oscillators, and use of computer-aided design software. Laboratory. Prerequisite: 315. (3-0-3). Four credits. Offered spring/summer semester.

EGR 325 Electromechanics. A course covering the engineering science and design of electrical to mechanical transducers. Topics include three-phase circuit analysis and power, magnetic circuit design, solenoids, transformers, DC motors, synchronous alternators and motors, brushless DC motors, stepper motors, and an introduction to dynamic systems analysis. Laboratory. Prerequisite: 314 or 345. (3-0-3). Four credits. Offered winter semester.

EGR 326 Advanced Digital Systems. An advanced course in digital logic and microprocessors. Topics include combinational logic synthesis, sequential logic synthesis, complex PLDs, FPGAs, and interfacing of microprocessors to peripheral devices. Laboratory. Prerequisite: 214, 226. (3-0-3). Four credits. Offered fall semester.

EGR 340 Electromagnetic Fields. An intermediate-level study of electricity and magnetism for students of engineering. Vector analysis, electric and magnetic fields and forces. Maxwell's equations for time independent and dependent fields, electromagnetic field waves in free space, waveguides, and transmission lines. Computer applications are included. Prerequisites: PHY 231 and MTH 302. (4-0-0). Four credits. Offered spring/summer semester.

EGR 345 Dynamic System Modeling and Control. An introduction to mathematical modeling of mechanical, thermal, fluid, and electrical systems. Topics include equation formulation, Laplace transform methods, transfer functions, system response and stability, Fourier methods, frequency response, feedback control, control actions, block diagrams, statevariable formulation, and computer simulation. Emphasis on mechanical systems. Laboratory. Prerequisites: 214 and MTH 302. (3-0-3). Four credits. Offered fall semester.

EGR 350 Vibration. Study of mechanical vibration of structures and engineering components. Free and forced vibration of single-, two-, and multi-degree of freedom systems. Modal analysis and mode summation. Elements of analytical dynamics. Approximate numerical methods. Random vibration. Vibration measurement, isolation, and control. Prerequisites: 309 and 312 and MTH 302. (4-0-0). Four credits. Offered spring/summer semester.

EGR 352 Kinematics and Dynamics of Machinery. The kinematics of machines are analyzed explicitly and approximately using computer based mathematical techniques. Topics covered include planar mechanisms, positions, velocities, accelerations, spatial mechanisms,

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cams, gears, planar dynamics, and spatial dynamics. Prerequisite: 312, MTH 302. (4-0-0). Four credits. Offered winter semester.

EGR 360 Thermodynamics. Basic concepts of thermodynamics and an introduction to heat transfer. Properties of pure substances, equation of state, work, heat, first and second laws of thermodynamics, closed systems and control volume analysis, irreversibility and availability, refrigeration and power cycles, thermodynamic relations, introduction to conduction, convection, radiation, heat transfer, and heat exchanger design. Prerequisites: PHY 231 and MTH 302. (4-0-0). Four credits. Offered fall and winter semesters.

EGR 365 Fluid Mechanics. Fluid statics, control volume analysis, continuity, momentum, and energy equations, Bernoulli equation, dimensional analysis and similitude, laminar and turbulent pipe flows, differential analysis, Navier-Stokes equations, external flow, lift and drag, an introduction to compressible flow, inviscid flow, stress and potential functions, and Laplace equation. Applications to fluid machinery. Laboratory. Prerequisites: 312, 360, or permission of the instructor. MTH 302 and PHY 231. (3-0-3). Four credits. Offered spring-summer semester.

EGR 367 Manufacturing Processes. The fundamentals of manufacturing processes and the machinery of production. The forming of metals, plastics, ceramics and composites with an emphasis on the economics of engineering designs and designs that can be practically manufactured. Computer Aided Manufacturing and quality control processes. Metrology. Laboratory. Prerequisite: 250. (3-0-3). Four credits. Offered fall and winter semesters.

EGR 370 Engineering Acoustics. An introduction to acoustics and control of sound. Propagation of sound in air, enclosures, and architectural structures. Psycho-acoustics and human sensation to sound. Laboratory. Prerequisite: 314. (3-0-3). Four credits. Offered winter semester.

EGR 371 Manufacturing Systems Simulation. The application of the basic techniques of discrete event computer simulation to current manufacturing engineering practice. Process world view modeling, experiment design and analysis, and animation. Emphasis on case studies involving systems organization, operational strategies, material handling, scheduling, and logistics. Multiple case problems and a significant term project are required. Laboratory. Prerequisite: STA 314. (2-0-3). Three credits. Offered fall semester.

EGR 373 Production Scheduling and Control. Techniques for demand forecasting, capacity planning, production planning, inventory control, and operations scheduling are developed. Experience is gained in understanding the dynamics of production operations and production control systems. Prerequisite: Admission to major standing in the School of engineering. (4-0-0). Four credits. Offered spring-summer semester.

EGR 380 Special Topics in Engineering. Lecture, discussion, and/or laboratory in specific areas of engineering. Topics will reflect the special interests of the students and/or the instructor. Prerequisites depend on the nature of the topic. One to four credits. Offered upon demand.

EGR 390 Engineering Co-op 2. The second full-time four-month cooperative engineering work experience as described in 290. Prerequisites: 290, continued acceptance into B.S.E. degree program, and employability through standard interview process. Must have permission of the co-op director. Three credits. Offered each semester.

EGR 399 Readings in Engineering. Independent supervised readings on selected topics. Prerequisite: Permission of instructor. One to four credits. Offered fall, winter, and spring/summer semesters.

EGR 409 Machine Design II. Continuation of EGR 309. Topics include introduction to finite element method, local and global coordinates and stiffness matrices, shape function, isoparametric elements, design of screws, clutches, brakes, belts, gears, journal bearings, roller bearings, and planetary gear trains. Prerequisite: 309. (4-0-0). Four credits. Offered winter semester.

EGR 413 Signals and Systems Analysis. A course in the engineering applications of transform methods. The processing of analog, digital, deterministic and stochastic signals is discussed, as well as the analysis and design of processing systems. Topics include signal and system classification, vector space representations, convolution, impulse response, Fourier Transform, DTFT, DFT, FFT, windowing, time-frequency tradeoff, and Z transform. Prerequisite: 314. (3-0-0). Three credits. Offered spring/summer semester.

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EGR 414 Network Synthesis. An introduction to active and passive network synthesis. RC, RL, and RLC passive synthesis; active synthesis with an emphasis on active filter design. Laboratory. Prerequisite: 314. (3-0-3). Four credits. Offered fall semester.

EGR 415 Communication Systems. Topics include: noise, AM, FM, PM, PWM, and FSK modulation, multiplexing, and transmitter and receiver design. Laboratory. Prerequisite: 314 (3-0-3). Four credits. Offered winter semester.

EGR 416 Design with Analog Integrated Circuits. An introduction to analog electronic circuit design using operational amplifiers, instrumentation amplifiers, timers, D/A and A/D converters. Laboratory. Prerequisite: 316. (3-0-3). Four credits. Offered winter semester.

EGR 423 Digital Signal Processing Systems. The techniques and tools used for signal/system analysis and design in the digital domain. Filter design and frequency analysis are presented in the context of implementation on modern digital hardware. Hands-on experiments and design projects are a central component of the course. Prerequisite: 326, 413. (3-0-3). Four credits. Offered winter semester.

EGR 424 Design of Microcontroller Applications. The architecture and capabilities of single chip microcontrollers and the design of microcontroller applications. A/D and D/A conversion, I/O, timing, programming, expansion methods, and development systems. Design projects will be an integral part of both lecture and laboratory. Laboratory. Prerequisite: 326. (3-0-3). Four credits. Offered spring/summer semester.

EGR 425 Electronic Systems. The second of two courses that cover the current state of the art in electronic systems. Topics included are passive, active, and digital filter design; A/D and D/A converters; companding; digital signal processing; and microprocessor systems. Laboratory. Prerequisites: 312, 314, 326 and 360. (3-0-3). Four credits. Offered spring/summer semester.

EGR 426 Integrated Circuit Systems Design. An introduction to the analysis and design of digital and analog integrated circuits. Topics include digital devices, semiconductor memories, analog devices, programmable logic devices, FPGAs, and CPLDs. The lab exercises will introduce the students to the programming of PLDs and FPGAs using VHDL. Laboratory. Prerequisite: 315, 326. (3-0-3). Four credits. Offered spring/summer semester.

EGR 450 Manufacturing Control Systems. An introduction to the computer control of machines and processes widely used in manufacturing. Topics include programmable logic controllers, actuators and sensors for discrete and continuous systems, control computers, computer interfacing, A/D and D/A converters, command generation, and hierarchical control. The technical issues involved in implementing control schemes are presented. Laboratory. Prerequisites: 314 or 345, and 360. (0-3-3). Four credits. Offered spring/summer semester.

EGR 455 Automatic Control. An introduction to automatic control of physical systems: mathematical models of physical systems; basic control actions and industrial automatic controls; transient response analysis; error analysis and system optimization; root locus and frequency-response methods; state-space methods; system compensation and design. Laboratory. Prerequisites: 314 or 345, and 360. (3-0-3). Four credits. Offered spring/summer semester.

EGR 468 Heat Transfer. Study of the mechanisms by which heat is transferred in different media: conduction, convection, and radiation. One- and two-dimensional steady-state conduction, transient conduction, finite differences, methods in conduction, forced and free convections, heat exchangers, radiation processing and properties, and radiation exchange between surfaces. Laboratory. Prerequisite: 365. (3-0-3). Four credits. Offered winter semester.

EGR 469 Applications of Heat and Mass Transfer. Advanced modeling of unidirectional and multidirectional steady conduction, time dependent conduction, internal forced convection, flow of non-newtonian fluids (with special emphasis on plastics), mass transfer principles, and applications to molding/casting processes for plastics and metals. Prerequisite: 468. (0-3-0). Three credits. Offered spring/summer semester.

EGR 470 Product and Process Design. Principles of mechanical design, material selection, and manufacturing processes are integrated to support the design of products that are robust, affordable, and easily produced. The course includes product development, process planning, tool design, and design for manufacturability. Laboratory. Corequisite: 367. (3-0-3). Four credits. Offered winter semester.

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EGR 473 Strategic Manufacturing Engineering Considerations. A study of the pervasive issues in the Manufacturing Enterprise, including Life Cycle Analysis, Quality Function Deployment, environmentally responsible design, product safety, and economic justification. Prerequisite: 367. (4-0-0). Four credits. Offered spring/summer semester.

EGR 474 Integrated Manufacturing Systems. An introduction to the integration of machines and processes into manufacturing systems. Topics include methods for interconnecting and networking devices, organizing functional groupings such as work cells, production lines, material flow, collecting and organizing production data. The technical issues involved in implementing various control schemes will be presented. Laboratory. Prerequisite: 450. (0-3-3). Four credits. Offered spring/summer semester.

EGR 475 Design of HVAC Systems. Application of thermodynamics and fluid mechanics to the design of heating, ventilation, and air conditioning systems. Topics include heat load calculations, hot water and forced air systems, comfort/health factors, applicable codes, regulations, controls, equipment choice, and plant layout. Laboratory. Prerequisite: 468. (0-3-3). Four credits. Offered spring/summer semester.

EGR 480 Special Topics in Engineering. Readings, lectures, discussions, or laboratories (or any combination) on specific engineering topics appropriate for senior engineering students. Prerequisites: Variable depending on topic. One to four credits. Offered on sufficient demand.

EGR 485 Senior Engineering Project I (Capstone). An independent investigation of theoretical or experimental design problems in engineering. The nature and scope of the project are determined by the student in consultation with the instructor and depend upon the facilities available. Normally this project is carried out during the entire senior year, with one-hour of credit during the first semester and two hours of credit during the second semester. A written technical report is required. All seniors meet together each week to discuss their projects with each other and their supervisor. Laboratory. Open only to senior engineering students in good standing. (0-1-3). One credit. Offered winter semester.

EGR 486 Senior Engineering Project II (Capstone). Continuation of student's work in 485. Both an oral report and a final written technical report are required. Prerequisite: 485. (0-0-6). Two credits. Offered spring/summer semester.

EGR 490 Engineering Co-op 3. The third full-time, four-month cooperative engineering work experience as described in 290. Prerequisites: 390, continued acceptance into B.S.E. degree program, and employability through standard interview process. Must have permission of the co-op director. Three credits. Offered each semester.

EGR 499 Research in Engineering. Investigation of current ideas and techniques in engineering for upperclass students majoring in engineering. Content determined by the student in conference with professor. Completion of work includes a technical report and usually an oral presentation. Prerequisites: 25 credits in engineering and permission of the director of the School of Engineering. One to four credits. Offered on demand.

Graduate Courses of Instruction

EGR 501 Contemporary Engineering Computer Tools. Focus on contemporary computer tools and methods widely used in the practice of engineering. Topics include Internet communication and research, creation of written reports and presentations, performance of mathematical analysis, and manipulation and evaluation of data. Prerequisite: Permission of instructor. (0-2-0). Two credits. Offered fall and winter semesters.

EGR 520 Traditional Manufacturing Processes. Overview of the major processes by which durable goods are manufactured as well as material properties relevant to those processes. Mechanical properties of metals, plastics, glass, wood, and composites. Processes include casting, forging, drawing, sheet metal forming, material removal, joining, and fastening. Prerequisite: 250 or equivalent and 309 or equivalent. Corequisite: 501 or equivalent. (0-2-0). Two credits. Offered winter semesters.

EGR 601 Engineering Project Management. Introduction to the project management of engineering projects. Topics include problem identification, project planning, communicating and monitoring, project closeout, cost estimating, risk management, and managing small projects. Project work is used to reinforce the concepts covered. Prerequisite: admission to the M.S.E. program. (0-3-0). Three credits. Offered fall semester.

EGR 603 Law, Ethics and the Environment. A discussion-oriented course to expose students to relevant legal principles and ethical problems facing the practicing engineer. Case studies

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are used to develop opinions by examining private and public sector examples, and special attention is paid to environmental issues. Prerequisite: admission to the M.S.E. program. (0-3-0). Three credits. Offered winter semester.

EGR 610 Engineering Design. Application of various methods and approaches to engineering design using modern design tools. Design experiences are used throughout to develop designs. Mini design projects are assigned in interdisciplinary areas, machine design, heat transfer, and controls. Prerequisites: STA 513 or equivalent. Corequisite: 520 or equivalent. (0-3-0). Three credits. Offered winter semester.

EGR 611 Computer-Aided Design and Engineering. Computer generation of 3D parametric, feature-based geometric models and calculation of design parameters. Solid modeling, finite element modeling, and analysis. Design projects are included using industry standard applications software. Prerequisites: An undergraduate CAD course, 601, 610. (0-3-0). Three credits. Offered fall semester.

EGR 612 Design for Manufacturability. An integrated approach to producing capable designs. Topics include value engineering, cost estimating, break-even analysis, ergonomics, design for manufacturing processes and operations as well as for the environment, repair/maintenance, testing, and supportability. A course project is used to unify these topics. Prerequisites: 520 or equivalent, 611. (0-3-0). Three credits. Offered fall semester.

EGR 620 Material and Process Selection. A study of current topics in materials and manufacturing processes for engineering design. Topics selected from advanced metallic, polymeric, ceramic, and composite materials, surface treatment, and electrical materials. Prerequisites: 520 or equivalent. (0-3-0). Three credits. Offered fall semester.

EGR 630 Contemporary Manufacturing Controls. Methods for the design and implementation of non-linear control systems are examined. Topics include contemporary control methods such as petri nets, fuzzy logic, and neural networks. Control systems are discussed and implemented. Prerequisites: Admission to the program. (0-3-0). Three credits. Offered winter semester.

EGR 632 Integrated Manufacturing Systems. Topics required to implement an integrated manufacturing system are examined. Introductory topics include robots, CNC machines, networking, and databases. Advanced topics involve system modeling and integration of dissimilar functions using computers. Prerequisite: 630. (0-3-0). Three credits. Offered fall semester.

EGR 640 Production Operation Models. An emphasis on the design and control of production systems using models. Paced and unpaced assembly lines, unreliable serial lines, job shops, flexible manufacturing systems, group technology, facility layout, setup, sequencing, material handling, and storage and retrieval. Deterministic and stochastic models. Heuristic, analytic, and simulation techniques. Prerequisite: STA 513 or equivalent. (0-3-0). Three credits. Offered fall semester.

EGR 642 Materials Handling and Plant Layout. Exploration of the techniques and methods used for plant layout. Topics include organization of processes, work-flow, material handling techniques, analysis techniques, cost estimation, equipment selection, advanced material handling concepts, and computer-aided layout. Prerequisites: STA 513 or equivalent, 643 (may be taken concurrently). (0-3-0). Three credits. Offered winter semester.

EGR 643 Manufacturing Simulation. Discrete-event simulation of processes and systems used in manufacturing. Topics include probability modeling, random events generation, statistical analysis of output, and modeling of various material handling systems. A simulation language is used to model manufacturing facilities. Case studies are used to illustrate the capabilities of simulation languages. Prerequisites: STA 513 or equivalent. (0-3-0). Three credits. Offered winter semester.

EGR 644 Manufacturing Work Environments. The application of the classical techniques of industrial engineering to current manufacturing engineering practice. Methods engineering, work measurement techniques and applications, time standards, compensation, human behavior, human factors, cost and budgetary control. Emphasis on case studies. Prerequisite: STA 513 or equivalent. (0-3-0). Three credits. Offered fall semester.

EGR 680 Special Topics in Engineering. Lecture, discussion, and/or laboratory in specific areas of engineering. Topics will reflect the special interests of the students and/or the instructor. Prerequisites depend on the nature of the topic. One to three credits. Offered upon demand.

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EGR 685 Graduate Practicum. A full-time cooperative education engineering work experience usually with a local industrial/manufacturing firm. Practical aspects of modern engineering and problem solving culminating in a written report and formal presentation. Weekly reports and faculty supervisory meetings as required. Prerequisites: Completion of 12 credit hours of 600-level courses, permission of program administrator. Three credits. Offered every semester.

EGR 692 Masters Project Planning. Planning of an individualized project having an industrial focus. The nature and scope of the project are determined by the student in consultation with and approval of the instructor. Prerequisites: Completion of 12 credit hours of 600-level courses. (0-3-0). Three credits. Offered fall semester.

EGR 693 Masters Project (M.S.E. Capstone). A project involving the development of an engineered product or system. The nature and scope of the project are determined by the student in consultation with and approval of the instructor. Prerequisites: 692 or 612. (0-3-0). Three credits. Offered winter semester.

EGR 699 Independent Study in Engineering. Independent supervised study on selected topics. Prerequisite: Permission of instructor. One to three credits. Offered upon demand.

English (ENG)

Chair: Miller. Professors: Ford, Lockerd, Persoon, Smith, Whitehill; Associate Professors: Blumreich, Brehm, Chown, Franciosi, Jellema, Lai, Miller, Osborn, Swartzlander, Tucker, Tyson, Vander Broek, Webster, Wenner, Westra, White; Assistant Professors: Alvarez, Bloem, Eicke, Ihrman, Pearson, Remlinger, Schneider, Soljan, Tenderso, VanAntwerp, Watson, Winters, Wu.

English is one of the strongest preprofessional majors because the skills, knowledge, and understanding acquired are invaluable preparation for careers in education, law, business, medicine, and government service.

Students who major or minor in English find work in a variety of fields ranging from management to computer programming. Careers such as writing, teaching, library science, editing, and publishing are directly related to specific studies in English language and literature. The communications skills developed in the study of English are also important to careers in public relations, business management, and personnel counseling.

Beyond the practical benefits, however, a primary aim of the English program is to contribute directly to the liberal education of our majors by developing an awareness of the importance of language, the value of critical reading and effective writing, and the richness of the literature of the past and present. English majors learn to write clearly and persuasively, showing understanding of critical theory and literature from different historical periods.

Language and Literature Emphasis Objectives

Our language and literature students learn about the history and development of the English language, the periods and movements that make up the history of American and British literature, and the critical vocabulary used by today's literary scholars. English majors in the language and literature track also learn to write comprehensive essays about literary works, authors, periods, and movements, and to explicate the form and content of a literary work.

Teacher Certification Objectives

All of our majors seeking teacher certification learn about historical developments in the teaching of English. Our teaching majors become proficient at generating

English

theoretically sound ways of representing and formulating the subject matter of English studies, including language, literature, and writing.

Language Arts Emphasis Objectives

English majors in the language arts track are taught to organize, present, and explain concepts from the language arts (reading, writing, listening, and speaking) appropriate to the elementary classroom. Our language arts students learn about current theoretical work in the field and practice planning and implementing teaching that is likely to engage students in learning the integrated language arts. Students also demonstrate their knowledge of classic and contemporary literature for children and strategies for enhancing students' responses to such texts. Finally, our students demonstrate mastery of the writing process and strategies for developing in students the content and correctness appropriate to the elementary level.

English Education Emphasis Objectives

English majors in the English education track are taught to organize, present, and explain concepts from the language arts appropriate to the secondary classroom. Our English education students learn about current theoretical work in the field and practice planning and implementing teaching that is likely to engage students in learning the integrated language arts. Students also demonstrate their knowledge of classic and contemporary literature for young adults and strategies for enhancing students' responses to such texts. Finally, our students demonstrate mastery of the writing process and strategies for developing in students the content and correctness appropriate to the secondary level.

Requirements for the English Major

All English majors will earn the B.A degree, which requires third-semester proficiency in a foreign language. All English majors must also complete the English foundation courses and capstone, ENG 495, and choose an emphasis within the major.

Foundation Courses: 200 level (required of all majors) 15 hours:

1. ENG 220 British Literature I
2. ENG 221 British Literature II
3. ENG 225 American Literature I: to 1860
4. ENG 226 American Literature II: from 1860
5. ENG 261 Study of Modern English

Requirements for the Emphases

All English majors will choose one of the following emphases: Language and Literature, Language Arts, or English Education. Each emphasis requires different options from the following course categories:

Course Categories

A. Studies in Classical and World Literature

The courses in this category focus on works written in languages other than English that have influenced English literature, or otherwise attained world recognition. All texts will be read in English translation.

1. ENG 270 Homer and the Archaic Age
2. ENG 275 Ancient Drama

3. ENG 280 The Roman Response to Greece
4. ENG 303 Studies in World Literature

B. Studies in British Literary History

The courses in this category address important periods in British literary history and seek to define, explore, and broaden our understanding of the literature in the context of the historical moment. These courses focus on specific topics offered on a rotating basis: see department listings for specific course content each semester. Shakespeare is offered each semester; the other four courses are offered on a rotating basis (one each semester).

1. ENG 313 British Literature: Shakespeare
2. ENG 321 British Literature: Medieval
3. ENG 322 British Literature: Renaissance
4. ENG 323 British Literature: 18th-Romantic
5. ENG 324 British Literature: Victorian-Present

C. Studies in American Literary History

The courses in this category focus on important periods in American literary history and seek to define, explore, and broaden our understanding of the literature in the context of the historical moment. Courses in this category will focus on specific topics offered on a rotating basis: see department listings for specific course content each semester. One course offered each semester on a rotating basis.

1. ENG 325 American Literature to 1800
2. ENG 326 Nineteenth-Century American Literature
3. ENG 327 Modern American Literature
4. ENG 328 Contemporary American Literature

D. Studies in Reading and Authorship

The courses in this category focus on the pragmatics of literature. World literature will figure significantly in these courses. One course offered each semester on a rotating basis.

1. ENG 335 Literature of American Minorities
2. ENG 436 Women and Literature
3. ENG 440 Studies: Major Author(s)
4. ENG 445 Studies in Literary Criticism and Theory

E. Studies in Literary Genres

The courses in this category focus on the conventions, history, and important practitioners of the major genres. World literature will figure significantly in these courses. One course offered each semester on a rotating basis.

1. ENG 320 Studies in Poetry
2. ENG 330 Studies in Fiction
3. ENG 340 Studies in Drama
4. ENG 360 Studies in Non-Fiction

F. Linguistics and Language

The courses in this category focus on major topics in linguistics: language structure, language history, language and pedagogy, and language in social context. The courses introduce fundamental principles in linguistic theory and research. ENG 261 serves as a prerequisite for other linguistics courses.

1. ENG 362 History of the English Language
2. ENG 363 Applied Linguistics

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3. ENG 364 Sociolinguistics
4. ENG 365 Teaching English as a Second Language

G. Writing

The courses in this category focus on the theory and practice of writing. Close reading of professional samples and generalizing about those samples will figure significantly in these courses. Most of the courses are workshops in which students propose and share their work before submitting finished versions suitable for publication.

1. WRT 200 Introduction to Professional Writing
2. WRT 219 Introduction to Creative Writing

H. Pedagogy

The courses in this category focus on the teaching of English and the Language Arts in elementary and secondary schools.

1. ENG 308 Teaching Reading
2. ENG 309 Teaching Literature to Children
3. ENG 310 Teaching Writing
4. ENG 311 Teaching Literature to Adolescents
5. ENG 400 Language Arts for Teachers (must be taken with Student Assisting)

Literature and Language Emphasis Requirements

This emphasis involves intensive analysis of literary works, study of the English language, and explorations of various literary theories. It is designed for students seeking solid academic preparation in a liberal arts field. It is an excellent program for students who plan to apply to graduate school in a variety of fields, including medicine, law, and business. It is also appropriate for those who plan to seek employment immediately after their bachelor's degree, particularly in careers such as business, journalism, freelance writing, government service, and advertising. It is recommended for those planning graduate studies in academic fields such as linguistics, British literature, American literature, and comparative literature. This emphasis is of value because it develops abilities in reading, writing, and analytical thinking, which are beneficial in nearly every profession.

Requirements for the Emphasis

Foundation courses (15 hours)

Elective requirements (21 hours):

Two courses from category B, one of which must be ENG 313, British Literature: Shakespeare. One course from each of these categories: A, C, D, E. One additional course from any one of these categories: A, B, C, D, E, F, or G.

Capstone (3 hours).

Total: 39 hours

Teaching Emphases

Language Arts (Elementary) Emphasis Requirements:

Foundation courses (15 hours)

Track requirements (nine hours)

- ENG 309 Teaching Literature to Children
- ENG 310 Teaching Writing
- ENG 400 Language Arts for Teachers

English

Elective requirements (nine hours):

ENG 204 or one course from category A; one course from category F; one course from category A, B, C, D, E, or G.

Capstone (3 hours)

Total: 36 hours

English Education (Secondary) Emphasis Requirements

Foundation courses (15 hours)

Track requirements (nine hours)

ENG 310 Teaching Writing

ENG 311 Teaching Literature to Adolescents

ENG 313 British Literature: Shakespeare

Elective requirements (nine hours)

Select any course from Category F, G, and any course from Categories A, B, C, D, or E.

Capstone (3 hours)

Total: 36 hours

English Minor

The English minor is designed for the student who desires a general study of English through literature, linguistics, and writing. It is also designed for those seeking minor certification in English. The minor is 21 hours; those seeking English as a teachable minor must complete 27 hours.

WRT 200 Introduction to Professional Writing or 219 Creative Writing Workshop or 352 Advanced Composition	3
ENG 220 British Literature I and 221 British Literature II or 225 American Literature I: to 1860 and 226 American Literature II: from 1860	6
ENG 313 British Literature: Shakespeare	3
ENG 261 The Study of Modern English	3
One course from category A	3
One course from category B, C, D, or E	3
	<hr/>
	21 credits

For students seeking certification in English:

Basic minor	21
ENG 310 Teaching Writing	3
ENG 311 Teaching Literature to Adolescents	3
	<hr/>
	27 credits

Post Baccalaureate Teacher Certification in English

Students who have earned a baccalaureate degree in English from another institution and who have come to Grand Valley to earn teacher certification must consult with an English advisor before beginning that program. Additional courses may be required based on the following:

1. Length of time since the degree was earned.
2. Grades earned in the major.
3. Apparent coherence of the major.

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4. Inclusion of essential professional courses:

- a. For elementary: ENG 309, 310, 400, and CTH 107 or CTH 366 or COM 201.
- b. For secondary: ENG 261, 310, 311, and either 220 and 221 or 225 and 226.

Requirements for an English Concentration in M.Ed.

The English Department offers graduate courses that may be used in cooperation with the GVSU School of Education to fulfill the requirements for an English Concentration in M.Ed. degree in Secondary Instruction.

Admission

Students apply to the School of Education for admission to the M.Ed. program. Students who elect an English Concentration in that degree are assigned an advisor in the English Department to direct the English segment of their study within the M.Ed. program (see the section on the School of Education, The Graduate Program). Students applying for the English Concentration should have an undergraduate major or minor in English or the equivalent.

Course Requirements for the English Concentration

Students must complete 15 semester credits in English approved by the English Department. Those courses must be taken from the following groups of courses as indicated.

Literary periods, authors, or topics—two courses from the following:

ENG 603 Seminar in British Literature
ENG 605 Seminar in American Literature
ENG 651 Literary Period Seminar
ENG 661 Author or Topic Seminar
ENG 663 Shakespeare Seminar

Literature focusing outside the traditional canon—one course from the following:

ENG 612 Women Writers
ENG 614 Literature of American Ethnic Minorities
ENG 616 Third World Literature

Literary theory or genre—one course from the following:

ENG 621 Literary Theory and the Teaching of Literature
ENG 624 Genre Studies

Writing or language theory—one course from the following:

ENG 631 Teaching Writing
ENG 633 Advanced Writing
ENG 641 History of the English Language

Requirements for a TESOL Concentration in M.Ed. and ESL

Endorsement

The English Department and the School of Education jointly offer an M.Ed. degree with a TESOL emphasis in General Education as well as a graduate-level ESL endorsement program leading to state ESL endorsement. The M.Ed.-TESOL, which leads to K—12 endorsement, requires 33 semester hours of coursework, 12 of which (four courses) are fulfilled in the English Department and the rest in the School of Education. The same 12 hours are also required for completing the 21-hour ESL endorsement program, which leads to K—8 or 7–12 endorsement.

Admission

Students wishing to pursue either the M.Ed.-TESOL or ESL endorsement or both should apply to the School of Education for admission. Applicants should have an undergraduate major in English, education, linguistics, applied linguistics, or a related field. Current English, ESL, language arts teachers, or other certified elementary or secondary school teachers who wish to be officially endorsed to teach ESL are also welcome to apply. Requests for transfer of credits from another institution will be evaluated on a case-by-case basis. No credits will be accepted if they were earned more than five years ago, at Grand Valley or elsewhere. Contact the School of Education for specific admissions and transfer requirements.

Course Requirements for Both M.Ed.-TESOL and ESL Endorsement Programs

Students must complete the following 12 semester hours in English as part of their M.Ed. and/or ESL endorsement program:

ENG 660 Principles of Educational Linguistics
ENG 664 Sociolinguistics and Language Teaching
ENG 665 Second Language Acquisition
ENG 668 Second Language Assessment

Extracurricular Activities

English Club. Students interested in English are invited to participate in the English and Language Arts Club, which sponsors films, poetry readings, visiting lecturers, and social events.

NCTE. The department's NCTE affiliate group makes membership in the National Council of Teachers of English available at student rates. This group is of special interest to language arts majors and English majors in secondary education.

Sigma Tau Delta. Grand Valley's Chapter of the National English Honor Society honors excellence in English studies and fosters interest in literature and language scholarship, as well as creative writing. English majors who have achieved a GPA of 3.0 or better in English courses and rank in the top third of their class may apply.

Italics: A Student Journal of Art and Writing. The literary arts magazine publishes creative work of students twice yearly and is edited by undergraduate students.

Oldenburg Writing Contest. A departmental writing contest, carrying cash prizes for essays and creative writing, is conducted annually.

Other Activities. In addition, a great variety of campus-wide opportunities is available to students interested in language and literature: films, poetry readings, lectures, production of plays; and work on the student newspaper, *The Lanthorn*, and on the campus radio and television stations.

Courses of Instruction

ENG 203 World Literature. Readings of major drama, poetry, and novels from medieval times to the present, translated from major European and world languages. Authors such as Dante, Voltaire, Mann, Tolstoy, Kafka, Narayan, and Borges offer varied literary glimpses of foreign worlds. Fulfills Philosophy and Literature Foundation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 204 World Mythology. A comparative look at myths, folk tales, and fairy tales and how they derive from, and work on, the mind of a culture, both socially and aesthetically. Examines these tales as works of art in their own right and also as metaphors expressing a

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society's major values, themes, and preoccupations. Fulfills World Perspectives requirement. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 205 Literatures in English. Introduction to British, American, and other literatures written in English organized around a theme, period, or, nationality. The course emphasizes close reading, writing skills, and introduces students to a variety of genres and cultural contexts for reading and understanding literature. Fulfills Philosophy and Literature Foundation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 212 Introduction to Shakespeare. An introduction to the foremost dramatist and poet in the English language. To complement the students' reading, film versions of several plays will ordinarily be presented. Fulfills Philosophy and Literature Foundation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 220 British Literature I. A survey of early British literature from *Beowulf* in the old English period through Chaucer in the middle English period, and such authors as Spenser, Marlowe, Shakespeare, Jonson, Donne, and Milton in the Renaissance. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 221 British Literature II. A survey of later British literature from the Restoration and the Eighteenth century, the Romantic and Victorian periods, modernism, and contemporary Anglophone literature. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 225 American Literature I: to 1860. A survey of American literature from its beginnings to 1860. Significant attention will be given to the writings of women and minorities. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 226 American Literature II: from 1860. A survey of American literature from the Realist period to the present. Significant attention will be given to the writings of women and minorities. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 231 Early African American Literature. Analysis and discussion of discourse primarily written by African Americans during the formative years of this nation. Emphasizes literary discourse as a means of defining African American consciousness and community, and understanding how African Americans communities of origin shaped African-American discursive expression. Cross-listed with AAA 231. Students may not receive credit for both. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall semester.

ENG 232 Modern African American Literature. Analysis and discussion of discourse by and about African Americans primarily written during the twentieth century. Emphasizes literary discourse as a means of defining African American consciousness and community and understanding how the communities African Americans inhabit shaped their discursive expression. Cross listed with AAA 232. Students may not receive credit for both. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered winter semester.

ENG 261 Study of Modern English. An introduction to linguistic principles through a study of modern English. A review of historical and contemporary writings about the language and language use. Discussion of the premises underlying various approaches to English grammar, and the use of these grammars to understand English phonology, morphology, and syntax. Three credits. Offered fall and winter semesters.

ENG 270 Homer and the Archaic Age. The epics of Homer and the literature of the archaic age of Greece studied in their cultural context. In addition to the *Iliad* and *Odyssey*, selections from the Homeric Hymns and works of such authors as Hesiod, Sappho, and Parmenides will be included. All works read in English translation. Cross-listed with CLA 270. Students may not receive credit for both classes. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered odd years, fall semester.

ENG 275 Ancient Drama. A study of the drama of ancient Greece and Rome, from playwrights such as Sophocles, Euripides, Aristophanes, and Plautus. Readings of tragedy and comedy will be augmented by considerations of ancient dramatic theory and the possibilities of

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performance on the ancient and modern stage. All works read in English translation. Cross-listed with CLA 275. Students may not receive credit for both classes. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered even years, winter semester.

ENG 280 The Roman Response to Greece. A study of the major works of Roman literature and the ways in which they reveal Rome's adoption and transformation of the cultural experience of ancient Greece. Emphasis on epic, lyric, and drama, including such authors as Virgil, Ovid, Horace, and Plautus. All works read in English translation. Cross-listed with CLA 280. Students may not receive credit for both classes. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered even years, fall semester.

ENG 303 Studies in World Literature. An in-depth comparative study of texts, themes, genres, and authors from literatures of the world in translation, including one or more from the following areas: Africa, Middle East, Asia, India, Latin America, the Caribbean, and Europe. Prerequisite: Fulfillment of the Freshman Writing Requirement and one literature course. Three Credits. Offered odd years, winter semester.

ENG 308 Teaching Reading: The Necessary Skills. Application of linguistic principles to decoding and comprehension skills and to theories underlying the developmental and the language-experience approaches to teaching reading. Each student is required to tutor a pupil, administer an informal diagnostic test, and report on outside readings. Prerequisite: Fulfillment of the Freshman Writing Requirement. Four credits. Offered fall and winter semesters.

ENG 309 Teaching Literature to Children. Introduces to students the important materials (classic and contemporary), teaching strategies, issues, and research related to children's literature as well as guiding the reading of children. Required for Language Arts majors. Should be taken prior to Student Teaching (ED 403). Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 310 Teaching Writing. A study of the writing process and of current theories of rhetoric, discourse analysis, language acquisition, and reading, all applied to teaching writing on the college, secondary, and elementary levels. A tutoring practicum is required, and students will also work on their own writing. Required for the language arts major and secondary teacher certification English major. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

ENG 311 Teaching Literature to Adolescents. Introduces to students the important classic and contemporary materials (including works by women and writers of color and/or ethnic diversity), teaching strategies, issues, and research related to adolescent literature as well as the criteria for guiding the reading of adolescents. Prerequisite: Fulfillment of the Freshman Writing Requirement. Should be taken prior to Student Teaching (ED 407). Three credits. Offered fall and winter semesters.

ENG 313 British Literature: Shakespeare. An in-depth study of the range of Shakespeare's work in its historical and critical context, including selections from Comedy, Tragedy, History, Romance, and poetry. Prerequisites: 220 and 221 or permission of instructor. Three credits. Offered fall and winter semesters.

ENG 320 Studies in Poetry. Focuses upon the formal properties of poetry and studies the conventions of the genre as it develops within or across historical periods and/or cultures. Prerequisite: Two foundation courses or declared Writing minor. Three hours. Offered odd years, fall semester.

ENG 321 British Literature: Medieval. An in-depth study of selected texts, themes, and authors representative of British literature up to 1500. Topics vary by semester. Prerequisite: Fulfillment of the Freshman Writing Requirement and ENG 220 and 221 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered odd years, fall semester.

ENG 322 British Literature: Renaissance. An in-depth study of selected texts, themes, and authors representative of British literature in the Renaissance. Topics vary by semester. Prerequisites: Fulfillment of Freshman Writing Requirement and ENG 220 and 221 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered even years, winter semester.

ENG 323 British Literature: 18th-Romantic. An in-depth study of selected texts, themes, and authors of British literature from the Restoration through the Romantic period. Topics vary by semester. Prerequisites: Fulfillment of the Freshman Writing Requirement and ENG 220

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and 221 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered even years, fall semester.

ENG 324 British Literature: Victorian-Present. An in-depth study of texts, themes, and authors representative of British literature and post-Colonial Anglophone literature from the Victorian period through the present. Topics vary by semester. Prerequisites: Fulfillment of the Freshman Writing Requirement and ENG 220 and 221 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered odd years, winter semester.

ENG 325 American Literature to 1800. Intensive study of major authors, literary movements, and themes from America's pre-Colonial beginnings through the Revolution. Topics may include Native American myth and poetry; literature of discovery and conquest; Puritan writings; autobiography; captivity and slave narratives; literature of Revolution and the new Republic; early American poetry, drama, and fiction. Prerequisites: Fulfillment of the Freshman Writing Requirement, ENG 225 and 226 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered odd years, fall semester.

ENG 326 Nineteenth-Century American Literature. Intensive study of major authors, literary movements and themes from the post-Revolutionary War Period to 1900. Topics may include the American Renaissance; Transcendentalism; Realism; Local Color Writers; African-American slave narratives and autobiographies; the Civil War; Naturalism; and developments in nineteenth-century literary genres. Prerequisites: Fulfillment of the Freshman Writing Requirement, ENG 225 and 226 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered even years, winter semester.

ENG 327 Modern American Literature. Intensive study of major authors, literary movements and themes from 1900 to 1945. Topics may include Modernism, the Harlem Renaissance, the Wasteland Generation; Literature of American Expatriates; New York City; the South; the West; the Depression; World Wars I and II; and developments in modern literary genres. Prerequisites: Fulfillment of the Freshman Writing Requirement, ENG 225 and 226 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered even years, fall semester.

ENG 328 Contemporary American Literature. Intensive study of major authors, literary movements, and themes from 1900 to 1945. Topics may include Postmodernism; Metafiction; the Beat Generation; Minimalism; Ethnic Autobiography; the 1960s and the Absurd; New Journalism; African, Latino/a and Native-American writings; Language and Confessional poetry; the Non-Fiction Novel; Travel Narratives, and developments in contemporary genres. Prerequisites: Fulfillment of the Freshman Writing Requirement, ENG 225 and 226 or permission of instructor. May be repeated for credit if content varies. Three credits. Offered odd years, winter semester.

ENG 330 Studies in Fiction. Focuses on the formal properties of fiction and studies the conventions of the genre as it develops within or across historical periods and/or cultures. Prerequisite: Any two foundation courses or declared Writing minor. Three hours. Offered even years, winter semester.

ENG 335 Literature of American Minorities. Studies the importance and variety of the literature of African American, Native American, Asian American, and Hispanic American authors. Emphasis on themes, literary styles, and the historical and social experience of marginality on the literature. Part of Perspectives from the Outside theme. Prerequisite: Completion of the Freshman Writing Requirement. Three credits. Offered fall semester.

ENG 340 Studies in Drama. Focuses on the formal properties of drama and studies the conventions of the genre as it develops within or across historical periods and/or cultures. Prerequisites: Two foundation courses or declared Writing minor. Three hours. Offered even years, fall semester.

ENG 360 Studies in Non-Fiction. Focuses on the formal properties of one or more non-fictional genre as the genre develops within or across historical periods and/or cultures. Prerequisite: Two foundation courses or declared Writing minor. Three hours. Offered odd years, winter semester.

ENG 362 History of the English Language. Examination of the external and internal history of the English language from Old English to present day English. Investigation of regional and social varieties of English and the question of usage in the context of cultural change. Prerequisite: 261. Three credits. Offered fall semester.

ENG 363 Applied Linguistics. Application of contemporary linguistic theory and research to issues in language, literacy, and learning. Consideration of first and second language

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acquisition, literacy, bilingualism, ESL, language variation including gender and nonstandard dialects, language pedagogy, and language attitudes and their relevance to classroom practices. Prerequisite: 261. Three credits. Offered winter semester.

ENG 364 Sociolinguistics. Study of sociolinguistic theories investigating the interaction of language and society. An examination of the social and cultural aspects of language and language use: social stratification, power, gender, race, ethnicity, class, geographic origins, and networks. Prerequisite: 261. Three credits. Offered winter semester.

ENG 365 Teaching English as a Second Language. Examination of the relevant issues of language, culture, and methodology for teachers of ESL students. Consideration of first and second language acquisition theory, language politics, second language teaching methodologies, and the classroom application of these issues. Prerequisite: 261. Three credits. Offered even years, fall semester.

ENG 378 Contemporary Latin American Literature. A survey of Latin American literature of the past three decades, in English translation, taking in a variety of nations, regions, and cultures, including Afro-Latin and indigenous voices. Genres include the novel, the short story, poetry, drama, testimonial narrative, speeches, folklore, and film. Prerequisites: Fulfillment of the Freshman Writing Requirement and one literature course (SPA 330 for Spanish majors). Three credits. Offered winter semester of even-numbered years.

ENG 380 Topics in Literature. Studies of selected authors, concepts, movements, periods, theories, or genres. Topics will be announced in the class schedule and prerequisites may be listed. May be repeated for credit. Prerequisite: One literature foundation course. Three credits.

ENG 382 Nature Writing. Focuses on the literature that deals with the relationship between human beings and the natural world. Includes literary non-fiction, nature poetry, environmental fiction, and other forms of literature that illuminate both human and non-human nature. In addition to writing analytical papers, students will try several forms of nature writing. Part of Earth and Environment theme. Three credits. Offered winter semester.

ENG 383 "Make It New": Literary Modernism. From the cafes and "little magazines" of Paris emerged writers forging a new way to express the new realities of the twentieth century. Exploration of the literature in its cultural context. Part of Changing Ideas: Changing Worlds theme. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall semester.

ENG 384 Literary Responses to War and Peace. Course uses literary texts to explore the causes and consequences of war from a variety of perspectives. Works may include short stories, novels, poetry, non-fiction essays, autobiographies. Part of Making War and Peace theme. Three credits. Offered winter semester.

ENG 385 Writing and Revolution in the Americas. Examines literary responses to various forms of revolutionary change in the Americas. Students consider the ways in which writers have responded to major transformations in societies across the Western Hemisphere. Profound societal changes are examined against the backdrop of everyday life and the persistence of the status quo. Part of Revolution and Evolution in Americas theme. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered winter semester.

ENG 390 Topics in Language and Rhetoric. Variable content. Course will focus on a problem (or problems) in the history or structure of English, or on a specific problem in the practice or theory of rhetoric. Among such topics are the following: dialects, Black English, artificial languages (Esperanto-Newspeak), semantics, language and politics. May be repeated for credit. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits.

ENG 392 Language and Power. Examines language as a means of achieving personal and cultural freedom and as a tool for controlling and oppressing others. Students study various theories of language use and explore the tension between our right to use language freely and our need to protect ourselves from the way others use language. Part of Freedom and Social Control theme. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered winter semester.

ENG 399 Independent Studies. Before registration, the student must arrange for supervision by a faculty member and submit a contract (available in the English office) specifying the scope of the proposed study. No more than three credits in English 399 may be applied to the major or minor. Prerequisite: Fulfillment of the Freshman Writing Requirement. One to four credits. Offered fall and winter semesters.

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ENG 400 Language Arts for Teaching. Integrates the theories of teaching elementary children the skills of reading, writing, speaking, and listening. Prerequisites: Senior standing. Taken concurrently with ED 330. Three credits. Offered fall and winter semesters.

ENG 436 Women and Literature. An in-depth study of major women writers and their historical, cultural, and artistic contributions. Significant attention will be given to the writings of minorities. Prerequisites: Completion of foundation courses and one 300-level literature course. Offered even years, winter semester.

ENG 440 Studies in Major Author(s). An in-depth study of one or two major literary figures, with an emphasis on biography, major works, and influence. Prerequisites: Completion of foundation courses and one 300-level literature course. May be repeated for credit if content varies. Three credits. Offered even years, fall semester.

ENG 445 Studies in Literary Criticism and Theory. An in-depth study of critical and theoretical approaches to literature, with an emphasis on the development of theories of literature from classicism to post-modernism. Prerequisites: Completion of foundation courses and one 300-level literature course. Offered odd years, winter semester.

ENG 490 Internship. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. As a rough guide, the student should expect to spend 45 hours per semester in the internship and supporting academic work for each credit awarded. Credit is awarded only when the student, the faculty sponsor, and the work supervisor have completed evaluations of the internship. One to three credits. Offered every semester.

ENG 495 Language and Literature (Capstone). Capstone course required of all English majors. Focuses on the issues and problems inherent in the study of language and literature through the comparative study of twentieth-century critical theories, with significant attention to current trends. Prerequisites: English foundation courses and senior standing. Three credits. Offered fall and winter semesters.

ENG 499 Writing Project. Advanced, supervised work on a substantial piece of writing, such as a novel or play, or a series of articles, short stories, or poems. Students register for this course upon recommendation of a faculty member. Three credits. Offered fall and winter semesters.

ENG 603 Seminar in British Literature. Aims at a synthesis of the development of British literature through a study of important literary themes, examining them closely in major works representative of the periods of British literature. Seminar presentation and research paper are required of each student. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 605 Seminar in American Literature. Aims at a synthesis of the development of American literature through a study of important literary themes, examining them closely in major works representative of the periods of American literature. Seminar presentation and research paper are required of each student. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 612 Women Writers. An in-depth study of selected works of women writers with attention to the literary and social contexts in which they wrote. Issues concerning the development of literature written by women and its status with regard to the canon will be addressed. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 614 Literature of American Ethnic Minorities. An in-depth study of selected pieces of African-American, Hispanic, Asian-American, Native American or immigrant American literature. Issues concerning the development of minority literature and its status with regard to the canon will be addressed. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 616 Third World Literature. An in-depth study of selected pieces of Asian, African, or South American literature. Issues concerning the development of Third World literature and its status with regard to the canon will be addressed. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 621 Literary Theory and the Teaching of Literature. A study of literary theories with emphasis on current theories (including psychoanalysis, feminism, reader-response theory, Marxism, and deconstruction) in order to learn how these perspectives can be used in the

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classroom to enrich students' reading of literature. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 624 Genre Studies. Intensive study of the historical development of a selected genre (poetry, drama, fiction, literary non-fiction) and of the nature of the genre, focusing on selected works. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 631 Teaching Writing. A study of current writing theory and its implication for teaching writing. Includes application of theory in classroom teaching and work on the student's own writing. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 633 Advanced Writing. An intensive writing course designed to help teachers develop their own writing using various forms of creative and expository writing. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 641 History of the English Language. Presents the assumptions and historical background necessary to an understanding of the changes in the English language. Also emphasizes one aspect of linguistic change, such as vocabulary and dictionaries, varieties of English, grammatical change, or phonology. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 651 Literary Period Seminar. Intensive study of a period of British, American, or world literature. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 660 Principles of Educational Linguistics. An introduction to contemporary linguistics and how linguistic concepts are used in educational contexts. Major component areas of phonetics, phonology, morphology, semantics, syntax, pragmatics, language variation, and language acquisition will be examined. Pedagogical relevance and implications for teaching are an integral part of linguistic analysis. Required of those seeking Michigan ESL endorsement. Three credits. Offered fall semester.

ENG 661 Author or Topic Seminar. Intensive study of a work (or works) of a single author or focused literary topic. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 663 Shakespeare. An in-depth study of selected plays, focusing on historical context, interpretive methods, and the development of Shakespeare's genius. Prerequisite: Completion of English major or minor or consent of instructor. Three credits. Offered every other year.

ENG 664 Sociolinguistics and Language Teaching. The study of sociolinguistic theories investigating the interaction of language and society in the classroom, grades K—12. An examination of the social and cultural aspects of language, language use, and teaching. Particular emphasis on English as a second language, bilingual and multilingual educational situations, and cultural influences on learning, communications, and ideology. Required of those seeking Michigan ESL endorsement. Prerequisite: Completion of 660 or equivalent. Three credits. Offered winter semester.

ENG 665 Second Language Acquisition. An examination of the major theories of second language acquisition and various factors that influence the learning process among different age groups of learners from different first language backgrounds. The relationship between SLA research and its pedagogical implications for teachers is also addressed. Required of those seeking Michigan ESL endorsement. Prerequisite: Completion of 660 or equivalent. Three credits. Offered winter semester.

ENG 668 Second Language Assessment. An examination of the basic concepts in language testing, with special focus on K—12 and adult learners of English as a second language. Areas of coverage include test selection, evaluation, development, and application. Both qualitative and quantitative methods will be addressed, though the latter are the primary concern. Required of those seeking Michigan ESL endorsement. Prerequisite: Completion of 660 or equivalent. Three credits. Offered fall semester.

Reading Skills

ENG 095 Reading Skills I. Required for entering students whose scores on a standardized test indicate a need for a developmental reading program. Includes work in the areas of

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comprehension, word study, and vocabulary development. Three (non-graduation) credits. Credit/no credit. Offered fall and winter semesters.

ENG 097 Reading Skills II. A continuation of 095 for those students needing further instruction in developmental reading. Also required for students whose standardized test scores indicate that they may have difficulty comprehending minimum college-level materials. Three (non-graduation) credits. Credit/no credit. Offered fall and winter semesters.

ENG 099 College Efficiency and Reading Training. For students whose standardized test scores indicate proficiency with minimum college level material, but who want to learn to make the most efficient use of their reading and thinking skills. Emphasis on reading efficiency, vocabulary development and critical reading. Three (non-graduation) credits. Offered fall and winter semesters.

English as a Second Language

ESL 098 English as a Second Language (ESL): Composition. Provides non-native speakers of English with a practical review of English grammar and instruction in paragraph and essay organization and writing. As part of the course, students work one hour per week with a peer consultant in the Writing Center. Four (non-graduation) credits. Offered winter semester.

Freshman Studies (FS)

Director: Donald Williams.

The Freshman Studies Program assists first-year students in their transition to university life by guiding them through the academic portion of summer orientation, providing academic advising, and offering a one-credit course called Freshman Seminar (FS 100) each fall semester. Institutional data suggest that students who enroll in FS 100 tend to have slightly better grade point averages and are more likely to remain enrolled in the university through the first two years.

Faculty members who work with students in the summer orientation and teach FS 100 have been selected because they have a special interest in and a record of effectiveness in working with first-year students.

Student orientation leaders become the student associates who assist faculty teaching Freshman Seminar and provide a perspective from experienced and successful students. The faculty/student associate team works with students in small classes, guiding them through a curriculum that covers such varied topics as the meaning of education, the role of general education, time management, multicultural enrichment, student life, and others.

Many first-year students are uncertain about what future career best suits their abilities and interests. A second course, FS 101, Career Education Class, is offered to assist these students, as well as students of higher class standing, who need assistance in developing career goals.

FS 100 Freshman Seminar. An elective course, meeting one hour per week, that deals with such topics as intellectual development, campus services, study skills, time management, course selection, academic requirements, objectives of higher education, multicultural enrichment, and the general purposes of college. There are several sections taught by various faculty members. Enrollment in each section limited to 20 students. Grading is on a credit/no credit basis. One credit. Offered fall semester only.

FS 101 Career Education Class. Designed for students seeking assistance in developing a career and educational plan suited to their needs, goals, and career choices. Emphasis and activities will be placed on personal and career assessment, career and occupational information, planning, and decision making.

Geography and Planning Program (GPY)

Chair: Poitras. Associate Professor: Cole, Poitras; Assistant Professor: Lioubimtseva; Instructor: Gasahl.

This program includes the geography major and minor and the city and regional planning minor.

Geography is one of the most ancient fields of study—and one of the most up to date as well. From the beginning of civilization, people wondered about the lands and people around them, and our curiosity is just as strong today. Geography satisfies that curiosity, because it is the study of the physical earth (mountains and rivers, weather and climate, plants and animals) and the earth as the home of people (agriculture and industry, politics and religion, city blocks and entire countries). Geography, then, is a bridge between the natural sciences and the social sciences. Our methods are as old as the earliest maps and as new as the latest computer technologies.

The geography program gives students the opportunity to develop an understanding of geographic principles, regions, and practices. Geography students will study where things are located and why things are located where they are, particularly with respect to the relationship between people and the environment. Career opportunities in geography are extensive, including teaching, urban planning, cartography, geographic information systems, community development, resource management, and environmental studies.

Degrees offered: B.S., B.A. in Geography; minor in Geography, minor in City and Regional Planning. Teaching certification in both Geography major (secondary) and Geography minor (elementary and secondary). Major with elementary and secondary education also offered in Social Studies, Geography emphasis.

Geography Major

The geography program is organized into three parts: Concepts and Principles of Geography, Regional Studies, and Geographic Methods. The Concepts and Principles include introductory courses in Cultural and Physical Geography. In Regional Studies the geographer's spatial and temporal lens is used to understand specific areas of the world. Geographic Methods involve such technical areas as cartography and computer mapping, remote sensing and the interpretation of aerial photographs, city and regional planning, and geographic information systems.

Geography Minor

Students minoring in geography are required to complete at least 22 hours of coursework. All students must select one of two tracks to follow in the minor: the teacher certification track, or the technical track. These tracks are detailed below.

Requirements for a Geography Major

Students majoring in geography are required to complete 36 unduplicated hours, including these core courses: GPY 100, GPY 220, GPY 400, and GPY 495. The other courses come from the four areas of concentration. No more than six credit hours of 399 and 499 combined may count toward the major.

Students may earn either a B.A. or B.S. degree. The B.A. degree requires third semester proficiency in a foreign language. The B.S. degree cognate sequence requirements are STA 215, SS 300, and GPY 420.

Geography and Planning

The following are the course requirements for each concentration:

Regional Studies Concentration

Total credits for the regional studies concentration is 36, as indicated below. It is anticipated that students interested in teaching geography at the secondary or elementary levels will concentrate in Regional Studies.

1. The Core: 13 credits (GPY 100, 220, 400, and 495).
2. Regional Studies: 12 credits minimum (GPY 235 plus nine additional credits from any of the following: GPY 345, 350, 351, 352, 353, 354, 355, 356; ANT 215; SS 324).
3. Geographic Methods: 11 credits minimum (GPY 307 and NRM 350 plus three additional credits from any of the following: GPY 309, 420; NRM 250).

Geographic Methods Concentration

Total credits for the geographic methods concentration is 36, as indicated below.

1. The Core: 13 credits (GPY 100, 220, 400, and 495).
2. Regional Studies: nine credits minimum (GPY 235 plus six additional credits from any of the following: GPY 345, 350, 351, 352, 353, 354, 355, 356; ANT 215; SS 324).
3. Geographic Methods: 14 credits minimum (combination of GPY 307, 309, 420; NRM 250, 350).

City and Regional Planning Concentration

Total credits for the city and regional planning concentration is 39, as indicated below. In addition to the Core, SS 324, Urbanization, is a prerequisite for this concentration.

1. The Core: 13 credits (GPY 100, 220, 400, and 495).
2. Regional Studies: three credits (GPY 235).
3. Geographic Methods: 11 credits (GPY 307, NRM 350, and GPY 420).
4. City and Regional Planning: nine credits minimum (SS 324 plus six additional credits from any of the following: GPY 307, 309, 420; SOC 351; PLS 203).
5. Internship: three credits (GPY 490).

Community and Organizational Leadership Concentration

Total credits for the community and organizational leadership concentration is 38, as indicated below.

1. The Core: 13 credits (GPY 100, 220, 400, and 495).
2. Regional Studies: six credits (GPY 235 plus three additional credits from any of the following: GPY 345, 350, 351, 352, 353, 354, 355, 356; ANT 215, SS 324).
3. Geographic Methods: 7 credits minimum (GPY 307 plus 3 additional credits from the following: GPY 309, 420; NRM 250, 350).
4. Community and Organizational Leadership: nine credits (GPY 309, 420; SS 324; SOC 351, SOC 356).
5. Internship: three credits (GPY 490).

Teacher Certification Track (22 hours)

Students seeking certification to teach geography at the secondary level are required to complete the following courses:

1. Two core courses: GPY 100 Physical Geography and GPY 220 Cultural Geography.

Geography and Planning

2. Four regional studies courses (one must be GPY 235): GPY 235 World Regional Geography, GPY 345 Geography of Michigan/Great Lakes Region, GPY 350 Geography of Russia and Its Neighbors, GPY 351 Geography of Africa, or GPY 352 Geography of Latin America, GPY 353 Geography of Canada and the United States, GPY 345 Geography of Asia, or GPY 355 Geography of Southwest Asia (Middle East) or GPY 356 Geography of Europe. Among their regional courses teachers should include GPY 345, Geography of Michigan/Great Lakes Region, and GPY 353, Geography of Canada and the United States.
3. One methods course from the following: GPY 307 Introduction to Computer Mapping/Geographic Information Systems, GPY 309 Introduction to City and Regional Planning, NRM 250 Resource Measurement and Maps, or NRM 350 Aerial Photography and Remote Sensing.

Technical Track (24 hours)

Students following the technical track are required to complete the following courses:

1. Two core courses: GPY 100 Physical Geography and GPY 220 Cultural Geography.
2. GPY 235 World Regional Geography (required).
3. Four methods courses from the following: GPY 307 Introduction to Computer Mapping/Geographic Information Systems, GPY 309 Introduction to City and Regional Planning, NRM 250 Resource Measurement and Maps, NRM 350 Aerial Photography and Remote Sensing, SS 324 Urbanization.

Minor in City and Regional Planning

Coordinator: Gasahl.

A minor in planning offers students an opportunity to prepare for careers in the profession of urban and regional planning. See City and Regional Planning.

Courses of Instruction

GPY 100 Physical Geography. Explores the spatial patterns between landforms, natural systems of flora and fauna, and climate. Designed to increase awareness of the physical environment, its landscape, controls, and processes, and the interrelationships of natural phenomena. Three credits. Offered fall semester.

GPY 200 Computer Cartography. Cartography is a major tool that geographers and others use to represent the world. This hands-on course provides an introduction to the art and science of cartography and computers. Students will acquire skills in up-to-date computer cartography and computer graphics design. Three credits. Offered fall semester on even numbered years.

GPY 220 Cultural Geography. The distinctive spatial patterns of culture around the world will be investigated. Examines the distributions of population, language, religion, race, agriculture, industry, urbanization, and development and how these distributions change over time. Fulfills Social Sciences Foundation. Three credits. Offered every semester.

GPY 235 World Regional Geography. A survey of geography followed by an examination of specific geographic concepts. Physical, cultural, economic, and related factors will be given more emphasis than place-name geography. Fulfills Social Sciences Foundation. Fulfills World Perspectives requirement. Three credits. Offered every semester.

GPY 307 Introduction to Computer Mapping/Geographic Information Systems. Basic hands-on approach to computer mapping and geographic information systems. Class work focuses on natural and social science examples of mapping and geographic information systems. No knowledge of computers is required. Prerequisite: Sophomore standing or approval of instructor. Four credits. Offered fall semester.

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GPY 309 Introduction to City and Regional Planning. An introductory course for people interested in careers in planning and public administration. Explores the relationship between the goals of a community and the techniques needed to implement them. Three credits. Offered fall semester.

GPY 310 Land Use Planning. Provides students with a practical understanding of how land development and land preservation are affected and controlled by public- and private-sector entities in the United States. Prerequisite: GPY 309. Three credits. Offered winter semester in odd-numbered years.

GPY 320 Introduction to Digital Image Processing. Provides theory and applications of digital image processing techniques to remotely sensed imagery. Specifically, this course will focus on the methodologies developed to assist in the thematic extraction of environmental information using computer-based image processing system (Er Mapper). Prerequisite: GPY 307 and NRM 350 (or corequisite) or permission of instructor. Three credits. Offered every other year, winter.

GPY 335 Geographic Patterns-Global Development. Development involves positive and negative social, political, economic, cultural, and environmental changes for people living in a region or a country. GPY 335 explores the complex geography of the processes associated with development and in particular global development. Prerequisite: GPY 235 or approval of instructor. Part of Global Change Theme. Three credits. Offered winter semester.

GPY 345 Geography of Michigan/Great Lakes Region. A study of the physical and cultural features of the Great Lakes region with emphasis on Michigan. Lecture and discussion. Three credits. Offered summer semester.

GPY 350 Geography of Russia and Its Neighbors. With all the exciting and dynamic changes that are occurring in this region, an analysis of the physical and cultural aspects of Russia and its neighbors will be examined. Cross-listed with RST 350. Three credits. Offered winter semester of even-numbered years.

GPY 351 Geography of Africa. Introduces students to a geographical and historical understanding of Africa. Focus will be on continent-level as well as regional and local-level phenomena. The political, economic, social, and environmental contexts associated with African cultures will be investigated. Three credits. Offered winter semester of odd-numbered years.

GPY 352 Geography of Latin America. The growth and development of Latin America has a significant impact on most activities in North America. Examines those effects and studies the cultural and physical development of Latin America. Three credits. Offered fall semester of even-numbered years.

GPY 353 Geography of Canada and the United States. A study of the physical and cultural environment north of the Rio Grande. Followed by a spatial analysis of the area's population, resources, and economy. Three credits. Offered fall semester.

GPY 354 Geography of Asia. Introduction to the physical and cultural geography of Asia: The Indian subcontinent, China, the Koreas, Japan, Taiwan, and Southeast Asia. Prerequisite: 235 or consent of instructor. Three credits. Offered fall semester of even-numbered years.

GPY 355 Geography of Southwest Asia (The Middle East). Introduction to physical and cultural geography of Southwest Asia and North Africa. Prerequisite: 235 or consent of instructor. Three credits. Offered winter semester of even-numbered years.

GPY 356 Geography of Europe. The world has been strongly influenced by European geographic principles and practices. Course will focus on the physical and cultural geographic development of Europe, including a spatial analysis of the area's population, resources, and economy. Three credits. Offered winter semester of odd-numbered years.

GPY 380 Special Topics in Geography. Provides an interdisciplinary opportunity for students to pursue advanced study in special topics related to geography. Topics vary each term. May be taken more than once when the topic is different. Three credits.

GPY 399 Independent Readings. Independent supervised readings in selected topics. Prerequisite: Permission of program coordinator. One to three credits. Offered on a credit/no credit basis. Offered each semester.

GPY 400 Geographic Inquiry. An introduction to diverse threads of geographic theory and practice, from ancient Egypt and Mesopotamia to the present day. Prerequisites: 220 and GEO 111. Three credits. Offered fall semester of odd-numbered years.

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GPY 407 Advanced GIS. Concepts, principles, and techniques of advanced GIS using ARC/INFO. Course is both theoretical and practical, addressing the structure of GIS and its use for spatial analysis and data management. Prerequisite: 307. Four credits. Offered winter semester.

GPY 420 Sociology of Community. Provides students with an understanding of the concept of “community.” Combines theory and practice. Students will work together as a team to examine, analyze, experience, and improve community life. GPY 420 is equivalent to SOC 420. Students may not receive credit for both courses. Prerequisites: GPY 220, STA 215, and SS 300. Three credits. Offered winter semester of even-numbered years.

GPY 490 Internship. Supervised work experience in an area related to geography. Prerequisite: Permission of program coordinator. One to nine credits. Offered on a credit/no credit basis. Offered every semester.

GPY 495 Senior Seminar in Social Sciences (Capstone). Considers the contemporary debates in the social sciences. By active reading and discussion of these debates, students write a personal assessment of their work to date and present a senior paper. GPY 495 is equivalent to SOC 495. Students may not receive credit for both courses. Prerequisite: Senior standing in the department. Three credits. Offered fall and winter semester.

GPY 499 Independent Research. Research conducted individually with faculty supervision. Attention given to written and oral presentation of research findings. Prerequisite: Permission of program coordinator. One to three credits. Offered on a credit/no credit basis. Offered every semester.

SS 324 Urbanization. Examines the process of urbanization and its impact on various cultures. Considers the dynamic growth of urbanization in third world countries and the significant increase in global urbanization, emphasizing the evolution of cities over time, space, and vastly different social, political, and cultural environments. Fulfills World Perspective requirement. Part of Cities Theme. General education course CGE/B. Three credits. Offered winter semester.

Geology (GEO)

Chair: Neal. Professors: Neal, TenBrink, Videtich; Associate Professors: Cole, Weber; Assistant Professors: Edwards, Hessler, Mattox, Mekik, Riemersma.

Geology is the study of the earth—its composition, processes, and history. The great outdoors is the laboratory of geology, where one may study landforms, rock and mineral deposits, folds, faults, fossils, and the processes that have shaped the earth and that affect its inhabitants. A relatively young science, geology is still on the threshold of new discovery as geoscientists explore the last frontiers of the continents and oceans and push on to study planetary geology.

Degrees offered: B.S. in geology; B.S. in geology-chemistry; B.S. in earth science; minor in geology and earth science. Teaching certification (secondary) in earth science major and minor. Major with elementary teaching certification offered in group science, geology emphasis. The B.S. in geology and dual geology-chemistry are intended primarily to prepare students for graduate study in the geological sciences. As terminal degrees, they are also useful in a variety of careers, including environmental technology, mineral and energy resource exploration, science writing, and business.

The B.S. degree in earth science prepares students to teach in the secondary grades. Michigan teacher certification requires completion of the School of Education professional program and a minor area of study. Similarly, the B.S. degree in the group science major with a geology emphasis is designed for students seeking certification to teach at the elementary school level.

The minor program in geology is designed to provide a supportive second discipline for students in such majors as anthropology, other science areas, and

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business. The earth science minor is for students seeking certification as secondary school teachers.

Career Opportunities

The geosciences offer challenging career opportunities and are among the higher paid professions. The need for geoscientists reflects the shortages of fossil fuels, metals, industrial minerals, and adequate fresh water supplies. Some of these resources are not renewable, so the demand for geologists, geophysicists, and geochemists is likely to continue. Geoscientists will apply their knowledge and skills to exploring and developing the earth's resources. The search will cover the continents and extend into the seas as marine geologists and oceanographers search the limits of our planet. At the same time, engineering geologists, geohydrologists, and environmental geologists will seek solutions to problems involving building sites, water supply, waste disposal, and other environmental impacts of people's activities. Thus, new cross-disciplinary and interdisciplinary needs for geoscientists may be expected both in industry and in the areas of federal and state geological surveys.

Earth science teachers will continue to participate in education programs to increase the nation's awareness of the capabilities and limitations of the physical environment. Such primary and secondary school programs will need people familiar with the workings of the earth's atmosphere, oceans, and continents.

Major Requirements: Geology

Completion of a B.S. in geology requires the following:

1. General education requirements as identified in the General Academic Regulations section of the catalog.
2. 42–49 semester hours of geology courses with a minimum GPA of C (2.0):
 - GEO 111 Exploring the Earth (4)
 - GEO 112 Earth History (5)*
 - GEO 211 Mineralogy (4)
 - GEO 212 Petrology (5)*
 - GEO 311 Structural Geology (3)
 - GEO 312 Sedimentation-Stratigraphy (4)
 - GEO 320 Geomorphology (4)
 - GEO 485 Geology Seminar (2)
 - GEO 495 Global Tectonics (3)**
 - GEO electives—two courses at the 300 or 400 level (6–8)
 - An approved Summer Field Camp in geology (taught by another college) (5–8).
3. 32–35 semester hours of cognate science courses in chemistry, physics, and mathematics/computer science as outlined below:
 - a. Two chemistry courses:
 - CHM 115 Principles of Chemistry I (5)
 - CHM 116 Principles of Chemistry II (5)
 - b. Two physics courses (one of the following pairs):
 - PHY 220 General Physics I (5)
 - PHY 221 General Physics II (5)

*Completion of GEO 112, 212, and MTH 123 satisfies the general education B.S. degree cognate for geology majors.

**Capstone course.

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- or
 PHY 230 Principles of Physics I (5)
 PHY 231 Principles of Physics II (5)
- c. Two basic mathematics courses:
 MTH 122 College Algebra (3)
 MTH 123 Trigonometry (3)*
- d. Two additional mathematics or computer science courses (one of the following pairs)
 MTH 201 Calculus and Analytic Geometry I (5)
 MTH 202 Calculus and Analytic Geometry II (4)
 or
 STA 215 Statistics I (3)
 STA 216 Statistics II (3)
 or
 CS 150 Introduction to Computing (3)
 CS 162 Computer Science I (4)

Sample Curriculum for B.S. in Geology

First Year

Fall Semester		Winter Semester	
CHM 115 Principles of Chemistry I	5	CHM 116 Principles of Chemistry II	5
GEO 111 Exploring the Earth	4	GEO 112 Earth History	5
WRT 150 Strategies in Writing	3	General education courses	6
General education course	3		<u>16</u>
	<u>15</u>		

Second Year

Fall Semester		Winter Semester	
GEO 211 Mineralogy	4	GEO 212 Petrology	5
MTH 122 College Algebra	3	MTH 123 Trigonometry	3
General education courses	6	General education courses	6
Geology elective	3		<u>14</u>
	<u>16</u>		

Third Year

Fall Semester		Winter Semester	
GEO 311 Structural Geology	3	GEO 312 Sedimentation—Stratigraphy	4
GEO 320 Geomorphology	4	MTH 202 Calculus and Analytical Geometry II	4
MTH 201 Calculus and Analytical Geometry I	5	PHY 230 Principles of Physics I	5
General education course	3	General education course	3
	<u>15</u>		<u>16</u>
Summer Field Course	5–8		

Fourth Year

Fall Semester		Winter Semester	
PHY 231 Principles of Physics II	5	GEO 495 Global Tectonics	3
Geology elective	3–5	GEO 485 Geology Seminar	1
General education course	3	General education course	3
GEO 485 Geology Seminar	1	Geology elective	3
	<u>12–14</u>	Electives	6
			<u>16</u>

Geology

Major Requirements: Dual Geology-Chemistry

Completion of a major in dual geology-chemistry requires the following:

1. General university degree requirements as identified in the general Academic Regulations section of the catalog.
2. Thirty (30) semester credit hours of geology courses with a minimum GPA of C (2.0).
 - GEO 111 Exploring the Earth
 - GEO 112 Earth History
 - GEO 211 Mineralogy
 - GEO 212 Petrology
 - GEO 311 Structural Geology
 - GEO 312 Sedimentation-Stratigraphy
 - GEO 445 Introduction to Geochemistry*
 - GEO 485 Geology Seminar (one credit hour)
3. Twenty-one (21) semester credit hours of chemistry courses with a minimum GPA of C (2.0).
 - CHM 115 Principles of Chemistry I
 - CHM 116 Principles of Chemistry II*
 - CHM 222 Quantitative Analysis
 - CHM 352 Applied Physical Chemistry
 - CHM 421 Instrumental Methods of Analysis
 - CHM 422 Instrumental Methods Laboratory
 - CHM 491 Chemistry Seminar II (1 credit hour)
4. Five (5) semester credit hours of mathematics.
 - MTH 201 Calculus and Analytic Geometry I*
5. A three-credit hour capstone course.
 - GEO 495 Global Tectonics**
 - or
 - CHM 351 Introduction to Physical Chemistry

Major Requirements: Earth Science

Michigan teacher certification requires completion of the School of Education professional program and a minor area of study. A minimum of 2.8 GPA in the major is required for recommendation for teacher certification.

Completion of a major in earth science requires the following:

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. 19–22 semester credit hours of geology courses with a minimum GPA of 2.0.
 - GEO 111 Exploring the Earth
 - GEO 112 Earth History
 - GEO 319 Earth Science in Secondary Education
 - GEO 320 Geomorphology†
 - GEO 430 Oceanography
 - GEO 485 Geology Seminar (two credits)

*Completion of CHM 116, GEO 445, and MTH 201 satisfies the general education B.S. degree requirements for dual majors.

**Capstone course

†Capstone course for earth science majors.

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3. 32–33 semester credit hours of science cognate courses with a minimum GPA of C (2.0).

CHM 115 Principles of Chemistry I

PHY 105 Descriptive Astronomy

PHY 220 General Physics I

PHY 221 General Physics II

MTH 122 College Algebra

NRM 140 The Climatic Factor

or

NRM 281 Principles of Soil Science

One biology or life science course.

4. Twelve semester credit hours of general education B.S. degree cognate courses with a minimum GPA of C (2.0).

GEO 211 Mineralogy

GEO 212 Petrology

MTH 123 Trigonometry

Minor Requirements: Geology

Completion of a minor in geology requires the following:

GEO 111 Exploring the Earth

GEO 112 Earth History

GEO 211 Mineralogy

GEO 212 Petrology

GEO 311 Structural Geology

GEO Elective (one course at the 300 or 400 level)

Participation in GEO 485 (Geology Seminar) is encouraged but not required.

Minor Requirements: Earth Science

Completion of a minor in earth science requires the following: 24 semester credit hours of approved geology courses with at least one course from the 300 or 400 level. One course in astronomy/climatology or soils science may be substituted for one of the required geology courses.

Group Science Major with a Geology Emphasis for the B.S. Degree

The group science major with a geology emphasis is designed for students seeking certification to teach at the elementary level. It provides students with breadth of exposure in all the sciences and a concentration in geology. In order to be certified, students must complete this major and the elementary teaching minor. The following requirements must be completed for the major:

1. One course chosen from BIO 103, 105, or 107, CHM 102, PHY 105 or 106.
2. PHY 201 or 204.
3. CHM 109* or 115* or 201*, and CHM 219.
4. GEO 111 or 201.
5. BIO 111 and 112.
6. GEO 320 (Capstone).
7. Electives: Eight semester credits of approved geology courses.

*Satisfies B.S. degree cognates (along with MTH 221 and 222); B.A. students must take the listed courses and satisfy the foreign language requirement.

Geology

Courses of Instruction

GEO 100 Environmental Geology. The relationship between people and their physical geological environment. Topics include geologic hazards, hydrology and human health, mineral and energy resources, and land use planning. Primarily for nonscience majors; not for geology or earth science majors. Lectures and field trips. Fulfills Physical Sciences Foundation. (3-0-0). Three credits. Offered each semester and in summer.

GEO 105 Living with the Great Lakes. Introduction to earth science using the Great Lakes as a theme and Lake Michigan as a natural laboratory. Review of the Lakes' geologic setting, origin, and history; climatology and lake levels; physical processes including erosion; water chemistry as a function of geology; human interactions with the Lakes. Lectures and field trips. Fulfills Physical Sciences Foundation. (3-0-0). Three credits. Offered in fall semester and in summer.

GEO 111 Exploring the Earth. Introduction to the study of earth materials and processes, including minerals, rocks, mineral deposits, weathering, erosion, volcanism, and mountain building. Lectures, laboratories, and field trips. Fulfills Physical Sciences Foundation. (3-0-2). Four credits. Offered each semester and in summer.

GEO 112 Earth History. Introduction to geological structures, stratigraphic relations, and fossils as instruments for studying the physical and biological events of earth history. Lecture, laboratories, and field trips. Prerequisite: A course in physical or general geology. (3-1-2). Five credits. Offered fall and winter semesters.

GEO 180 Selected Topics in the Geological Sciences. Topics covered will reflect special interests of students and the instructor. Prerequisite: Variable depending on topic. One to four credits. Offered on sufficient demand.

GEO 201 Earth Science in Elementary Education. A study of those aspects of earth science that are readily observable in our natural environment. Topics covered include the earth in space and the earth's atmosphere, lithosphere, and hydrosphere. Hands-on investigation of the natural world is emphasized. Recommended for prospective elementary teachers. Does not count toward a geology major. (3-0-2). Four credits. Offered fall semester.

GEO 210 Rocks and Minerals. Hand specimen study of common rocks, minerals, and fossils. Especially suitable for teacher candidates. Does not count toward the geology major. Lectures, laboratory, and field trips (one full Saturday, one Saturday morning, and three class-time trips are required). (3-0-2). Four credits. Offered summer semester.

GEO 211 Mineralogy. The study of mineral growth, structure and occurrence. The determination of minerals by their physical, chemical, and crystallographic properties. Lectures and laboratory. Prerequisites: 111 and Chemistry 115. (3-1-2). Four credits. Offered fall semester.

GEO 212 Petrology. Topics include the origin, nature, occurrence, and identification of rocks. Lectures and laboratory. Prerequisites: 111, 112, 211, and Chemistry 115. (3-1-2). Five credits. Offered winter semester.

GEO 280 Selected Topics in the Geological Sciences. Topics covered will reflect special interests of students and the instructor. Prerequisite: Variable depending on topic. One to four credits. Offered on sufficient demand.

HP 241 The Earth, A Global View. Course has two objectives: (1) understanding Earth as one global, holistic, delicately balanced dynamic system; and (2) understanding the critical interdependence between humans and Earth systems. Required field trip. NS/A with laboratory. (3-0-3). Four credits. Offered fall semester. See Honors Program.

GEO 285 Regional Field Geology. One- to two-week trips to New England, Appalachian, Ozark-Ouachita, or Lake Superior regions to study regional aspects of lithology, stratigraphy, structure, fossils, landforms, and geological history. Pre-trip report required. Prerequisite: 111 and permission of instructor. One or two credits. Offered on sufficient demand.

GEO 300 Geology and the Environment. Detailed examination of interactions and connections between people and their geologic environment from an Earth Systems perspective. Using case studies and current events, students investigate complex environmental processes and issues related to the lithosphere, hydrosphere, atmosphere, and biosphere. Students will reach and defend decisions concerning personal, corporate, and governmental actions. Part of the Earth and Environment theme; not included in the Geology/Earth Science major. Prerequisites: Junior standing and completion of natural science (3-0-0). Three credits. Offered winter semester.

Geology

GEO 310 Plate Tectonics. An upper-level course that explores the fundamental science behind plate tectonics, geology's major paradigm. Investigates the evolution and development of the thoughts and technology that led to this relatively new (1960s) breakthrough, how plate tectonics is tested, and the predictions that it makes. Part of the Changing Ideas: Changing World theme; not part of the Geology/Earth Science major. Prerequisite: Completion of physical or life science foundations General Education requirement. (3-0-0). Three credits.

GEO 311 Structural Geology. Elementary treatment of stress and strain, theory of rock failure: description and origin of rock structures and selected techniques of structural analysis. Lectures, laboratory, and three-day field exercise. Prerequisites: 212 and Math 123. (2-0-2). Three credits. Offered fall semester.

GEO 312 Sedimentation-Stratigraphy. Principles and processes of sedimentation. Petrologic interpretation and basic laboratory techniques in the analysis of sediments. Study of layered rocks in terms of description of the local section; correlation of sections using petrology and paleontology and reconstruction of paleoenvironments. Lectures, laboratory, and field trips. Prerequisite: 112. (3-1-2). Four credits. Offered winter semester.

GEO 315 Geological Field Methods. Principles and applications of surveying and geophysical instruments in geological field work. Practical field exercises in making planimetric and topographic base maps are required. Laboratory. Prerequisites: 112 and permission of instructor. (1-0-3). Two credits. Offered fall semester of even-numbered years.

GEO 319 Earth Science in Secondary Education. Designed to expand the perspectives of the teaching of earth science and prepare the student for professional life. Emphasis is on teaching techniques, lecture demonstrations, laboratory activities, utilizing web resources, and professional standards. Topics include plate tectonics, landforms, earth materials, geologic time, hydrosphere, weather and astronomy. Prerequisites: Earth Science major or minor, teacher certification candidate, and 18 credits of Earth Science. (3-0-2). Four credits. Offered winter semester.

GEO 320 Geomorphology (Earth Science Capstone). The patterns and genesis of landforms with emphasis on fluvial processes, climatic factors, and environmental implications. Independent study project or research paper required. Lectures, laboratory, and field trips. Geology majors are required to take the course in the fall semester. Earth Science and Group Science students are required to take the course in the winter semester. Prerequisite: 112. (3-1-2). Four credits. Offered fall semester; winter semester of even-numbered years.

GEO 350 Geology's Great Debate in the New World. Geology's great debate, whether Earth was shaped by slow, uniform processes (uniformitarianism) or rapid, catastrophic events (catastrophism), is explored in the context of the history of the science of geology and the development of the New World by examining selected topics related to major geologic events in the Western Hemisphere. Part of the Revolution and Evolution in the Americas theme; not part of the Geology/Earth Science major. Prerequisite: Completion of physical or life science General Education requirement. (3-0-0). Three credits. Offered fall semester.

GEO 380 Selected Topics in the Geological Sciences. Topics covered will reflect special interests of students and the instructor. Prerequisite: Variable depending on topic. One to four credits. Offered on sufficient demand.

GEO 399 Readings in Geology. Independent study of geological literature. Topics to be prearranged with appropriate staff members. Discussion and seminar. Term paper required. One to four credits. Must be prearranged with supervising faculty.

GEO 415 Invertebrate Paleontology. A study of the invertebrate fossil record, including a systematic review of important phyla, types of fossilization, and specimen description. Lectures and laboratory. Prerequisites: 112; 312 strongly recommended. (2-1-2). Three credits. Offered winter semester of odd-numbered years.

GEO 420 Glacial and Quaternary Geology. A study of the physical characteristics of glaciers, their deposits, and their history. Lectures, laboratory, and field trips. Prerequisites: 112; 312 strongly recommended. (3-1-2). Four credits. Offered winter semester of odd-numbered years.

GEO 430 Oceanography. Principles and processes of a physical nature such as waves, tides, currents, and submarine volcanic and seismic action. Lectures and cruise on Lake Michigan. Prerequisite: 112. (3-0-0). Three credits. Offered fall semester of odd-numbered years.

GEO 440 Geohydrology. A study of the geologic principles that govern the occurrence, movement, and quality of groundwater. Lectures, laboratory, and field trip. Prerequisites:

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112; 312 and Math 201 strongly recommended. (3-0-0). Three credits. Offered winter semester of even-numbered years.

GEO 445 Introduction to Geochemistry. Topics include crystal chemistry (nuclear/solid-state chemistry), water geochemistry (kinetics) and mineral stability (thermodynamics). Lectures and laboratory. Prerequisites: 112; MTH 120 and CHM 116 (may be taken concurrently); MTH 201 strongly recommended. (3-0-2). Four credits. Offered fall semester of even-numbered years.

GEO 450 Optical Mineralogy. The determination of minerals by their optical properties in crushed fragments and rock thin sections using the petrographic microscope. Lecture and laboratory. Prerequisite: 212. (2-0-3). Three credits. Offered on demand.

GEO 470 Geophysics. Concepts of earth physics are introduced. The principles of physics are applied to explore the subsurface. Modern geophysical methods, including gravity, magnetism, seismics, magnetotellurics, radar, electrical, well-logging, and remote sensing are discussed in lecture and applied in laboratory experiments and field measurements. Prerequisites: 212; MTH 201 or permission of instructor; PHY 220 or 230 recommended. (3-0-3). Four credits. Offered fall semester of odd-numbered years.

GEO 480 Selected Topics in the Geological Sciences. Topics covered will reflect special interests of students and the instructor. Prerequisite: Variable depending on topic. One to four credits. Offered on sufficient demand.

GEO 485 Geology Seminar. Student investigations of geologic literature and problems, including spring and/or fall departmental field trips. Required of geology and earth science majors. Seminar and discussion. Prerequisite: Geology or earth science major or minor. (0-1-0). One credit. Offered fall and winter semesters.

GEO 490 Geology Internship. Practical and applied geology carried out as independent study in specialized areas of geology or earth science. Work will be carried out under the supervision of a faculty advisor and/or a supervisor at the institution where the work is done. Course structure must be arranged with faculty supervisor before registration. (490 may be substituted on approval for the field camp requirement of the major.) Prerequisites: Major in geology or earth science, GEO 112 and permission of supervisor. One to ten credits. Offered on request.

GEO 495 Global Tectonics (Geology Capstone). Principles and processes of continental drift, sea-floor spreading, and plate tectonics, including paleomagnetic, geodetic, sedimentologic, paleontologic, seismic, petrologic, and structural approaches to the study of moving plates of lithosphere. The relationships between plate tectonics and the evolution of selected fold mountain systems as the Appalachians, Alps, Himalayas, and Cordilleran fold chains. Prerequisite: 311. (3-0-0). Three credits. Offered winter semester.

GEO 499 Independent Study or Research in Geology. Supervised experiments, discussions, and report writing. Topics and hours by arrangement. Recommended for geology and earth science majors. Prerequisite: Permission of supervisor. One to four credits. Offered fall, winter, and summer semesters.

NRM 540 Weather and Climate. For certified teachers who wish to investigate the underlying causes of changes in weather and climate. Concepts include composition and physical behavior of the atmosphere, patterns, measurement, the water cycle, severe weather, and changes over time. Tools include direct observation, instruments, maps, graphs, computers, and satellite images. Prerequisites: teacher certification. (2-0-3). Three credits. Offered fall semester of odd-numbered years.

GEO 602 Earth Science by Inquiry. Focuses on the development of fundamental concepts, reasoning and critical thinking skills through inquiry-based instruction and laboratory experience, using materials based on research in earth science education. Introduces teachers to inquiry-based instruction by immersing them in it as students. Topics include plate tectonics, earth materials, geologic time, hydrosphere, and landscapes. Prerequisites: teacher certification. (2-1-3). Four credits. Offered fall semester of even-numbered years.

Greek

See the Classics section of this catalog.

School of Health Professions (SHP)

Director: Toot. Professor: Peck, Toot, Van Fleet; Associate Professors: Bacon-Baguley, Marks, Stevenson, Ward; Assistant Professors: Alderink, Allaben, Baker, Beck, Boeve, Grapczynski, G. Green, M. Green, Hoogenboom, Hooper, Ozga, Passmore, Pinson, Sisco, Taylor, Vaughn; Visiting Faculty: Harro.

The School of Health Professions houses five programs. Three programs—occupational therapy, physical therapy, and physician assistant studies—offer the master’s degree. Two programs—occupational safety and health and therapeutic recreation—offer the baccalaureate degree.

The School of Health Professions strives to be a model of excellence in health care education in the twenty-first century. The mission of the school is to prepare reflective professionals with the foundation necessary to serve and guide health care.

Philosophy

The School of Health Professions as an academic unit of Grand Valley State University supports the university’s goals of education, research, and public service. The curricula provide educational experiences that encourage intellectual achievement and the development of critical and self expression while maintaining emphasis on the importance of human values and cultures. The school initiates and maintains relationships with the West Michigan community to share resources and knowledge in approaches to health care. The faculty role is to educate clinical health professionals who will be involved in the diagnosis and treatment of a comprehensive scope of actual or potential health problems.

In response to the changing needs of society, the School of Health Professions faculty subscribes to the following beliefs about humanity, environment, well-being, and clinical professional education.

Humanity

The faculty believe in the innate worth and dignity of individuals. Individuals have a uniqueness that is the result of a dynamic interaction with the environment and is integrated physiologically, psychologically, socially, culturally, and spiritually. The family and community are primary social systems essential for the fulfillment of basic needs and personal goals. Social systems provide the framework for human interaction by defining relationships and establishing rules for behavior and modes of action.

Environment

Life occurs in the context of dynamic interactions with the environment. Individual direction and development are determined by the environment, which develops through circumstances and choice. Environmental factors are evaluated according to the emotional and intellectual balance within the individual.

Well-being

Well-being is the individual’s understanding of his or her ability to meet needs within the standards of human capacity. Human capacity is defined within the contexts of life stages and cultural and social roles and is qualified by heredity, behavioral choices, disease, and the environment.

Clinical Professional Education

Clinical professional education is based on the belief that learning is an individualized, lifelong process. The aim of clinical professional education is to facilitate

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the acquisition of knowledge, attitudes, values, and skills and the development of independence, critical thinking, creativity, and leadership, all of which are necessary in the practice of clinical health professionals.

Professional Conduct

Health care professionals accept responsibility for management of care and exhibit a high degree of accountability as they provide care to individuals, families, groups, and communities in a variety of settings. Behavior patterns of all health care professionals grow from an innate belief by each individual in the respect due to every human being. The School believes that there are abilities that are attributes, characteristics, or behaviors that are not explicitly part of the profession's core of knowledge and technical skills but are necessary for success in the profession. These ten abilities have been identified as (1) commitment to learning, (2) interpersonal skills, (3) communication skills, (4) effective use of time and resources, (5) use of constructive feedback, (6) problem-solving, (7) professionalism, (8) responsibility, (9) critical thinking, and (10) stress management. Descriptors can be found on the School of Health Professions Web page. The role of health care professionals includes the components of health care delivery and management, collaboration, leadership, teaching, research utilization, evaluation, and advancement of the profession.

Health care professionals uphold certain obligations that include (1) the obligation to maintain a professional demeanor whenever they may be considered a representative of their profession, (2) the obligation to know and accept a professional "Code of Ethics," and (3) the obligation to maintain an attitude of compassion and "welfare of the patient first."

In interactions with peers, staff, patients, and public audiences, students are expected to demonstrate consistent, courteous behavior.

Academic Requirements

Because the School of Health Professions prepares students to practice in a variety of Health Professions, we assume the responsibility of ensuring the public that our students have met high standards of professional behavior, academic achievement, and consistent evidence of response to consumer needs.

We Require that students attain a minimum of 80 percent competency in each learning module. These modules are defined by faculty and are reflected in each course syllabus across the professional curricula.

Program Information

Specific information on admission, curriculum, and graduation requirements can be found in each program section.

Courses of Instruction

The School of Health Professions has identified the following courses as interdisciplinary.

SHP 220 Health Care Delivery. An introduction to health care delivery systems in the United States and elsewhere today. An exploration of trends, experiments, problems, and solutions. Two credits. Offered fall and winter semesters.

SHP 340 Health Care Management. An introduction to the basic concepts of health care management, including problem solving, planning, organization, motivation, leadership, and group process. Two credits. Offered fall and winter semesters.

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SHP 350 Systems Analysis in Health Care. Explores issues that affect health care. The framework of a conceptual systems model (Neuman) will be used through the study of five foundational variables (physiological, psychological, sociocultural, spiritual, and development) to reach an understanding of a holistic perspective. Prerequisite: At least junior standing and/or admission to one of the SHP professional programs. (2-0-0). Two credits. Offered fall semester.

SHP 408 Professional Roles/Issues in Health Care. Interdisciplinary perspective that introduces the role of health care professionals in a changing health care system. Introduces managed care, documentation, and reimbursement issues. Examines how ethical and legal issues will affect the health care worker. Presents systems theory perspectives and familiarizes students with effective communication techniques. (2-2-0). Prerequisite: Admission to one of the programs in the School of Health Professions. Three credits. Offered fall semester.

SHP 419 Neuromuscular Development and Control. Emphasis on neurological and musculoskeletal development from conception to adolescence and how this development relates to function. Current theories in motor control, motor learning, and motor development will be introduced. (4-0-2). Prerequisite: HS 427 and 428 and admission to one of the programs in the School of Health Professions. Three credits. Offered spring/summer semester.

SHP 480 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisites: Variable. Three credits.

SHP 499 Independent Study—School of Health Professions. Students will complete a reading project or other approved activity building upon declared student interest. Tangible final product must be completed according to criteria developed by the student and the advisor. Prerequisite: One semester of professional program; permission of professional program director. One to three credits. Offered fall, winter, spring/summer semesters.

SHP 510 Introduction to Health Professions Research. Provides in-depth discussion and relevance of research literature. Emphasis on critical analysis of research articles. Independent thought and critical thinking skills will be addressed. Assigned readings will offer students the opportunity to examine prevailing research in health professions. Prerequisite: Good standing in one of the SHP professional programs. (2-0-0). One credit. Offered spring/summer semester.

SHP 580 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisites: Variable. Three credits.

SHP 610 Research in the Health Professions. Investigates the theories, paradigms, and steps necessary to select and approach a research problem. A continued emphasis (from SHP 510) on critical analysis of research articles, designing and writing research proposals, and further refinement of the research process. Prerequisite: 510 and good standing in one of the SHP professional programs. (2-0-0). Two credits. Offered fall semester.

SHP 621 Management in Rehabilitation. Interdisciplinary study of management behaviors and processes for effective administration of clinical rehabilitation settings. Emphasizes organizational behaviors, structures, and systems. Examines staffing, personnel evaluation, fiscal management, quality assurance, and ethics. Prerequisite: Good standing in one of the SHP professional programs or consent of instructor. (2-0-0). Two credits. Offered winter semester.

SHP 622 Case Studies in Rehabilitation. Students research and present oral and written case studies of selected patients seen during clinical affiliations. Rationales for evaluation and treatment are presented. Alternate procedures and treatment plans discussed. Prerequisite: Successful completion of all previous didactic and clinical professional work or consent of instructor. (2-0-0). Two credits. Offered winter semester.

SHP 625 Health Professions Leadership. Introduces students to leadership practices that transcend professional boundaries. Discussion will include leadership theories, their application in health care, and the development of an individual leadership plan consistent with personal and professional goals. Prerequisite: Successful completion of all previous didactic and clinical professional work or consent of instructor. (3-0-0). Three credits. Offered winter semester.

SHP 688 Health Professions Research I. First of two courses in which a group of students defines a problem within the health professions. Application of foundational concepts

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and methodology used in research are addressed. Coursework involves literature review, research design, and proposals. Group research will be guided by appropriate faculty. Prerequisite: SHP 610 and good standing in one of the SHP professional programs. One to three credits. Offered every semester.

SHP 689 Health Professions Research II. Second of two courses in which a group of students defines a problem within the health professions. Coursework involves data collection, analysis, and interpretation. Students will present written and oral reports discussing pertinent findings. Research studies will be guided by and defended to appropriate faculty. Prerequisite: 688 and good standing in one of the SHP professional programs. Three credits. Offered every semester.

SHP 690 Master's Thesis Proposal. The individual student will select a significant and original research question pertinent to the health professions. Coursework involves literature review, research design, and submission of a research proposal with the guidance of a faculty committee. Prerequisite: SHP 610 and good standing in one of the SHP professional programs. One to three credits. Offered every semester.

SHP 695 Master's Thesis. Continuation of research activity developed in SHP 690. The individual student will conduct a significant and original proposed study. Coursework involves data collection, analysis, and interpretation. The student will present written and oral reports discussing pertinent findings. Research will be guided by and defended to a faculty committee. Prerequisite: 690 and good standing in one of the SHP professional programs. Three credits. Offered every semester.

SHP 699 Independent Study—Health Professions. Students will complete a reading project or other approved activity building upon declared student interest. Tangible final product must be completed according to criteria developed by the student and the advisor. Prerequisite: Good standing after three semesters on one of the SHP professional programs; permission of the professional program director. One to three credits. Offered fall, winter, and spring/summer semester.

History (HST)

Chair: Smither. Distinguished Professor: Smith; Professors: Cole, Devlin, Goode, Mapes, G. Stark, Travis; Associate Professors: Galbraith, Kelleher, O'Neill, Shapiro-Shapin, Smither, Tripp, Welch; Assistant Professors: Buckridge, Cooley, Coolidge, Jiang, Murphy, Shankman, D. Stark.

What human beings can do, might do, or ought to do makes no sense at all unless we know what they have done already. This involves the study of history. History examines the lives of people, the consequences of ideas, and the unending quest of daily bread. It presents human misfortunes and greatness as well as the struggle for survival. Study of the past reveals valuable achievements as well as dreadful mistakes, and in so doing helps us meet the unexpected challenges of our own day.

Requirements for a History Major

Students majoring in history are required to complete at least 39 credit hours, including the five survey courses, a course in the writing of history, six upper-division electives, and the capstone. The seven required courses include:

HST 203 World History to 1500
HST 204 World History since 1500
HST 205 American History to 1877
HST 206 American History since 1877
HST 210 Empire, Culture, and Conflict
HST 300 Writing History
HST 495 Varieties of History (Capstone)

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The six upper-division electives must include at least one course in United States history, one course in European history, and one course in non-Western history. The remaining three upper-division courses may be in any area of history. Each student will select those courses in consultation with his or her major advisor. Majors must maintain a GPA of at least 2.0 in courses in the department and must receive a grade of C or better in HST 300 and 495. Majors seeking teacher certification must maintain a GPA of at least 2.8.

Courses that fulfill the United States history requirement include

HST 301 Colonial and Revolutionary America
HST 303 Era of Sectional Conflict and Civil War
HST 305 The United States Transformed
HST 306 Recent U.S. History, 1930 to Present
HST 312 History of American Women
HST 314 African-American History
HST 315 Latinos: The Forging of Ethnic Identities
HST 316 U.S. Civil Rights Movement History
HST 317 History of American Foreign Relations
HST 320 American Indians
HST 323 Michigan History
HST 326 Industrializing America
HST 327 History of American Urban Society
HST 328 Constitutional History of the United States
HST 329 Intellectual History of the United States
HST 370 History of Medicine and Health
HST 371 History of Gender, Family, Sexuality

Courses that fulfill the European history requirement include

HST 350 Classical Greece and Rome
HST 355 The Middle Ages
HST 360 Tudor and Stuart England
HST 361 Modern Britain
HST 363 European Social and Cultural History
HST 364 Renaissance and Reformation Europe
HST 365 Early Modern Europe
HST 370 History of Medicine and Health
HST 371 History of Gender, Family, Sexuality
HST 376 History of Witches
HST 377 History of Warfare
HST 384 Revolutionary Europe, 1789–1900
HST 385 Europe 1900–1945
HST 386 Europe since World War II
HST 387 Modern Germany
HST 390 Soviet History

Courses that fulfill the non-U.S./non-European history requirement include

HST 330 Early Latin America
HST 331 Modern Latin America
HST 333 Survey of Modern Chinese History
HST 334 The Making of the West Indies
HST 335 African Civilizations before 1870
HST 336 Africa after 1870
HST 337 The Age of Islamic Empire
HST 338 Modern Middle East
HST 340 History of East Asia to 1800
HST 341 History of East Asia since 1800

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HST 342 History of East Asian Religions
HST 345 The Ancient Mediterranean and Orient
HST 372 From Slavery to Freedom
HST 374 Revolution in the Americas
HST 389 Russian History
HST 391 Russian Thought—Ninth to Twentieth Centuries

HST 380, Special Topics in History, depending on the topic studied, may be used for any of the three categories.

Requirements for the History Minor

Students who minor in history must complete at least 20 credit hours, including:

HST 203 World History to 1500
HST 204 World History since 1500
HST 205 American History to 1877
HST 206 American History since 1877
HST 210 Empire, Culture, and Conflict

The remaining two courses must be selected from 300-level offerings; at least one of these courses must be in European or non-Western history. Minors must maintain a GPA of at least 2.0 in courses in the department. Minors seeking teacher certification must maintain a GPA of at least 2.8.

Transfer students seeking a major in history must complete at least 12 credits in history at GVSU, including a minimum of two upper-level courses. Ordinarily, transfer students will complete the capstone course (HST 495) at GVSU. Transfer students seeking a minor in history must complete at least six credits from among the GVSU history offerings.

Post-graduate students seeking teacher certification with a major in history must present a history major that includes courses in American, European, and world history and must have obtained a major GPA of at least 2.8 in previous work. Post-graduate students whose degree in history was completed more than three years prior to GVSU admission must demonstrate currency by completing at least two upper-level history courses at GVSU; such students must maintain a minimum GPA of 2.8 in those courses. Such students should consult the Chair or the Assistant Chair for an evaluation of their previous work and to discuss appropriate courses.

Students planning to enter a program of graduate study in history should earn a B.A. degree. Candidates for the B.A. degree must demonstrate third-semester proficiency in a foreign language, either by completing successfully a 201-level language course or by passing a proficiency examination in the language chosen. Students who choose to earn a B.S. degree must complete the following cognate sequence:

CS 150 Introduction to Computing
STA 215 Introductory Applied Statistics
SS 300 Research Methods in the Social Sciences

The Breen Prize for the best essay on a historical topic is awarded by the department each year. Essays are due in March. Details are available in the History Department office.

Advanced Placement and CLEP tests are offered for History:

HST 205 American History to 1877
HST 206 American History since 1877

Phi Alpha Theta

The local chapter of this international history honor society promotes the study of history by honoring students who have maintained high academic standards throughout their college careers. Members participate in a variety of intellectual and social activities throughout the academic year. Students who have completed at least four history classes and who have maintained a GPA of at least 3.0 are encouraged to apply. Contact Professor Andrew Shankman, Chapter Advisor, for more information.

Graduate Work

The History Department offers graduate courses that are included in the options in the M.Ed. in General Education (Middle and High School Emphasis).

Students apply to the School of Education for admission to the M.Ed. Program. Students selecting the History option should have earned an undergraduate major or minor in history or social science. Prerequisites in all 600-level courses include: graduate standing with a major or minor in history or social science or consent of instructor.

The program consists of a minimum of 33 hours (at least 11 courses), including a minimum of 18 hours (at least six courses) in education and a minimum of 15 hours (at least five courses) in history. Students in the program will have an advisor from the School of Education and an advisor from the History Department.

Students who choose this concentration will, with the help of an advisor from the History Department, select courses from the following groups, as indicated (all courses carry three credits).

Historical and Research Methods (minimum of one course):

HST 600 Historiography
HST 605 Techniques in Local and Archival History

U.S. History (minimum of one course):

HST 625 The United States in the Nuclear Age

Non-Western History (minimum of one course):

HST 630 The Middle East in the Twentieth Century
HST 632 A History of Brazil
HST 633 Issues in Third World History

European History (minimum of one course):

HST 643 The French Revolution
HST 648 European Origins of World Wars I and II

HST 680, depending on the topic, may be used for any of the categories.

Career Opportunities

Careful training in research, writing, critical reading, and interpretation makes history graduates attractive to a great number of employers who value these abilities. History majors enjoy a high rate of employment in a wide variety of careers, including politics, law, business, education, journalism, foreign and civil service, editing, and private research.

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Sample Curriculum

First Year

HST 203 World History to 1500
HST 204 World History since 1500
ENG 150 Strategies in Writing
MTH 110 Algebra
Three General Education Foundation courses
Two foreign language courses (B.A. candidates)
CS 150 Introduction to Computing
STA 215 Introductory Applied Statistics
(B.S. candidates)

Second Year

HST 205 American History to 1877
HST 206 American History since 1877
HST 210 Empire, Culture, and Conflict
HST 300 Writing History
Four General Education Foundation courses
One foreign language course (B.A. candidates)
SS 300 Research Methods in the Social Sciences (B.S. candidates)

Third Year

Three 300-level history courses
Five elective courses
Two General Education Theme courses

Fourth Year

Three 300-level history courses
History 495 Varieties of History (Capstone)
One General Education Theme course
Six elective courses

Courses of Instruction

Courses on the 100 level are introductory courses designed to fulfill the general education requirement in Historical Perspectives. Courses on the 200 level are introductory courses designed to prepare students for advanced study in history; HST 203 also fulfills the general education requirement in Historical Perspectives. Courses on the 300 level focus on particular regions, era or themes; they are intended for history majors and minors, social studies majors, and other interested students. All 300- and 400-level courses have prerequisites; 600-level courses are intended for graduate students and very well-qualified seniors.

HST 101 Introduction to World Civilizations. Designed to support general education goals and develop historical perspectives, this course emphasizes the comparison of selected African, American, Asian, and European civilizations from ancient times to the present, exploring the variety of activities that divide and unite human beings across cultures, time, and space. Fulfills Historical Perspectives Foundation. Three credits. Offered fall and winter semesters.

HST 102 Introduction to European Civilizations. Designed to support general education goals and develop historical capabilities, this course examines the history of Europe from the later Middle Ages to the present, emphasizing the interaction of political, social, economic, intellectual, and cultural factors to produce historical change and alter Europe's relationship to the rest of the world. Fulfills Historical Perspectives Foundation. Three credits. Offered fall and winter semesters.

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HST 103 Introduction to American Civilizations. Designed to support general education goals and develop historical capabilities. This course examines American history from European contact with the Native Americans to the present, emphasizing the interaction of political, social, economic, intellectual, and cultural factors that shaped the United States and the nation's interaction with the world. Fulfills Historical Perspectives Foundation. Three credits. Offered fall and winter semesters.

HST 203 World History to 1500 A.D. Basic content and methods of history through an introductory study of world cultures before 1500. The course focuses on specific societies in Africa, Asia, Europe, and the Western Hemisphere, analyzing and comparing the ways in which political, economic, social, cultural, and demographic factors influenced the development of these various cultures. Required for majors. Fulfills Historical Perspectives Foundation. Supplemental writing skills course. Three credits. Offered fall and winter semesters.

HST 204 World History since 1500. Basic content and methods of history through an introductory study of world cultures from 1500 to present. The course focuses on specific societies in Africa, Asia, Europe, and the Western Hemisphere, analyzing and comparing the ways in which political, economic, social, cultural, and demographic factors influenced the development of these various cultures. Required for majors. Supplemental writing skills course. Three credits. Offered fall and winter semesters.

HST 205 American History to 1877. The formation of American character and society, the role of democracy and the impact of the Revolution and Civil War on values and political institutions. Required for majors. Supplemental writing skills course. Three credits. Offered fall and winter semesters.

HST 206 American History since 1877. Political systems in an urban industrial society, a mass production economy, emergence of America as a world power and the quest for social equality. Required for majors. Supplemental writing skills course. Three credits. Offered fall and winter semesters.

HST 210 Empire, Culture, and Conflict. An introduction to the history of non-Western cultures and the development of their relationships with Western Europe and the United States. Regional emphasis varies. Course may not be repeated for additional credit. Supplemental writing skills course. Fulfills World Perspectives requirement. Three credits. Offered fall and winter semesters.

HST 300 Writing History. Students will learn about the writing of history by writing it, basing their accounts on primary sources. They will engage in careful, objective consideration and criticism of the writing of other students in the class, and their own work will receive the same kind of attention. Writing topics may vary from semester to semester. A supplemental writing skills course. Prerequisite: Completion of writing skills course. Required for majors. Three credits. Offered fall and winter semesters.

HST 301 Colonial and Revolutionary America. American history from the early settlements to ratification of the U.S. Constitution. Emphasizes Native American cultures, Indian-white relations, origins of slavery, and the diverse ethnic, religious, and cultural origins of American society. Includes examination of the causes, nature, and effects of the Revolution and the making of the federal constitution. Prerequisites: 205, 206, or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 303 Era of Sectional Conflict and Civil War. Examination of U.S. social, political, and cultural history from 1800 to 1877. Emphasis on the rise of sectionalism and the causes and consequences of the American Civil War. Prerequisites: 205 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 305 The United States Transformed. An in-depth chronological survey of the United States during the years 1877 to 1929. Emphasis will be given to changes in the social, industrial, agricultural, and urban structures as the United States was transformed from an agricultural nation to an industrial world power. Prerequisites: 206 or junior standing. Three credits. Offered fall semester, even-numbered years.

HST 306 Recent U.S. History, 1930 to Present. Analysis of the forces that have shaped society in contemporary America: the Cold War, consumer economy, the civil rights movement, youth culture, the new woman, development of the welfare state, new left and neo-conservatism. Prerequisite: 206 or junior standing. Three credits. Offered fall semester, odd-numbered years.

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HST 312 History of American Women. Analysis of the political, social, economic, and cultural history of women in American society from the colonial era through the present. Topics include domesticity, suffrage, health, employment, race, war and feminism. Prerequisites: 205, 206, or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 314 African-American History. Examines the history of African Americans from forced migration through the Civil Rights Movement. Issues studied include race relations, black culture in slavery, emancipation, the origins of segregation, the “great migration,” and the Civil Rights Movement. Prerequisites: 205, 206, or junior standing or consent of the instructor. Three credits. Offered fall semester, even-numbered years.

HST 315 Latinos: The Forging of Ethnic Identities. Examination of the ways in which Mexicans, Cubans, Puerto Ricans, Central Americans, and others have over time created ethnic identities in the United States out of their transnational experiences. Also explores the impact of this process on American political, economic, and social structures. Prerequisites: 206 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 316 U.S. Civil Rights Movement History. This course will focus on United States civil rights leaders and their rhetoric of resistance, and focus on the social and cultural formations that undermined racial segregation. It will also examine the events and forces that created space for a successful movement. Part of Civil Rights Theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits. Offered fall semesters.

HST 317 History of American Foreign Relations. Historical development of United States relations with foreign powers focusing on issues of war and peace. Concentration on significant periods of policy formation and change, with attention to factors determining policy. Part of the Making War and Peace theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits. Offered fall semesters.

HST 320 American Indians. An examination of selected topics and peoples from among the diverse Native American peoples north of Mexico, from the mythic beginnings to the modern era. Topics include problems of writing Indian history, ethnohistory, Indian-white relations, environmentalism, survival, assimilation, and Indian perspectives on American history. Prerequisites: 205, 206, or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 323 Michigan History. A survey of the major economic, political, and social themes in Michigan. Special emphasis will be placed on the urban development of Detroit and Grand Rapids, the auto industry, race relations, and modern political trends. Prerequisite: 206 or junior standing. Three credits.

HST 326 Industrializing America. Examines labor and working-class culture from the artisan republic through the industrial revolution and beyond. Topics studied include the evolution of class relations, working-class culture, the labor movement, labor and gender, labor and race. Prerequisites: HST 205, 206 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 327 History of American Urban History. An historical analysis of American urban structures including the commercial city, the industrial city, the suburbs, and the edge city. These structures will be seen as metaphorical theatrical stages upon which ethnic, racial, gender, and economic groups create social and cultural formations. Part of Cities Theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits.

HST 328 Constitutional History of the U.S. Introduction to the constitutional history of the United States, with particular focus on the creation of the Constitution, the role of judicial review, and the changing meaning of the Constitution. Prerequisite: 205 and 206 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 329 Intellectual History of the United States. A study of the major intellectual traditions; includes the Puritan synthesis of the 17th century, the republican ideologies of the 18th century, the romantic movement of the 19th century, and the existentialist ethos of the 20th century. Prerequisite: 205 and 206 or junior standing. Three credits. Offered fall semester, odd-numbered years.

HST 330 Early Latin America. A comparative examination of common Latin America socio-economic, political, and cultural topics from pre-Columbian times to the nineteenth century. Prerequisites: 210 or junior standing. Three credits. Offered fall semester, even-numbered years.

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HST 331 Modern Latin America. A comparative examination of common socio-economic, political, and cultural topics in 19th and 20th century Latin American societies. Prerequisites: 210 or junior standing. Three credits. Offered fall semester, odd-numbered years.

HST 333 Survey of Modern Chinese History. Introduction to modern Chinese history from the late Ch'ing Dynasty to the present. Particular emphasis will be on China's two revolutions in 1911 and 1949 and the rise of Communism. Prerequisite: Junior standing. Three credits.

HST 334 The Making of the West Indies. A survey of Caribbean history from the pre-colonial era to the rise of nationalism and independence. Course will emphasize specific islands and will cover a wide range of topics, such as the rise of the plantation system, slavery and emancipation, cultural retention, resistance, migration, and inter-regional relations. Prerequisite: HST 210 or junior standing. Offered fall semester, even-numbered years. Three credits.

HST 335 African Civilizations Before 1870. African civilizations to the nineteenth century. It will concentrate on the economic, cultural, social, and religious characteristics of specific African societies before European conquest of the continent. Topics include human evolution, languages, dress, social organization, Atlantic slave trade, slavery in Africa, and state formation. Prerequisites: 210 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 336 Africa after 1870. A study of Africa from late nineteenth century to the present. It will focus on African societies on the eve of European colonial conquest; conquest and Africans' response, transformation of African societies under colonial rule; the rise of nationalism and the process of decolonization and post-independence developments. Prerequisite: HST 210 or junior standing; students are encouraged to take HST 335. Three credits. Offered winter, odd numbered years.

HST 337 The Age of Islamic Empire. A historical and cultural examination of the Islamic peoples from pre-Islamic Arabia to the end of World War I. Emphasis on social, religious, economic, and political factors during each phase in Islam's development since the eighth century. Prerequisite: 203 and 204 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 338 Modern Middle East. A survey of cultural, economic, and political developments in the Middle East and North Africa from the end of World War I, with particular attention to the rise of nationalism and issues of modernization. Prerequisite: 204 and 206 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 340 A History of East Asia to 1800. Introduces major themes of the history of East Asia (China, Japan, Korea, and Vietnam) from prehistory to 1800. Explores cultural interactions among East Asian countries as well as their indigenous cultural traits. Some basic skills, such as critical reading and writing, will also be practiced. Three credits. Offered in odd-numbered years.

HST 341 A History of East Asia since 1800. Introduces major themes of history of East Asia (China, Japan, Korea, Vietnam), from 1800 to the present. Explores socio-political interactions with the West as well as the changing identities of East Asia in the modern world. Also involves basic skills, such as critical reading and writing. Three credits. Offered in even-numbered years.

HST 342 History of East Asian Religions. Introduces the major East Asian religious traditions and their modern developments through historical perspectives; also explores religious interactions among East Asian countries as well as their indigenous traits. Readings include primary materials and interpretative secondary scholarship. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Part of Religion theme. Three credits. Offered fall semester.

HST 345 The Ancient Mediterranean and Orient. Examination of literate civilizations of the ancient world from their origins in the Mesopotamian, Nile, Indus, and Yellow River Valleys through Classical Greece to the culmination in the great empires of Han China, Parthian Persia, and Rome. Includes comparative study of institutional, social, economic, intellectual, and religious developments and trends. Prerequisite: Junior standing or 203. Three credits. Offered fall semester, odd-numbered years.

HST 350 Classical Greece and Rome. Study of the historical developments of the ancient Greek and Roman civilizations, including examination of the social, religious, economic, literary, and artistic aspects of these cultures. Prerequisites: 203 or junior standing. Three credits. Offered fall semester, even-numbered years.

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HST 355 The Middle Ages. Cultural, political, and economic aspects of medieval Europe. Emphasis on the intellectual, social, artistic, and spiritual uniqueness of medieval civilization. Prerequisite: 203 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 360 Tudor and Stuart England. English history from 1485 to 1714 with appropriate attention to political, constitutional, and religious issues. Prerequisite: 204 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 361 Modern Britain. Examines Britain's social, political, and economic history from 1688 to the present. Topics include industrialization, building and collapse of empire, two world wars, and other major political and social changes in modern British history. Prerequisites: 204 or junior standing. Three credits. Offered winter semester, even-numbered years.

HST 363 European Social and Cultural History. Survey of European social and cultural history in the period 1300–1800, combining primary sources with modern studies of specific topics such as popular culture, women's history, witchcraft, and peasant rebellions. Prerequisites: 203 or 204 or junior standing. Three credits. Offered fall semester, even-numbered years.

HST 364 Renaissance and Reformation Europe. Survey of European history from 1350 to 1560. Topics include political, social, cultural, intellectual, and religious history, with emphasis on major changes in these areas in Renaissance Italy and Reformation Germany, and on the connections between these changes. Part of Changing Ideas; Changing Worlds theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits. Offered fall semester.

HST 365 Early Modern Europe. Major emphases are the development of the early modern state and the crisis of the seventeenth century. Appropriate attention is given to economic, social, and intellectual developments. Prerequisite: 204 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 370 History of Medicine and Health. Survey of medical and health-related topics from ancient Greece through the present. Course units will include disease migration, unorthodox medicine, professionalization, sanitary science, bacteriology, medicalization of deviance, nursing, philanthropy, gender, colonialism, environmental/industrial medicine, Medicare/Medicaid, and AIDS. A supplemental writing skills course. Part of Health, Illness, and Healing theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits. Offered fall semester, odd-numbered years.

HST 371 History of Gender, Family, Sexuality. Explores the history of gender, family, and sexuality in selected modern European and North American countries. It will examine how men's and women's role, the demographics of and ideas about family life, and understandings of sexuality have changed over time. Part of Gender, Society, and Culture theme. Prerequisite: 204 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 372 From Slavery to Freedom. Ironically, modern concepts of freedom emerged from societies deeply invested in its opposite, slavery. This course looks at the history of slavery and its abolition in four American societies—Haiti, the U.S., Cuba, and Brazil—to distinguish the distinctive ways in which each of them defined and constructed freedom. Part of Freedom and Social Control theme. Prerequisite: 210, LAS 210 or junior standing. Three credits. Offered fall semester.

HST 374 Revolution in the Americas. Men and women make history, sometimes through gradual, passive means and sometimes through sudden, active means. In the Americas, both categories of history-making have been common. This course explores international relations in the hemisphere by comparing revolutionary and evolutionary processes of change from Tierra del Fuego to the Northwest Territories. Part of Revolution and Evolution in the Americans theme. Prerequisite: 210, LAS 210 or junior standing. Three credits. Offered winter semester.

HST 376 History of Witches. Examines the wave of witch trials in Europe and New England in the 16th and 17th centuries, from its origins in medieval Christianity and folklore to the Salem witch trials of 1692, from a variety of perspectives, with emphasis on the marginalization of the accused witches within their communities. Part of Marginality and Difference theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits. Offered winter semester.

HST 377 History of Warfare. Survey of the role of warfare in world history from prehistory to the beginning of the industrial era. Uses a variety of media and sources to examine

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why and how humans have fought wars and how warfare has affected different aspects of human experience in different world regions and eras. Part of Making War and Peace theme. Prerequisite: Completion of Historical Perspectives Foundation or junior standing. Three credits. Offered winter semester.

HST 380 Special Topics in History. A study of special topics, areas, or periods of history not offered in the regular curriculum. The selected focus will be described in the class schedule. Expectations of students in this course approximate those of other 300-level history courses. Prerequisite: Junior standing. Three credits.

HST 384 Revolutionary Europe, 1789–1900. Europe from the French Revolution to 1900. Topics include thought, politics, foreign affairs, culture, war, and revolution in the age of industrialization and nationalism. Prerequisite: 204 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 385 Europe 1900–1945. Examination of European history from 1900 to 1945, including Belle Epoque politics, society, and culture; World War I; politics of peace-making; revolution and civil war in Russia; inter-war era; Stalin's rise to power; European fascism, with emphasis on Nazi Germany; diplomacy of the 1930s; and World War II. A supplemental writing skills course. Prerequisite: 204 or junior standing. Three credits.

HST 386 Europe since World War II. Examines Europe from the end of the Second World War to the present. Topics include: post-war Europe; the Soviet bloc; the Cold War; decolonization; political, social, and cultural developments in East and West Europe; the European Economic Community; the disintegration of the Communist bloc; contemporary Europe. A supplemental writing skills course. Part of Global Change Theme. Prerequisite: Historical Perspectives Foundation or junior standing. Three credits.

HST 387 Modern Germany. A survey of German history and culture since 1870, including the Imperial period of Bismarck and Wilhelm II, World War I, the Weimar Republic, Hitler's Third Reich, World War II, post-war division, and reunified Germany. Prerequisite: Historical Perspectives Foundation or junior standing. Three credits. Offered winter semester, odd numbered years.

HST 389 Russian History. From the ninth through the nineteenth century. Topics include the origins of Russian expansion, the development of Russian civilization, and the origins of Revolution. Prerequisite: 203 and 204 or junior standing. Three credits. Offered fall semesters, even-numbered years.

HST 390 Soviet History. From the Russian Revolution to the recent past. Topics include Lenin, Stalin, World War II, and the Cold War. Prerequisite: HST 204 or junior standing. Three credits. Offered winter semester, odd-numbered years.

HST 391 Russian Thought—Ninth to Twentieth Centuries. History of Russian thought from the ninth to the twentieth century, including Byzantine, Mongol, and Western influences. Prerequisites: 203 and 204 or junior standing. Three credits. Offered fall semester, odd-numbered years.

HST 399 Independent Study. Intensive study of a topic, arranged as to credit and content with a member of the department. No more than three credits of History 399 may be applied to the major or minor. Prerequisites: Junior standing. One to three credits. Offered on arrangement.

HST 490 History Internship. Supervised work experience in a history-related field, initiated by the student, who must prepare a proposal in consultation with a faculty advisor and a worksite supervisor. The student will submit a final report, and both the worksite supervisor and the faculty advisor will evaluate the internship. Prerequisite: 15 hours of coursework in history and permission of the department chair. One to three credits. Offered every semester.

HST 495 Varieties of History (Capstone). Examines the development of historical writing and various approaches to interpretation. Case studies will vary from year to year. Prerequisite: 300 and senior standing. For history majors only except by permission of the chair. Required for majors. Three credits. Offered fall and winter semesters, every year.

HST 600 Historiography. An examination of the rise and development of historical writing, problems of historical interpretation, and the philosophy of history. Offered every third year.

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HST 605 Techniques in Local and Archival History. An introduction to techniques of using material from local archives and other nearby sources for research and preparation of classroom materials. Three credits. Offered summers of even-numbered years.

HST 625 The United States in the Nuclear Age. A study of major political and diplomatic developments in U.S. history, 1945–1975. Three credits. Offered every third year.

HST 630 The Middle East in the Twentieth Century. An introduction to the contemporary history of the Middle East, focusing on the recent crisis areas and problems of modernization. Three credits. Offered every third year.

HST 632 A History of Brazil. Larger than the continental United States, Brazil offers much to the study of the modern world. The course uses Brazilian history from 1500 to the present to examine major questions that continue to perplex analysts of the human condition. Course requires no prior knowledge of the history of Brazil. Prerequisites: Consent of the instructor or graduate standing. Three credits. Offered every other year.

HST 633 Issues in Third World History. An introduction to major debates in modern Asian, African, and/or Latin American history, emphasizing the critical analysis of Third World interpretations of history, modernization, politics, colonialism, nationalism, and society. Three credits. Offered every other year.

HST 643 The French Revolution. An examination of both the history and historiography of the French Revolution of 1789, emphasizing critical analysis of sources and their interpretation. Three credits. Offered every third year.

HST 648 European Origins of World Wars I and II. An investigation of the causes, both long-term and proximate, of the two world wars fought during the first half of the twentieth century, emphasizing varying interpretations of the origins of the wars. Three credits. Offered every third year.

HST 680 Selected Topics in History. Study of selected historical topics or periods not offered in the regular curriculum. Topics vary between United States and World History. Prerequisites: Consent of instructor. Three credits. Offered every year.

History of Science Minor (HSC)

Faculty: Castelao-Lawless, Kopperl.

In today's technological society no person can be considered to be truly educated unless he or she has an understanding of the role of science in the world. The history of science program offers students the opportunity to go beyond the accumulation of scientific facts and to gain an understanding of the historical roots of science and technology as well as the interaction between scientific history and social, literary, economic, and political history. Thus, scientists can understand the history of their discipline as a part of the progress of human civilization. Non-scientists, on the other hand, can see that science is not a frightening series of facts and formulas that appeared from the chaos, fully developed in the brain of an Einstein or a Newton.

In this regard, the history of science is no different from any other branch of intellectual history. However, because new scientific theories by their very nature render earlier theories obsolete and worthless (at least to practicing scientists), interest in scientific history has been a relatively recent phenomenon.

Requirements for a Minor

A student choosing history of science as a minor program must complete 20 hours of study in the history of science, normally including 201, 202, 399, and related courses from other units. Courses not regularly offered may be available through independent study.

Courses of Instruction

HSC 201 The Scientific Revolution. Examines the revolutionary changes in people's view of their world and of themselves during the sixteenth and seventeenth centuries, from an animated magical world to a clockwork universe inhabited by mechanical men. The works of Copernicus, Galileo, and Newton are examined; their impact on society, religion, literature, and morals is sketched. Fulfills Historical Perspectives Foundation. Part of Changing Ideas: Changing Worlds theme. Occasionally offered for SWS credit. Three credits. Offered fall, winter, and some spring/summer semesters.

HSC 202 The Technological Revolution. Investigates the four major technological revolutions that have made a significant impact on society during the last 2,000 years. Emphasizes the transformation to a scientifically oriented industrial society in modern times. Occasionally offered for SWS credit. Fulfills Historical Perspectives Foundation. Three credits. Offered fall, winter, and some spring/summer semesters.

HSC 399 Readings in the History of Science. Offers students the opportunity to explore a topic in the history of science in depth under the supervision of a staff member. Prerequisites: Two history of science courses and permission of instructor. One to three credits. Offered fall and winter semesters.

Honors Program (HP)

Director: Callahan. Faculty Fellows: Ambrose, Balfour, W. Baum, Bernstein, F. Burns, E. Cole, Devlin, deYoung, Feurzeig, Flashenriem, Franciosi, Joannis, Joseph, Kelleher, Levitan, Lockerd, McGee, Pestana, Rayor, Rydel, Scott, M. Seeger, Shapiro-Shapin, J. Shontz, Swartzlander, Wilson.

The Grand Valley State University Honors Program is intended for students who, in their previous schoolwork, have demonstrated a distinctly high level of intelligence, motivation, creativity, and academic achievement. Drawing from all the undergraduate departments, the Honors Program provides its students a program with special academic opportunities and challenges.

Honors Program course offerings are designed to enhance and integrate the intellectual curiosity of students and to enlarge their world view and personal development. The designation "Honors Program Graduate" on a Grand Valley State University diploma and transcript is intended to recognize unusual distinction in the work of honors students.

Honors Program courses and seminars are taught by uniquely qualified and carefully selected faculty drawn from all disciplines. Honors Designate courses are part of the regular offerings of departments, and the Honors Senior Project is part of, or closely related to, work in a student's major. The objective of Honors Program courses is not to make the students do more work than in regular courses but to provide a qualitatively different learning experience. These courses are never graded on a curve.

Students benefit from participation in the Honors Program in a number of ways. They are presented with intellectual and academic challenges through sharing specially designed classes with other students of outstanding potential. These small classes are composed of highly motivated learners and provide a special atmosphere in which important questions and student ideas are treated seriously. By participating with other select students in small classes and by living with these students in Glenn A. Niemeyer Living Center (optional), students in the program form a community of scholars.

Honors Program

Advantages

There are several advantages to Honors education—some practical and some more philosophical in nature. The practical advantages are

1. Honors classes tend to be smaller in size with rarely more than 25 students per section;
2. Many students will use the Honors Arts and Humanities course sequences to satisfy the requirement for Writing 305 as well as all supplemental writing requirements.
3. Completion of the Honors Program satisfies the requirement for a “theme”;
4. Participation in the Honors Program permits a student to live in Glenn A. Niemeyer Living Center, a combined residential and instructional building;
5. Students in the Honors Program form a close association with other students taking the same classes and form study groups;
6. Honors students have unique travel opportunities such as trips to Chicago and to Washington, D.C. to the Holocaust Museum and the Supreme Court, and they are encouraged to take advantage of the study abroad opportunities;
7. Honors students have increased opportunities to participate in research as undergraduates and present their work at Student Scholarship Day; and
8. The Honors Program is flexible and permits reasonable substitutions in coursework to accommodate program requirements in the student’s chosen field of study.

Perhaps the most significant advantages of Honors education are less obvious:

9. Honors education is qualitatively different from regular general education because it is an integrated package with classes that are specially designed to foster advanced writing and speaking skills; critical thinking and analysis; and increased opportunities for student-faculty interaction. Smaller class size facilitates student-faculty interaction. In addition to greater classroom interaction with students, most faculty are also involved in activities in the residential setting. (Some faculty have offices in Glenn A. Niemeyer Living Center.)
10. Many Honors students are seeking admission to selective programs at GVSU or admission to post-baccalaureate education such as graduate or medical school. Completion of the Honors Program speaks well to the student’s academic ability and to the student’s ability to write, think, speak, and follow through. It simply looks good on the student’s record.
11. Honors students benefit from the most advanced instructional technology at the university.
12. Honors students are frequently selected for unique service and volunteer projects at the university. Volunteerism, service, and leadership opportunities allow students to grow and participate in challenging activities. Here again, this is viewed favorably by selections committees and future employers.
13. Honors students study, live, and play with other serious scholars. Close friendships form between students in classes and in the residence hall. Glenn A. Niemeyer Living Center is, as all previous Honors residence halls have been, alcohol free. The Honors Program faculty, staff, and students stress the important fact that drinking and scholarship simply are not compatible. (Niemeyer Living Center, like all buildings at GVSU, is smoke free.)

Honors Program

14. The faculty and older students in the Honors Program strive to instill a love of learning and pride in accomplishment in new students so that they can grow academically and personally while enjoying the baccalaureate experience. The ultimate goal is to help students become productive, intelligent, and competent citizens.

Completion of the Honors Program should not be confused with “Graduation with Honors,” which is determined strictly by final grade point average. The Honors Program requires not only a high grade point average but also successful completion of a special series of challenging courses. Completion of all Honors Program requirements results in the “Honors Program Graduate” designation on both the baccalaureate diploma and the college transcript. Graduates wear a special cord at Commencement.

There are special Honors Program tracks for most students in preprofessional areas, including business, engineering, and pre-health (nursing, physicians assistant studies, physical therapy, premed, etc.). Students in such major areas have a preplanned course program that includes not only their Honors Program requirements but also their basic major requirements as well.

The Honors Program is administered by a director and advisory committee composed of faculty members representing various disciplines and by student representatives. The committee determines requirements and guidelines and is involved in overseeing other aspects of the Honors Program.

Admission

Qualified students will be invited to participate in the Honors Program if they have a 3.5 high school GPA and an ACT score of at least 28.

Transfer students and those already enrolled at Grand Valley State University who wish to enter the Honors Program may apply for admission if they have a 3.5 college GPA.

The Honors Program will consider waiving program requirements for transfer students and students already enrolled at Grand Valley. It will not, however, waive admission criteria. Transfer and current students who meet these admission requirements or who have been in other college honors programs are encouraged to apply to the Honors Program by contacting the Honors Program director.

Students may withdraw from the Honors Program on their own initiative by notifying the director of their intent to do so. Students who do not maintain a 3.2 GPA per year are not considered to be active members of the program but may continue to take Honors Program courses with the director's permission.

It is assumed that all Honors Program courses require two hours per week of work for each hour of registered credit. Thus, Honors Program students should expect six hours of homework a week in a three-credit course.

Glenn A. Niemeyer Living Center

The Glenn A. Niemeyer Living Center has been designated as the University Honors Living Center. Students who have been admitted to the university's Honors Program may apply to live in this center. This arrangement allows students who have a strong commitment to academic excellence to live with other students of similar interest. The center is administered through a cooperative agreement between the Director of Housing and the Honors Program Director. Students living in

Honors Program

Niemeyer are involved in governance, social activities, and in program planning. Residents are often called upon by various university staff and administrators for suggestions, ideas, and reactions.

Space in Niemeyer is limited. Returning Honors students are encouraged to submit their housing applications as soon as possible. Incoming freshmen interested in living in Niemeyer must submit, along with their Honors Program application, a short paragraph explaining why they would like to live in Niemeyer and what they will contribute to the community. Additionally, they must indicate on their separate housing application that they wish to live in Niemeyer.

Honors Program Orientation

A special orientation for first-year students in the Honors Program will be held on August 24 and 25. The orientation begins at 2 p.m. on August 24 and ends at 2 p.m. on August 25. All new Honors students are urged to attend. Arrangements for early move-in will be made for those students living in on-campus housing.

Program Requirements and Courses

To complete the Honors Program a student must satisfy the following course requirements, which also fulfill the general education and writing skills requirements of the university, including the theme requirement.

1. Mathematics 110. All students must satisfy this requirement by taking the course, testing out of the course, or by waiver from mathematics taken in high school and sufficiently high ACT score.
2. Writing 150. Many Honors students satisfy this requirement by taking AP English in high school and scoring 3 or better on the AP test. Each first-year student must discuss her/his status with the program director or with Honors Arts and Humanities faculty regarding WRT 150. Students needing WRT 150 will take the course in the second or winter semester.
3. Mathematical Sciences. All students must satisfy this requirement by taking one of the following courses or through AP scores of 3 or better in calculus. Courses satisfying this requirement are: CS 160; MTH 122, 123, 125, 131, 201 221; PHI 103; STA 215.
4. Integrated Arts and Humanities. All Honors students must complete one of the four following integrated Honors Arts and Humanities courses:
 - American Civilization (HP 213, 214, 223, 224)
 - Classical World (HP 211, 212, 221, 222)
 - European Civilization (HP 215, 216, 225, 226)
 - The Making of Europe (HP 217, 218, 227, 228)American Civilization, Classical World, and European Civilization are offered two courses per semester for two successive semesters. The Making of Europe is offered one course per semester for four successive semesters.
5. Students taking American Civilization will need a World Perspectives course. Students taking Classical World, European Civilization, and the Making of Europe will need a U.S. Diversity Course.
6. Honors Social Sciences. A two-course sequence introduces the Social Sciences. Honors Social Sciences use integration of methodology and content of the traditional Social Sciences to examine human behavior, experience, social and cultural phenomena, and formal institutions. A student may select one of two integrated sequences or may need to arrange acceptable substitutions necessitated by the student's planned program of study. (For example, Business

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majors must take one course in Economics and may substitute Economics for an Honors Social Science.) Honors Social Sciences sequences are HP 233 Society and Self: Sociological Perspective and HP 234 Society and Self: Psychological Perspective; or HP 231 The Holocaust and HP 232 Trauma, Culture, Memory.

7. Honors Natural Sciences. All students must take one course in the biological sciences and one in the physical sciences with one course having a laboratory component. Students majoring in engineering, pre-health curricula, or the sciences will substitute courses within their program for the Honors Sciences. The Honors Science sequence is HP 241 The Earth, A Global View and HP 242 Plants and People.
8. Honors Junior Seminar, HP 311 or 312. Each student takes at least one Honors junior seminar or HP 300 or HP 331 during her/his junior or senior year. Honors BIO 336 and certain other approved 300-level courses may satisfy this requirement.
9. Honors Senior Project, HP 499. See course description under Course Offerings. Satisfaction of the GVSU general education requirements through completion of the Honors Program does not add any additional course work to a student's program. In fact, it often results in a reduction of the number of general education credits required. Each student must see either the program director or an Honors Program advisor to prepare a course of study, which satisfies university requirements and Honors Program requirements. There is flexibility in Honors Program planning to meet the needs of various courses of study. Engineering majors must meet with the Director of Engineering as well as the Honors Program advisor for program planning.

Students in the pre-health curricula will meet with the pre-health advisor as well as with an Honors Program advisor.

Students selecting the Honors Program general education alternative may not satisfy the U.S. Diversity or World Perspectives university requirements. The Honors Program, like GVSU, is committed to appreciation of multicultural richness. Students need to take a course in the missing category. Each student must plan her/his satisfaction of this requirement with the Honors Program advisor.

Some students who begin the Honors Program choose to withdraw. The information given in Course Offerings (below) helps the student and her/his advisor determine which requirements in General Education have been satisfied.

Writing 305 Requirement

Students who complete any one of the four Honors Arts and Humanities sequences, have completed 60 credit hours, and who are in good standing in the Honors Program will have satisfied the WRT 305 requirement. Such students will not be required to take the placement examination or WRT 305.

Course Offerings

Note: All courses require admission to the Honors Program and/or permission from the Director.

HP 211 and 212 Classical World I (Historical Perspectives, Philosophy and Literature). Courses deal with the history, literature, intellectual history, philosophy, and arts of the Classical period with emphasis on Greeks and Romans. HP 211 and 212 must be taken concurrently. LD. Six credits. Offered fall semester.

HP 221 and 222 Classical World II (Arts, World Perspectives). Courses continue the study of history, philosophy, and culture of the Classical period begun in HP 211 and 212. Prerequisite: HP 211 and 212. Offered winter semester.

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HP 213 and 214 American Civilization I (Historical Perspectives, Philosophy and Literature). Courses provide a survey of American history, literature, and intellectual progress from European colonization through Reconstruction. LD. Six credits. Offered fall semester.

HP 223 and 224 American Civilization II (Arts, U.S. Diversity). Courses continue the study of American Civilization begun in HP 213/214. Emphasis is on philosophy and arts in American culture. LD. Prerequisites: HP 213 and 214. Six credits. Offered winter semester.

HP 215 and 216 European Civilization I (Historical Perspectives, Philosophy and Literature). Courses deal with European history, philosophy, and culture from the Middle Ages through the early modern period. The period emphasized varies with faculty expertise. HP 215 and 216 must be taken concurrently. LD. Six credits. Offered fall semester.

HP 225 and 226 European Civilization II (Arts, World Perspectives). Courses continue the study of European history, philosophy and culture begun in HP 215 and 216. LD. Prerequisites: HP 215 and 216. Six credits. Offered winter semester.

HP 217 The Making of Europe I. (Historical Perspectives) First of a four-course sequence exploring the development of European culture. Covers the period from the late Roman Empire to approximately 1000 A.D. History, philosophy, literature, art, and music of this era are presented. Topics include feudalism, early church architecture, national epics, Gregorian chant, philosophy of St. Augustine. Three credits. Offered fall semester

HP 218 The Making of Europe II: The High Middle Ages (Philosophy and Literature). Second of a four-course sequence exploring the development of European culture. Covers the period from approximately 1000 to 1350. History, philosophy, literature, art, and music of this era are presented. Topics include papacy and monarchy, Gothic architecture, Dante, early polyphony, St. Thomas Aquinas. Prerequisite: HP 217; Three credits. Offered winter semester.

HP 227 The Making of Europe III: Early Renaissance (World Perspectives). Third of a four-course sequence exploring the development of European culture. Covers the period from approximately 1350 to 1600. History, philosophy, literature, art, and music of this era are presented. Topics include Renaissance humanism; art of DaVinci, Michelangelo, Raphael; writing of Petrarch, Rabelais, Spenser; music of Machaut. Prerequisites: HP 217 and 218. Three credits. Offered fall semester.

HP 228 The Making of Europe IV: Late Renaissance (Arts). Last of a four-course sequence exploring the development of European culture. Covers the period from approximately 1550 to 1700. History, philosophy, literature, art, and music of this era are presented. Topics include Protestant Reformation; Baroque art; Shakespeare, Cervantes, Milton; sacred and secular music; Descartes and Hobbes. Prerequisites: HP 217, 218, 227. Three credits. Offered winter semester.

HP 231 The Holocaust. Investigates the psychological, social, political, historical, cultural, and economic sources of human aggression and cooperation by focusing on the Nazi destruction of European Jews in World War II. LD. Social Sciences. Three credits. Offered fall and winter semesters.

HP 232 Trauma, Culture, Memory. Examines a wide range of traumatic events (e.g., Nazi Holocaust, the assassination of Martin Luther King, Jr., the Vietnam War, and the Oklahoma City bombing) to understand the impact on culture and how culture, in turn, shapes the experience, meaning, resolution, and remembrance of these events. Course is interdisciplinary and incorporates materials from the arts, music, literature, and the sciences. LD. Social Sciences. Prerequisite: HP 231 or permission of instructor. Three credits. Offered winter semester.

HP 233 Society and Self: Sociological Perspective. Course satisfies the requirement for a first course in sociology. Common topics and discussion will create a dialogue between psychology and sociology. LD. Social Sciences. Corequisite: HP 234. Three credits. Offered fall semester.

HP 234 Society and Self: Psychological Perspective. Course satisfies the requirement for a first course in psychology. Common topics and discussion will create a dialogue between psychology and sociology. LD. Social Sciences. Corequisite: HP 233. Three credits. Offered fall semester.

HP 241 The Earth, A Global View. Course has two objectives: 1) understanding Earth as one, global, holistic, delicately balanced dynamic system and 2) understanding the critical

Hospitality and Tourism Management

interdependence between humans and Earth systems. Lecture, laboratory, and field trips. Physical Science with laboratory. Four credits. Offered fall and winter semesters.

HP 242 Plants and People. Plants are the dominant organisms on the landscape and are often taken for granted. The ecology, structure, function, genetics, and variety of plants are studied in order to develop an appreciation of the dependence of humans upon them for food, oxygen, shelter, medicines, and pleasure. Life Sciences. LD. Three credits. Offered fall and winter semesters.

HP 280 Honors Special Topics. A study of special topics, areas, or experiences not covered in the curriculum. The selected focus will be described in the class schedule. Prerequisites: admission to the Honors Program; previous HP course work. One to three credits. Offered on demand.

HP 300 Classical Mythology. Examines ancient Greek and Roman myths in their cultural and historical contexts. A variety of methods of interpreting myths are explored. Readings include myths that continue to influence modern literature and thought, such as the Homeric Hymns, Hesiod's Theogony, and Ovid's Metamorphoses. LD. Fulfills World Perspectives requirement. Three credits. Offered winter semester.

HP 311/312 Honors Junior Seminar. An intensive, in-depth study of a special problem or topic. The seminar, taken in the junior or senior year, is a capstone for the liberal arts component of the student's education. It provides an occasion for considering the ways in which liberal arts disciplines impinge upon each other. LD. Three credits.

HP 331 Culture and the Holocaust. Examines the Holocaust's effects on Europeans and on American culture. Likely areas of study will include literature, art, film, theology, architecture, and philosophy. LD. Fulfills World Perspectives requirement. Three credits. Offered fall semester.

HP 380 Honors Advanced Special Topics. Advanced study of special topics, areas, or experiences not covered in the curriculum. The selected focus will be described in the class schedule. Prerequisites: junior standing or 12 previous credits in HP courses. One to three credits. Offered on demand.

HP 499 Honors Senior Project. An individually designed project that is the culminating study in the student's major field. Offers an opportunity to do intensive study, writing, or research in the major or principal cognate field. Permit required.

Transfer students or those who are admitted to the program beyond the freshman year and who still need to fulfill distribution or general education requirements will enroll in the appropriate Honors sequence. They will take at least one Honors Seminar and complete one Honors Senior Project.

Transfer students with an associate's degree and students who enter the program after their general education or distribution requirements have been fulfilled must select a minimum of 12 hours of Honors Program courses to complete requirements for graduating from the program. These hours must include one Honors Seminar and one Senior Project and may include Honors designate courses.

Hospitality and Tourism Management (HTM)

Chair: King. Associate Professor: Stevens; Assistant Professors: Adams, King, Long. Degrees offered: B.S., B.A. in hospitality and tourism management. The B.S. degree requires a three-course cognate in quantitative reasoning. The B.A. degree requires third-semester proficiency in a foreign language.

The Hospitality and Tourism Management program prepares students for management positions and leadership roles in the fields of Hospitality Management and Meeting and Convention Management. The program was established in 1977

Hospitality and Tourism Management

in response to a regional need for educational support to prepare qualified managers for the profession. The integrative nature of hospitality and tourism education fits GVSU's goal of providing a curriculum that integrates liberal arts with professional courses that stress practical application. The industry's diversity and rapid expansion provide excellent career opportunities for GVSU graduates. Job placement rates for graduates from the Hospitality and Tourism Management program have consistently been among the highest at GVSU.

According to a recent edition of the *Occupational Outlook Quarterly* published by the U.S. Department of Labor, food service and lodging management is one of 25 occupations that "have it all: fast growth, high earnings, and low unemployment." The *Quarterly* further says that nearly 168,000 new food service and lodging management positions will be created between 1996 and 2006. Furthermore, an analysis of data from the Bureau of Labor Statistics (BLS) reveals that food service and lodging managers are expected to post the highest growth rate of any occupation, gaining 35 percent in the next 10 years.

Career Opportunities

Hotel and Resort Management
Convention Sales and Service Management
Convention and Visitors Bureau Management
Conference/Meeting Planning
Food and Beverage Service Management
Banquet and Catering Management
Restaurant Management
Club Management
Recreation and Theme Park Management
Special Events Coordination
Travel/Tour Planning

Mission

Our mission is to prepare students who have chosen hospitality and tourism as their career vocation for success in entry-level management positions, leadership roles, and life. The department's goal is to develop skilled graduates who are professional in demeanor and are respected for their integrity and humanity. This goal will be accomplished through a commitment to student learning and development marked by

- High expectations and standards of conduct and performance.
- Excellence in scholarship and instruction.
- Appropriate exposure to the industry and successful industry professionals.
- Sequential training and experience in the student's chosen area of the industry.
- Opportunities for ongoing community service.

Major Requirements

Students interested in majoring in hospitality and tourism management should discuss their career plans with a faculty member of the department and secure an advisor as soon as possible.

Majors must complete the following:

1. General university degree requirements as identified in the General Academic Regulations sections of the catalog.

Hospitality and Tourism Management

2. Hospitality and tourism management courses (minimum of 28 credits):
 - a. **Core courses:**
 - HTM 101 Fundamentals
 - HTM 343 Human Resource Management
 - HTM 361 Hospitality Law and Legislation
 - HTM 373 Hospitality Information Analysis*
 - HTM 452 Hospitality Marketing
 - HTM 495 Hospitality Management**
 - b. **Systems courses** (two of the following, with advisor approval):
 - HTM 213 Food Service Systems
 - HTM 222 Lodging Systems
 - HTM 235 The Tourism System
 - HTM 202 International Tourism
3. Hospitality and tourism management **field requirement** (seven credits):
 - HTM 190 Field Preparation
 - HTM 290 Field Experience I
 - HTM 390 Field Experience II
 - HTM 490 Senior Internship
4. **Career emphasis** (minimum of 15 credits, of which at least six credits must be in HTM, *with advisor approval*).
 - a. Food management emphasis. Students are required to complete HTM 213, Food Service Systems (core/systems requirement); HTM 112, Food Science and Technology; two additional credits in Hospitality and Tourism Management; and 11 credits of electives as part of their emphasis. The approval of the student's academic advisor is required to ensure that the course choices meet program requirements.
 - b. Lodging emphasis. Students are required to complete HTM 222 Lodging Systems (core/systems requirement); HTM 333 Property Management; three additional credits in HTM; and nine credits of electives as part of their emphasis. The approval of the student's academic advisor is required to ensure that the course choices meet program requirements.
 - c. Tourism/Travel emphasis. Students are required to complete HTM 235, The Tourism System (core/systems requirement); HTM 402, Tourism Planning and Development; three additional credits in HTM; and nine credits of electives as part of their emphasis. The approval of the student's academic advisor is required to ensure that the course choices meet program requirements.
 - d. Other emphasis. An emphasis of the student's own choosing *with prior advisor and department chair approval*. Examples of other emphases include computer applications, convention management, facilities management, health care, human resource management, resorts and clubs, and security.
5. Science and mathematics core (nine credits).
 - CS 150 Introduction to Computing*

*Successful completion of CS 150, STA 215, and HTM 373 satisfies the B.S. degree cognate for all HTM majors.

**Capstone course.

Hospitality and Tourism Management

MTH 110 Algebra
STA 215 Introductory Applied Statistics*

6. Business cognate.
- ACC 212 Principles of Financial Accounting
 - ACC 213 Principles of Managerial Accounting
 - BUS 201 Law and Business
 - MKT 350 Marketing Management

Transfer Students

The Hospitality and Tourism Management program maintains articulation agreements or has established transfer equivalencies with many Michigan community colleges. These options facilitate the transfer of credits for work completed toward an associate degree. Transfer students interested in a major or minor in Hospitality and Tourism Management should contact the department to review their options and develop a plan of study with an advisor. Transfer students do not need to have studied hospitality or tourism in their two-year program to be eligible for a Hospitality and Tourism Management major or minor.

Transfer students should contact the department prior to enrolling in any Hospitality and Tourism Management courses. An advisor will assist with scheduling and ensure that the courses selected are appropriate for the student and meet the program requirements.

Minor Requirements

Students in other majors may minor in Hospitality and Tourism Management by completing a minimum of six HTM courses, including HTM 101, Fundamentals, totaling a minimum of 21 credits, with advisor approval. Interested students should meet with a Hospitality and Tourism Management faculty advisor to establish a specific plan.

Courses of Instruction

HTM 101 Fundamentals. A study of the food service and lodging industries, their structures and predominant systems as components of tourism, and of tourism as a dominant socioeconomic and political force. Four credits. Offered fall and winter semesters.

HTM 112 Food Science and Technology. The application of chemical, physical, safety, and sanitation principles to food preparation, production, and processing. Prerequisite: CHM 102 or permission. (3-0-2). Four credits. Offered winter semester.

HTM 175 International Food and Culture. An exploration of world cultures via an examination of foods, focusing each semester on a different international cuisine. Demonstrates the ways in which intellectual, social, religious, political, economic, and geographic factors affect the development of regional cuisines. Exploration of culture and tastings of the region's food and beverages are included. Fulfills World Perspectives requirement. Prerequisites: None. Three credits. Offered fall semester.

HTM 180 Special Topics. Consideration of selected topics not ordinarily dealt with in other courses. Topics to be determined by faculty interest and student request. Variable credit. Offered on sufficient demand.

HTM 190 Field Preparation. An orientation course preparing Hospitality and Tourism Management majors and those who wish to minor in Hospitality and Tourism Management by means of a cooperative education program for entry into the Hospitality and Tourism Management work environment. This course must be taken prior to the student's registering

*Successful completion of CS 150, STA 215, and HTM 373 satisfies the B.S. degree cognate for all HTM majors.

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for the first field experience. Prerequisite or corequisite: 101. One credit. Offered fall and winter semesters.

HTM 202 International Tourism. Introduction to international tourism focusing on the socio-economic effects of international tourism along with the inherent public-private interaction. International tourism is more than a set of industries, but rather an activity that encompasses human behavior, uses of resources (public and private), and interaction with other people, economies, and environments. Part of Global Change Theme. Prerequisites None, HTM 101 suggested. Three credits. Offered fall semester.

HTM 213 Food Service Systems. An analytical approach to the design, operation, and monitoring of food service systems, with emphasis on operational efficiency, productivity, and profitability. Field trips. Prerequisites: MTH 110, HTM 101, 112 (or concurrence) or permission; CS 150 recommended. Four credits. Offered fall semester.

HTM 222 Lodging Systems. An analytic approach to lodging flows and integrative operations and systems with emphasis on guest services, front office, housekeeping, asset management, and security. Field trips. Prerequisites: ACC 212, HTM 101, or permission; CS 150 recommended. Four credits. Offered winter semester.

HTM 235 The Tourism System. An introduction to tourism as one of the world's largest industries, focusing on tourism's strong links to cultural pursuits, foreign policy initiatives, and economic development. Additional emphasis on tourism's relationship to the economy, specifically the many diverse and different products and services tourism requires from other sectors, both public and private. Prerequisite: 101 or permission. Three credits. Offered winter semester.

HTM 280 Special Topics. Consideration of selected topics not ordinarily dealt with in other courses. Topics to be determined by faculty interest and student request. Variable credit. Offered on sufficient demand.

HTM 290 Field Experience I. A semi-structured and supervised situation in which students receive basic training and directed work experience in selected entry-level positions consistent with their career preference. Emphasis on job competence and performance, professionalism, and work relations. Management instruction in selected basic operational tasks will also be required. Prerequisite: 190 and advisor approval. Two credits. Offered every semester.

HTM 301 Hospitality and Tourism Systems. In-depth analysis of food service, tourism and lodging operations, organizational structures and functional models, systems, and procedures. Emphasis on operational standards and efficiency, productivity and profitability, and service. Required for and limited to articulating students. Permission required. Four credits. Offered fall and winter semesters.

HTM 318 Responsible Beverage Management. A look at the responsibilities and demands made of the contemporary beverage manager and ways to address them. Attention will be given to legal aspects, liability, social concerns, product knowledge, controls and operations, and responsible service. Certification in a recognized server training program will be required. Prerequisites: 213 and 361 or concurrency, with permission. Three credits. Offered fall semester.

HTM 333 Property Management. The care of the hospitality facility with emphasis on preventive maintenance, energy, management systems, security, and sanitation. Prerequisite: 101 or permission. Three credits. Offered fall semester.

HTM 343 Human Resource Management. A study of the relationship among work, human conduct, and human and organizational development fundamental to the service concern. A systems approach to staffing, training, scheduling, evaluating, and accounting for the human element in hospitality operations. Prerequisites: 101 or permission; junior standing. Four credits. Offered fall and winter semesters.

HTM 353 Meeting Planning. A study of the planning, marketing, execution, and follow-up of meetings, conferences, conventions, and package promotions. Prerequisites: MKT 350, HTM 222, or permission. Three credits. Offered winter semester.

HTM 361 Hospitality Law and Legislation. A study of hospitality and travel law with emphasis on current legislative and lobbying activities. Consideration given to societal leverage in influencing and initiating legal and political activity and policy. Prerequisite: BUS 201 or permission; junior standing. Three credits. Offered fall and winter semesters.

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HTM 373 Hospitality Information Analysis. A systematic approach to the gathering and analysis of data from operations. The course is structured to take the student from accounting system basics through the production of a variety of reports and budgets. The emphasis is on the utilization of the data for improved financial and objective-based decision-making. Prerequisites: CS 150, ACC 213, and STA 215; junior standing. Four credits. Offered fall and winter semesters.

HTM 380 Special Topics. Study of significant topics and issues not addressed in other courses. Previous topics have included beverage management, professional development, etiquette, club management, business and industry, food service, etc. Prerequisites: Junior standing; permission. One to four credits. Offered fall and winter semesters.

HTM 390 Field Experience II. A second semi-structured and supervised situation in which students receive further training and directed work experience in selected positions consistent with their career preference. Emphasis on job competence and performance, professionalism and work relations. Management instruction in selected operational tasks will also be required. Prerequisite: 290. Two credits. Offered every semester.

HTM 399 Independent Study. Study of an advanced topic of interest in hospitality and tourism management. Prerequisite: Permission. Variable credit. Offered every semester.

HTM 402 Tourism Planning and Development. Goal-setting and strategic planning for the development of the tourism area. Explores the relationship between goals and the planning techniques needed to implement them. Prerequisites: GPY 309, HTM 235, or permission. Three credits. Offered winter semester.

HTM 452 Hospitality Marketing. Applications of basic marketing principles and strategies to hospitality and leisure services. Discussions will define specific hospitality and tourism market segments and address the various personal and nonpersonal sales and promotional tools available to the manager of an intangible product. Prerequisites: HTM 222 or HTM 213 or HTM Department permission; STA 215; and MKT 350. Three credits. Offered fall and winter semesters.

HTM 480 Critical Issues in HTM. A senior seminar designed to assess critical issues in hospitality and tourism and the impact of current events, trends, and developments on hospitality and tourism administration. Open to senior hospitality and tourism management majors and to others by permission of instructor. Three credits. Offered on demand.

HTM 490 Senior Internship. A structured experience designed to provide management training and career direction in helping students articulate from academia into a management track or staff position in their chosen field. Prerequisites: 290 and 390 or their equivalents; senior standing; permission. Two credits. Offered every semester.

HTM 495 Hospitality Management (Capstone). Capstone class providing a framework to view the discipline, industry, and management from a perspective incorporating the economic, social, cultural, environmental, political, technological, and physical aspects. Emphasis on a broad managerial perspective to critically assess the issues facing the profession. Prerequisite: Completion of the HTM Core through the 300 level; senior standing. Three credits. Offered fall and winter semesters.

HTM 499 Independent Research. Supervised research in hospitality and tourism management for junior and senior majors. Prerequisite: Permission. Variable credit. Offered every semester.

International Relations Program (IR)

Coordinator: King. Executive Committee: Diven (political science), Goode (history), King (political science), Singh (economics).

Worldwide mass communications, technological advances, and burgeoning international trade have increased the frequency and complexity of international relations. As the interaction among nations increases, the potential for international cooperation and conflict expands as well. The international relations program at Grand Valley provides students with the opportunity to gain a broad base of knowledge about the history, economics, and politics of interaction

International Relations

among nation-states. Students in the international relations program examine the sources of tension that create conflict among nations, study interdependence among nations, and learn about the ways in which international management and diplomacy can promote international cooperation.

International Relations is an interdisciplinary program that includes coursework in political science, history, economics, marketing, geography, and foreign language. As part of their studies, students are encouraged to become proficient in a foreign language and to study abroad at one of the universities with which GVSU has an institutional exchange agreement. The capstone course in international relations allows students to bring together the threads of knowledge they have gathered in interdisciplinary coursework and gives them a chance to pursue independent research on an international relations topic of their choice.

Career Opportunities

Career opportunities in the field of international relations have expanded as interaction among nations has increased. Many international relations majors will pursue careers with multinational corporations in the fields of international marketing, finance, and business. International careers in the public sector include opportunities in the Department of State, the Department of Defense, the Department of Commerce, and the Central Intelligence Agency, among others. Some graduates of the international relations program will pursue careers with international civic and nonprofit organizations. In addition, there is an increasing demand for professionals with international relations backgrounds in the fields of journalism, teaching, information technology, and research.

Study Abroad

Students in the international relations program are strongly encouraged to take advantage of opportunities to study abroad. GVSU has institutional agreements with East China University of Science and Technology, China; Eastern Institute of Technology, Hawke's Bay, New Zealand; ESSCA Business School, Angers, France; Groupe ESC Grenoble, France; Kingston University, England; International Christian University, Japan; the Japan Center for Michigan Universities, Japan; St. Petersburg State University, Russia; Universidad De Las Americas, Mexico; University of Economics, Poland; University of Finance and Economics, Russia; University of Sarajevo, Bosnia; University of Stuttgart, Germany; and the Uppsala University, Sweden. Opportunities for exchange are available with all institutions.

In addition, students may enroll in many other universities worldwide for academic credit. Appropriate courses taken abroad can be credited toward the requirements for the major or minor. Students are encouraged to study the language and culture of a select geographic area as a component of their degree program. Students are strongly advised to consult with the Padnos International Center and the international relations program coordinator before enrolling in study abroad programs.

Requirements for Major and Minor Programs

Major Program. The international relations major leads to a B.A. degree. Students must demonstrate third-semester proficiency in a foreign language and are strongly encouraged to undertake additional language study.

Students majoring in international relations are required to complete at least 36 credit hours, including Economics 210 and 211, Geography 235, History 317,

International Relations

and Political Science 211 and 312. Majors are also required to complete the capstone course in international relations (IR 495). The remaining 15 hours should be selected from the list of international relations course electives below and must include a minimum of nine hours at the 300 level or above. However, students should not regard this list as definitive. With the permission of the program coordinator, courses not included in this list can be used as electives for the international relations major. In selecting international relations electives, students must choose at least one course each from economics and marketing, history and foreign culture, and political science. These choices should be made in consultation with an advisor.

Minor Program. Students minoring in international relations are required to complete at least 21 credit hours in the program, including Political Science 211, either History 317 or Political Science 312, and at least one course each in economics, history, and political science.

International Relations Major Requirements

ECO 210 Introductory Macroeconomics
ECO 211 Introductory Microeconomics
GPY 235 World Regional Geography
PLS 211 International Relations
PLS 312 U.S. Foreign Policy
HST 317 History of American Foreign Relations
IR 495 Seminar in International Relations (Capstone)

International Relations Course Electives

Economics and Management Courses

ECO 349 Emerging Markets Issues
ECO 365 Comparative Economic Systems
ECO 369 International Economic Issues
FIN 429 International Financial Management
MGT 466 International Management and Multinational Corporations
MKT 359 Multinational Marketing

History and Foreign Culture Courses

GPY 350 Geography of Russia and Its Neighbors
GPY 351 Geography of Africa
GPY 352 Geography of Latin America
HST 210 Empire, Culture, and Conflict
HST 331 Modern Latin America
HST 337 The Age of Islamic Empire
HST 338 Modern Middle East
HST 385 Europe 1900–1945
HST 390 Soviet History
LAS 374 Revolution in the Americas

Political Science Courses

PLS 212 Great Decisions
PLS 221 Government and Politics of Western Europe
PLS 282 Government and Politics of Russia and Eastern Europe
PLS 283 Government and Politics of China and Japan
PLS 313 International Organization
PLS 314 International Law
PLS 315 International Political Economy
PLS 327 Politics of Developing Countries

International Relations Courses

IR 380 Special Topics
IR 399 Independent Readings
IR 499 Independent Research

Courses of Instruction

IR 380 Special Topics. Examination of topics not ordinarily dealt with in other courses. Topics will be determined by faculty interest and student request. Consult class schedule for specific topics. IR 380 can be repeated for credit when the topic differs. Variable credit. Offered on sufficient demand.

IR 399 Independent Readings. Independent readings on a selected topic of particular interest to the student. Existing courses are not ordinarily offered as independent study. IR 399 requires a literature review of the reading required for the course. Prerequisite: Approval of instructor before registration. One to three credits. Offered fall and winter semesters.

IR 495 Seminar in International Relations (Capstone). Interdisciplinary exploration of a major theme or current topic in international relations. Seminars and independent research will help students identify research questions and generate hypotheses relevant to this theme. Prerequisites: Senior standing with a major in international relations or consent of the instructor. Three credits. Offered winter semester.

IR 499 Independent Research. Independent study and research into an area of mutual interest to the student and faculty member. IR 499 culminates in a research paper on the approved topic. Prerequisite: Approval of instructor before registration. One to three credits. Offered fall and winter semesters.

Latin

See the Classics section of this catalog.

Latin American Studies Minor (LAS)

Coordinator: Welch. Professors: Neal, O'Connor, Travis; Associate Professors: Fernandez-Levin, Guevara, Hull, Luttenton, Nochera, Perrine, Poitras, Pozzi, Rhoads, Rodriguez-Charbonier, C. Sanchez, Welch; Assistant Professors: Alvarez, Buckridge, J. Joseph, R. King, Lamb, Malaret, Menon, Shupe, Watts, Weber.

Knowledge of Latin America and its people, including those in the United States, is an essential part of a liberal education today. Not only is the Latino population of West Michigan growing rapidly but Latinos will soon constitute the most populous ethnic group in the United States. In the meantime, U.S. economic, political, and cultural relations with our Latin America neighbors—from Mexico and the Caribbean to Central and South America—continue to grow in importance. Students in a wide variety of majors and professional programs can benefit from studying Latin America: the biology major who wishes to work on rainforest ecology, the business major who plans to work in international trade, the education or health sciences student who expects to work in almost any U.S. city, or the literature major who plans a graduate degree in Spanish or comparative literature. In fact, the Latin American Studies Program is for any traditional or continuing student who simply wants to learn more about the fascinating and diverse cultures of Latin America.

The Latin American Studies Program encourages student participation with Latin American and international student organizations on campus, the West Michigan

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Latino community and its institutions, and groups dealing with international relations such as the Institute for Global Education and the World Affairs Council. Students are also welcomed to participate on the Latin American Studies executive and advisory committees and are encouraged to take part in faculty and student-directed research projects. Finally, minors are urged to study abroad, either in Grand Valley's summer programs in Mexico or Central America or in other appropriate programs in Latin America.

A sister university agreement with the Universidad de las Americas in Puebla, Mexico, provides Grand Valley students and faculty with opportunities for prolonged study abroad and opens the door to an exchange with Mexican students and faculty. New agreements with institutions in the Caribbean and South America are constantly being pursued. Consult the Padnos International Center or the LAS Coordinator for information on other study abroad opportunities in Latin America.

Students minoring in Latin American Studies are required to complete 21 credit hours. No more than two courses from any department other than LAS can be counted toward the minor. There is no limit on the courses designated Latin American Studies (LAS) that may apply to the minor. (Students majoring in Spanish and minoring in Latin American Studies should check with their major advisor and with the coordinator of LAS before attempting to double-count courses for the major and minor.)

All minors will be required to complete three core courses:

LAS 210 Exploring Latin America
LAS 374 Revolution in the Americas
SPA 202 Intermediate Spanish (or higher)

Note: Students who enter the university competent in Spanish at the 202 level or higher will take one extra course from the list below. Those with fourth-semester or higher competence in Portuguese may substitute Portuguese for the Spanish requirement but will likewise take one extra course from the list below.

In addition to the above required courses, students will choose four courses from the following list:

AAA 202 The African Diaspora
ANT 355 On the Move: Migration in the Americas
ANT 360 Ethnology of Meso-America
BIO 310 Biodiversity in the Americas
ENG 378 Contemporary Latin American Literature
ENG 385 Writing and Revolution in the Americas
GPY 352 Geography of Latin America
GEO 350 Geology's Great Debate: A New World View
HST 315 Latinos: The Forging of Ethnic Identities
HST 330 Early Latin America
HST 331 Modern Latin America
HST 334 The Making of the West Indies
HST 372 From Slavery to Freedom
HST 632 History of Brazil
LAS 378 Contemporary Latin American Literature
LAS 380 Topics in Latin American Studies
LAS 399 Independent Study
LAS 475 Latinos in West Michigan
LAS 490 Latin American Studies Internship
SPA 311 Latin American Civilization and Culture
SPA 312 U.S. Latino/a Civilization and Culture

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SPA 324 Spanish American Novel in Translation
SPA 329 The Sociolinguistics of the Spanish-Speaking World
SPA 410 Spanish American Narrative
SPA 430 U.S. Latino/a Literature
SPA 460 Women Authors
SS 211 Peoples of the World

One course (excluding Spanish below 202) from the GVSU Study Abroad Programs in Guadalajara, Mexico, or Belize or from another study abroad program in Latin America approved by the coordinator of the Latin American Studies Program.

Students may choose to take only three courses from the above list and to take a fourth course from a list of comparative courses approved by the LAS program. To be approved, such comparative courses must have a minimum of 25 percent of their content devoted to Latin America. A list of approved courses is available each semester from the coordinator of Latin American Studies and from other Latin American Studies faculty. Below are some examples of comparative courses that often include adequate Latin American content.

Note: The following courses may not always deal with Latin America. Before registering for Latin American Studies minor credit, consult the instructor or the coordinator of LAS.

ANT 330 Ethnology of Selected World Areas
BIO 417 International Field Biology
ENG 203 World Literature
ENG 616 Third World Literature
GPY 235 World Regional Geography
HST 210 Empire, Culture, and Conflict
HST 633 Issues in Third World History
SS 270 Gender and Family in Third World Development

For more information, check our Web page at www4.gvsu.edu/las

Courses of Instruction

LAS 210 Exploring Latin America. The indigenous, European, and African cultures forming Latin American and Caribbean civilization are examined through the multidisciplinary lenses of the humanities, the social sciences, and the sciences. Attention is also given to U.S. Latino cultures and to the interrelationship between Latin America and the United States. Fulfills World Perspective requirement. Three credits. Offered fall semester.

LAS 374 Revolution in the Americas. Men and women make history, sometimes through gradual, passive means and sometimes through sudden, active means. In the Americas, both categories of history-making have been common. This course explores international relations in the hemisphere by comparing revolutionary and evolutionary processes of change from Tierra del Fuego to the Northwest Territories. Cross-listed with HST 374. Prerequisite: 210 or junior standing. Three credits. Offered winter semesters.

LAS 378 Contemporary Latin American Literature. A survey of Latin American literature of the past three decades, in English translation, taking in a variety of nations, regions, and cultures, including Afro-Latin and indigenous voices. Genres to be studied include the novel, the short story, poetry, dramas, testimonial narrative, speeches, folklore, and film. Prerequisite: 210 or junior standing. Three credits. Offered winter semester, even-numbered years. Dual listed with ENG 378 and SPA 378.

LAS 380 Special Topics in Latin American Studies. Consideration of selected topics not ordinarily dealt with in the regular curriculum. Topics will be determined by faculty interest and student request and announced in the class schedule. Can be repeated for credit when the topic differs. Variable credit. Offered winter semester of even-numbered years.

LAS 399 Independent Studies. Before registering, students must arrange for supervision by a Latin American Studies faculty member and submit a contract (available from the LAS coordinator) specifying the topic and scope of the study. Ordinarily no more than three

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credits of LAS 399 may count toward the minor. Instructor approval prior to registration. One to three credits. Offered every semester.

LAS 475 Latinos in West Michigan. Surveys the dynamic yet little-known world of Latinos in the region and guides students through a research project documenting their experiences, achievements, and challenges. Students learn and apply field research and interviewing skills to produce and present original reports on local Latino individuals and issues. Prerequisite: 210 or junior standing. Three credits. Offered fall semester of odd-numbered years.

LAS 490 Latin American Studies Internship. Supervised work experience in a Latin American Studies-related field, initiated by the student, who must prepare a proposal in consultation with a faculty advisor and a worksite supervisor. The student will submit a final report and both the worksite supervisor and the faculty advisor will evaluate the internship. Prerequisites: Nine hours, LAS-related coursework, and permission of the program coordinator.

Legal Studies (LS)

Director: Houston. Associate Professor: McKenzie; Assistant Professor: Mullendore.

The School of Criminal Justice administers the major in legal studies. The legal studies major is designed to prepare students for careers as legal assistants. A legal assistant, also known as a paralegal, performs substantive legal work under the supervision of a licensed attorney. Legal assistants work in law firms, corporations, or government agencies. Some legal studies courses may be applied to a criminal justice major. Check with your advisor for possible selections.

Degree Requirements

Students seeking a bachelor's degree in legal studies must complete the general education requirements of the university. Students must also meet the degree cognate requirements of the School of Criminal Justice, i.e., third-semester proficiency in a foreign language to earn a B.A., or STA 215, SS 300, and CJ 400 to earn a B.S.

Although most courses taken at other colleges and universities may be accepted for full credit, only a limited number will be counted toward the major. Students should take at least two-thirds of the credits constituting their major at Grand Valley State University.

Major Program Requirements

A minimum of 36 credit hours is required. All majors must take the following core courses: LS 301, 420, 422, 424, 426, 428, 490, and 495 (24 hours). In addition, all majors must take ACC 212 and three of the following courses: CS 150, CS 233, CS 238, ENG 350, LS 370, or either PLS 306 or CJ 305.

Minor Program Requirements

Minors must complete 21 credit hours, including LS 301, 420, 422, 424, 426, 428, and 490 or 495.

Courses of Instruction

LS 301 Introduction to Law. Introduction to the major substantive areas of American law, including agency, business organizations, contracts, real and personal property, torts, wills, and estate administration. Three credits. Offered fall and winter semesters.

LS/WGS 370 Women and the Law. An overview of the American law's treatment of constitutional limitations on sex discrimination in law and efforts to end discrimination; marriage and divorce; relationships outside of marriage; reproductive rights and biological factors

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impacting on these rights; violence against women; and employment discrimination focusing on gender-based influences. Part of Gender, Society, and Culture theme. Three credits. Offered winter semester.

LS 380 Special Topics in Legal Studies. Focuses on topics not ordinarily dealt with in other courses. Topics will be determined by faculty interest and student request. Although the course can be repeated, no more than six credits can be applied to a legal studies major. Three credits. Offered on demand.

LS 420 Property and Probate Law. A study of property and probate law through the examination of key concepts, case law, statutory law, and documents. Fact-gathering techniques and drafting considerations will be highlighted. Topics include real estate, personal property, environmental law, wills, and probate. Prerequisites: 301 (may be taken concurrently) or permission of instructor. Three credits. Offered fall semester.

LS 422 Commercial Law. A study of commercial law through the examination of key concepts, case law, statutory law, and documents. Fact-gathering techniques and drafting considerations will be highlighted. Topics include partnerships, corporations, employment law, bankruptcy, and consumer protection law. Prerequisites: 301 (may be taken concurrently) or permission of instructor. Three credits. Offered winter semester.

LS 424 Legal Research and Writing. Introduction to legal research methods, including state and federal reported cases, digests, annotated codes, state and federal administrative regulations, and computerized legal research; introduction to the writing of case briefs and memoranda. Prerequisites: 301 (may be taken concurrently) or permission of instructor. Three credits. Offered winter semester.

LS 426 Civil Litigation. Introduction to civil litigation. Particular attention paid to jurisdiction, venue, service of process, pleading, motions, and the discovery process. Prerequisites: 301 (may be taken concurrently) or permission of instructor. Three credits. Offered fall semester.

LS 428 Factual Investigation. An examination of factual investigation techniques used in the practice of law. Topics include obtaining and reviewing government and private records, databases, locating witnesses, interviewing, discovery, and privilege considerations. Prerequisites: 301 (may be taken concurrently) or permission of instructor. Three credits. Offered fall semester.

LS 490 Legal Studies Internship. Internship in a government, private, or corporate law office under individual faculty supervision to allow students to apply academic knowledge to professional experience. Prerequisites: 301, senior status, permission of instructor attained through completion of an application form submitted during the semester before the internship, and LS 424 and 426 (taken before or concurrently with 490). Three credits. Offered each semester.

LS 495 Legal Thought (Capstone). Explores the philosophy, politics, and ethics of law and legal reasoning. Study of the major schools of thought that have informed American jurisprudence and its modern critiques. Familiarity with the fundamentals of legal reasoning and the structure and operation of the legal system will be assumed. Prerequisites: 301, senior status in the program, and LS 424 (may be taken concurrently). Three credits. Offered winter semester.

Liberal Studies (LIB)

Coordinator: Judy Whipps.

Liberal studies provides a context in which the individual educational needs of each student can be addressed and a rich intellectual heritage can be engaged, while a variety of interdisciplinary and/or career-relevant specializations are pursued. The program stresses dialogue, a dialogue that includes a variety of disciplines and scholars who have helped shape our understanding of the world, a dialogue that helps us to understand ourselves, and a dialogue that helps us to understand each other.

Liberal studies emphases do not need to be career related, but liberal education and career education do not conflict. An education that emphasizes the ability to

Liberal Studies

think critically and to synthesize divergent points of view is the best kind of career preparation. It is career preparation informed by an understanding of context, and of historic, cross-cultural, and ethical perspectives. It is career preparation that promotes flexibility, which is critically important as career shifts become more and more typical in our working lives.

The vitality of the Liberal Studies Program arises from a vigorous dialogue between what individuals want to do and think they need to do on one hand, and a tradition of inquiry and questioning on the other. This is the conversational relationship out of which creative work occurs. It is from this same relationship that we emerge as alert and effective human beings.

The liberal studies major is distinctive in that it is centered on liberal education as a developmental practice that helps us become our genuine selves. It is distinctive in integrating that personal pursuit with our pursuit of career goals.

Overview of the Liberal Studies Major

The Liberal Studies major (not including the degrees cognate courses) consists of 44 credits, distributed as follows:

The Core (12 credits)

The Emphasis (18 credits)

Electives (9 credits)

Practicum (2 or more credits)

Senior Seminar (3 credits)

The Core (12 credits)

All majors are required to take four core courses that introduce them to the basic principles of liberal arts education: Students begin with LIB 100, a course on educational philosophy, in which they examine the implications of different visions of what education can and should be for themselves and for their society. PHI 102 is an ethics course through which to engage questions of value and judgment. For their third core course students take either COM 202 or COM 203 to develop skills of interpretation and rhetoric. They also take LIB 400, a course in which they study the life and work of a visionary figure.

The Emphasis (18 credits, at least 15 upper divisional)

Liberal studies students work in consultation with their advisors to develop an individualized emphasis area of six or more courses drawn from the whole GVSU curriculum. Typically emphasis areas are organized around either a major issue in human life or an interdisciplinary area of study. You may consider taking all of the courses in an upper-level theme for your emphasis (for example, Ethics; The Human Journey; or Gender, Society, and Culture. Other recent emphasis areas in the program include Environmental Studies, Social Relations, Gender Studies, American Studies, Business and Society, Religious Studies, Peace Studies, Oppression and Human Rights, Scientific Culture and the Humanities, Cultural Studies, Business and Economics, Humanities, Technical and Scientific Communication, Political Economy, The Self and Its Commitments, Childhood Development and Literature, and Management and Society.

Liberal Studies Electives (nine credits)

The program also emphasizes the importance of integration in education, of seeing how things fit together, including the integration of liberal and career

Liberal Studies

studies. To these ends, all majors are required to select a body of at least three elective courses. Students may select their electives from across the entire GVSU curriculum. The Liberal Studies Committee recommends that younger students in particular consider structuring their electives as a career component to their study plan, including areas such as business, computer science, and international study.

Senior Seminar and Practicum (5 or more credits)

The required practicum and Senior Seminar provide opportunities for students to apply theoretical knowledge to life issues outside the classroom and to synthesize the components of their major. LIB 491, the Practicum, allows students to put into practice their ideas and explore the applications of their Emphases. LIB 495, the senior seminar, or capstone, asks students completing their programs to prepare and share their senior theses in which they reconsider the central issues they have engaged in the major.

Degree Cognates

Liberal studies majors may earn either a B.A. degree (by demonstrating third-semester proficiency in a foreign language) or a B.S. degree (by successfully completing STA 215, SS 300, and PHI 103).

Synoptic Lecture

Each year, the program sponsors a Synoptic lecturer, providing as a model someone who has successfully integrated life and vocation. LIB 480, a one-credit reading course, which may be repeated each year, allows majors to study the ideas of the Synoptic lecturer. Lecturers have included Francis Moore Lappe, John McDermott, Bayard Rustin, Tillie Olson, Michael Harrington, Martin E. Marty, and Elizabeth Kamarck Minnich.

Advising

The program coordinator works with prospective majors to choose an advisor who will work with them during their years in the program to develop coherent study plans, to choose effectively from among General Education offerings, and to consider career paths or graduate schools.

Admission to the Liberal Studies Major and Submission of the Study Plan

To be admitted to the major, students must, with the advisor, construct and submit their study plans. These consist of listings of courses selected for emphasis area and electives, and a narrative statement that describes the student's course of study, its coherence, and its significance. Study plans are submitted to the program coordinator for review and approval. Changes in study plans must be made in consultation with advisors and approved by the program coordinator.

Courses of Instruction

LIB 100 Introduction to Liberal Studies. A study of the nature and importance of liberal education, including the education of the adult free citizen, through extensive reading classical and modern texts and through examination of the contemporary state of liberal education in the university and society. Fulfills Philosophy and Literature Foundation. Three credits. Offered every semester.

LIB 268 Wine: History, Anthropology, Appreciation. Introduces the history and geography of wine-producing regions, the role of wine in Western cultures, cultural factors affecting patterns of wine consumption in Europe and America, some of the technicalities of wine

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production, and the discipline of wine tasting. Prerequisite: Junior standing or permission of instructor. Three credits.

LIB 310 Creativity. An examination of human creativity and the nature of the creative process. Characteristics of the creative process in artistic and scientific endeavors. Three credits. Offered every other year. Part of Creativity Theme.

LIB 311 Meaning: The Humanities Resource. Introduction to several humanities areas, such as literature, philosophy, and art, as resources for understanding the nature of human values and the process by which we perceive meaning in our lives. Readings include novels and philosophical writings as well as material dealing with art and its relationship to meaning. Three credits. Offered every other year.

LIB 314 Life Journey. A study engaging the perspectives of the humanities on life development from childhood to old age as found in literature and other expressions of various cultures such as mythology, philosophy, art, film, and music. Part of Human Journey theme. Three credits. Offered every semester.

LIB 320 Social Autobiography in the U.S. Civil Rights Movement. An inquiry, through reading and writing, into the dynamics of cultural change and personal development in the U.S. Civil Rights Movement through the genres of biography and social autobiography. Three credits. Offered every other year.

LIB 325 Understanding the Gay Life Cycle. A study of the gay life cycle focusing on issues of identity, relationships, and society. Issues are examined through the use of literature, movies, and guest speakers. Students become aware of similarities and differences between homosexual and heterosexual lifestyles. Part of Gender and Identity theme. Three credits. Offered every semester.

LIB 330 The Idea of Nature. An historical and cross-cultural examination of how nature has been interpreted by science, philosophy, religion, literature, and art. Part of Earth and Environment theme. Three credits. Offered once a year, winter semester.

LIB 331 Person and Profession. A study in various professions of the relationship between the person and her/his working life as portrayed in literature, film, art, and social analysis, with special attention to the growth of the idea of profession and professionalism among other concepts of work. Three credits. Offered every other year.

LIB 335 Scriptures as Literature. A comparative study of Scriptures as literary masterpieces that shape and influence their respective cultural expressions and literary traditions. Readings include Scriptures from major world religions such as *The Dhammapada*, *The Lotus Sutra*, *The Rig Veda*, *Upanishad*, *The Bible*, *The Koran*, and *Tao Te Ching*. Part of Religion theme. Three credits. Offered fall semester.

LIB 340 Utopias: Ideal Worlds. Is freedom really life without external social constraints, or is it unattainable unless we accept some amount of societal control over our actions? This course reviews several utopias and dystopias—some real, some fictional—to probe the proper balance between freedom and both formal and informal means of social control. Part of Freedom and Social Control theme. Three credits. Offered fall semester.

LIB 345 War in the Nuclear Age. Interdisciplinary survey of the history and culture of the nuclear age. Exploration of how the development of nuclear weapons and the possibility of nuclear war have influenced relations between nations, shaped the U.S. domestic agenda, and profoundly transformed the lives of individuals. Part of Making War and Peace theme. Three credits. Offered fall semester.

LIB 350 The Immigrant Experience in the U.S. This study of immigrant groups in the United States will focus on the marginalized experience of people who have moved from their “home” cultures, how they have adapted to the new world, and how this experience has helped shape U.S. culture. Emphasis on the fine arts, literature, biography, film, history, sociology. Concentration on at least two cultures, one non-European. Part of Perspectives from the Outside theme. Fulfills U.S. Diversity requirement. Offered fall semester.

LIB 373 American Society and Mass Culture. Interdisciplinary approach to how mediated mass culture, including film, television, and popular music, create meaning for people in contemporary American society. Emphasis on the interactive relationship between the mass audience and mass culture. Part of Society and the Media theme. Three credits. Offered every year.

LIB 380 Topics in Liberal Studies. A variable topics course emphasizing the practice of liberal studies in relation to a contemporary problem, issue, or theme. Three credits. May be repeated for credit.

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LIB 399 Independent Reading. A scholarly or creative project initiated by the student who has a special interest in a subject not available in the current curriculum. Student, faculty, and advisors agree on the scope of the study, its components, and methods of evaluation. Variable credit. Offered every semester.

LIB 400 Visionary Thinkers. A variable topics course that focuses on the life and work of a significant contributor to our culture. Figures in the past have included Aristotle, George Orwell, Hannah Arendt, Jean-Paul Sartre, Henry Thoreau, Enrico Fermi, Virginia Woolf, Martin Luther King, Jr., and Richard Feynman. Three credits. May be repeated for credit. Offered once a year.

LIB 480 Annual Synoptic Lecture Series. Features a person who has done significant work in several areas and whose life and career we can usefully study. Students meet in discussion groups before and after lecturer's visit. One credit. May be repeated for credit. Offered winter semester.

LIB 490 Internship. A supervised work experience through which students can relate liberal studies principles, academic work, and practice. Student, faculty, and advisors agree on the scope of the study, its components, and methods of evaluation. Prerequisite: Senior standing and a 3.0 GPA in the major. Variable credit. Offered every semester.

LIB 491 Practicum. Three or more hours a week of applying liberal studies principles in a public or community setting. This might take the form of a case study, field involvement, or conference attendance and should result in a statement evaluating the theory and practice of the liberal studies. Variable credit. Offered every semester.

LIB 495 Senior Seminar (Capstone). Students will contrast classical and contemporary statements on liberal education in relation to the principles and core courses on which the program rests. Students will develop and present their senior theses. Three credits. Offered winter semester.

LIB 499 Independent Research. Independent research and investigation from an interdisciplinary perspective. Variable credit. Offered every semester.

Mathematics (MTH)

Chair: Schlicker. Professors: Arendsen, Beckmann, Champion, Kindschi, Pratt, Sundstrom, VanderJagt; Associate Professors: Aboufadel, Austin, Fishback, Gardner, Haidar, Klein, Novotny, Schlicker, Shroyer; Assistant Professors: Billings, Boelkins, Coffee, Dickinson, Gavlas, Golden, Klingler, Palmer, Rivers, Sorensen, Tefera, C. Wells, P. Wells; Instructors: Alexander, Friar, Mays; Visiting Assistant Professor: Brown; Math Lab Director: Rivers.

Degrees offered: B.S., B.A., in mathematics; minors in mathematics. Teaching certification in both major (elementary and secondary) and minor (elementary and secondary). The statistics major and minor are described in the Statistics section of the catalog.

The mathematics major is offered within the Department of Mathematics. Options within the major lead to mathematics careers in industry, in elementary and secondary teaching, and as preparation for graduate school. It is strongly recommended that all students interested in mathematics as a major discuss career plans with one or more members of the department and obtain an advisor in the department as soon as possible.

Career Opportunities

Are you challenged by problems? Do you enjoy working on their solutions? If so, you have a wide variety of career opportunities after completing the appropriate mathematical background. Some of these opportunities require only a college degree in mathematics while others require additional work in another discipline

Mathematics

or graduate training. A degree in mathematics opens many doors to careers in business, industry, and education.

Requirements for a Major in Mathematics

Students planning a major in mathematics must complete the following:

1. University degree requirements as identified in the General Academic Regulations section of the catalog.

2. Mathematics core

All mathematics majors must complete the following courses

MTH 201 Calculus and Analytic Geometry I*	5 credits
MTH 202 Calculus and Analytic Geometry II*	4 credits
MTH 210 Communicating in Mathematics	3 credits
MTH 227 Linear Algebra I	3 credits
MTH 310 Modern Algebra I	3 credits
MTH 495 Nature of Modern Mathematics** or MTH 496 Senior Thesis**	3 credits

All mathematics majors must also complete the requirements listed in (3), (4), or (5) below.

3. In addition to the core, students who are not seeking teacher certification must complete the following requirements:

- a. Required mathematics courses:

MTH 203 Calculus and Analytic Geometry III	4 credits
MTH 408 Advanced Calculus I	3 credits

- b. One of the following upper-level two-course sequences:

MTH 310 and MTH 410 (Modern Algebra)
MTH 408 and MTH 409 (Advanced Calculus)
MTH 341 and MTH 431 (Geometry)
MTH 300 and MTH 400 (Applied Analysis)
MTH 345 and MTH 360 (Discrete Mathematics and Applications)

- c. Additional course(s) from the following list for a total of 37 credits in mathematics: 300, 304, 327, 341, 345, 360, 400, 402, 405, 409, 410, 431, 441, 465

- d. Cognate Requirements

STA 312*, CS 162, and one course from the following: PHY 230, ECO 480, GEO 440, GEO 470, STA 314, STA 316, STA 412, SS 300, BIO 355, BIO 375, or CHM 351.

Majors who plan to do graduate work in mathematics are encouraged to (1) take as many upper-division mathematics courses from the courses listed above as possible; (2) complete at least one of the two-course upper-level sequences in Modern Algebra or Advanced Calculus; (3) consult with their advisor about other courses that might be appropriate for their interests and about procedures for applying to graduate school; and (4) complete a B.A. degree by completing the third semester of French, German, or Russian.

*Completion of MTH 201, 202, and STA 312 satisfies the B.S. degree cognate for all mathematics majors. Students completing a B.A. degree must complete these courses plus the foreign language requirement for a B.A.

**Satisfies capstone course requirement for a mathematics major.

Mathematics

4. Elementary Certification Emphasis

A minimum GPA of 2.8 is required in the major for recommendation for teacher certification. In addition to the core, students who are seeking a mathematics major with elementary certification must complete the following requirements:

a. Required Mathematics Courses

MTH 321 Number Systems and Structures	3 credits
MTH 322 Geometry for Elementary Teachers	3 credits
MTH 323 Probability and Statistics for Elementary Teachers	3 credits
MTH 341 Euclidean Geometry	3 credits
MTH 345 Discrete Mathematics	3 credits

b. Cognate Requirements

STA 312* and one course from the following: PHY 220, PHY 230, CS 160, CS 162, ECO 480, GEO 440, GEO 470, STA 314, STA 316, STA 412, SS 300, BIO 355, BIO 375, or CHM 351.

c. School of Education requirements for elementary certification must also be met.

To be approved for student teaching, students must complete at least 24 credit hours in the major, including MTH 210, and at least two of MTH 321, 322, or 323.

5. Secondary Certification Emphasis

A minimum GPA of 2.8 is required in the major for recommendation for teacher certification. In addition to the core, students who are seeking a mathematics major with secondary certification must complete the following requirements:

a. Required Mathematics Courses

MTH 203 Calculus and Analytic Geometry III	4 credits
MTH 229 Mathematical Activities for Secondary Teachers	3 credits
MTH 341 Euclidean Geometry	3 credits
MTH 345 Discrete Mathematics	3 credits
MTH 410 Modern Algebra II or MTH 431 Non-Euclidean Geometry	3 credits

b. One additional course from the following: 300, 304, 327, 360, 400, 402, 405, 408, 409, 410, 431, 441, 465.

c. Cognate Requirements

STA 312* and one course from the following: PHY 230, CS 162, ECO 480, GEO 440, GEO 470, STA 314, STA 316, STA 412, SS 300, BIO 355, BIO 375, or CHM 351

d. School of Education requirements for secondary certification must also be met.

To be approved for student teaching, students must complete at least 24 credit hours in the major, including MTH 210, 229, and 341.

A student who has graduated from another accredited institution with a completed major or minor in mathematics and who now seeks only teaching

*Completion of MTH 201, 202, and STA 312 satisfies the B.S. degree cognate for all mathematics majors. Students completing a B.A. degree must complete these courses plus the foreign language requirement for a B.A.

*Completion of MTH 201, 202, and STA 312 satisfies the B.S. degree cognate for all mathematics majors. Students completing a B.A. degree must complete these courses plus the foreign language requirement for a B.A.

Mathematics

certification in mathematics from Grand Valley must satisfy the following criteria:

- Transfer or complete at GVSU all mathematics and cognate courses required for the certification major or minor.
- A minimum cumulative GPA of 2.8 (on a 4.0 scale) in mathematics courses from the accredited institution.
- Completion of the School of Education requirements for certification.

Requirements for a Minor in Mathematics

Each of the following minors requires a minimum GPA of 2.0 to be approved. Credit in the following classes may not be applied toward the mathematics minor: 110, 122, 123, 125, 131, 221, 225, 302, 307, 321, 322, 323, and STA 215. There is one exception: 321, 322, and 323 may be included in the mathematics minor for elementary teacher certification.

1. Mathematics (not for teacher certification). Minors in mathematics must complete at least 21 hours at the 200 level or above, including

MTH 201 Calculus and Analytic Geometry I
MTH 202 Calculus and Analytic Geometry II
MTH 203 Calculus and Analytic Geometry II or MTH 210 Communicating in Mathematics
MTH 227 Linear Algebra I or MTH 302 Linear Algebra and Differential Equations
At least two additional mathematics or statistics courses at the 300–400 level (other than MTH 302), at least one of which is a mathematics course.

Note: Credit in only one of MTH 302 or MTH 304 may be applied toward this minor.

2. Mathematics (for secondary teacher certification). Minors seeking a mathematics endorsement must complete a minimum of 28 hours with a minimum GPA of 2.8 as required for teacher certification. Courses must include

MTH 201 Calculus and Analytic Geometry I
MTH 202 Calculus and Analytic Geometry II
MTH 210 Communicating in Mathematics
MTH 227 Linear Algebra I
MTH 229 Mathematical Activities for Secondary Teachers
MTH 310 Modern Algebra I
MTH 341 Euclidean Geometry
CS 162 Computer Science I

3. Mathematics for elementary teacher certification. Minors seeking a mathematics endorsement must complete a minimum of 24 hours with a minimum GPA of 2.8 as required for teacher certification. Courses must include

MTH 201 Calculus and Analytic Geometry I
MTH 202 Calculus and Analytic Geometry II
MTH 210 Communicating in Mathematics
MTH 321 Number Systems and Structures
MTH 322 Geometry for Elementary Teachers
MTH 323 Probability and Statistics for Elementary Teachers
One additional approved course.

Internship Program

This program enables juniors and seniors with jobs involving mathematics to earn credits for academic work related to the technical skills required in performing the job. Contact the department for further information.

Placement Test

To ensure that students begin their study of mathematics at the appropriate level, all entering students will be advised to enroll in MTH 097 or 110 or to waive MTH 110 based on the individual's ACT math score and high school units of mathematics earned. If this placement is disputed, the student may take the Mathematics Placement Test once.

If the ACT math score or units of high school mathematics earned is not available, the student must complete the Mathematics Placement Test. This test covers pre-algebra and algebra. A sample is available in the library or on-line in any GVSU computer lab. Students in this category may take the placement test twice but no more than two times.

Students who waive MTH 110 have satisfied the basic skills requirement for mathematics. Those who expect to take additional mathematics courses should contact the Department of Mathematics and Statistics for information about a second placement test to determine whether to enroll in MTH 122, 123, or 201.

Sample Curriculum

The following sample mathematics schedules assume the student is in contact with an advisor for appropriate general education requirements and has a strong mathematics background. Students who do not begin with MTH 201 will need to make appropriate changes.

Mathematics Major not for Teacher Certification

First Year

MTH 201 Calculus and Analytic Geometry I
 MTH 202 Calculus and Analytic Geometry II
 MTH 210 Communicating in Mathematics
 Appropriate courses in general education

Second Year

MTH 203 Calculus and Analytic Geometry III
 MTH 227 Linear Algebra I
 MTH 310 Modern Algebra I
 CS 162 Computer Science I
 Appropriate courses in general education

Third Year

MTH 408 Advanced Calculus I
 MTH 409 Advanced Calculus II
 STA 312 Probability and Statistics
 Cognate course in the major
 Appropriate courses in general education

Fourth Year

Two electives for the major
 Capstone course
 Appropriate courses in general education

Mathematics Major (Secondary Certification Emphasis)

First Year

MTH 201 Calculus and Analytic Geometry I
 MTH 202 Calculus and Analytic Geometry II
 MTH 210 Communicating in Mathematics
 PSY 101 Introductory Psychology
 Appropriate courses in general education

Second Year

MTH 203 Calculus and Analytic Geometry III
 MTH 227 Linear Algebra I
 MTH 229 Mathematical Activities for Secondary Teachers
 MTH 310 Modern Algebra I
 Appropriate courses in general education

Mathematics

Third Year

MTH 341 Euclidean Geometry
MTH 431 Non-Euclidean Geometry
STA 312 Probability and Statistics
Elective in the major
Student Assisting
Cognate course for major
Appropriate courses in general education

Fourth Year

MTH 345 Discrete Mathematics
Capstone course
Student Teaching
Appropriate courses in general education

Mathematics Major (Elementary Certification Emphasis)

First Year

MTH 201 Calculus and Analytic Geometry I
MTH 202 Calculus and Analytic Geometry II
MTH 210 Communicating in Mathematics
PSY 101 Introductory Psychology
Appropriate courses in general education

Second Year

MTH 227 Linear Algebra I
MTH 310 Modern Algebra I
MTH 321 Number Systems and Structures
STA 312 Probability and Statistics
Appropriate courses in general education

Third Year

MTH 322 Geometry for Elementary Teachers
MTH 323 Probability and Statistics for Elementary Teachers
MTH 341 Euclidean Geometry
Student Assisting
Cognate course for major
Appropriate courses in general education

Fourth Year

MTH 345 Discrete Mathematics
Capstone course
Student Teaching
Appropriate courses in general education

Master of Education Degree

A Master of Education degree with a concentration in mathematics along with an emphasis in either Middle School and High School Education or Adult and Higher Education is offered by the School of Education in cooperation with the Department of Mathematics and Statistics. The primary purpose of the degree is to provide middle school and high school teachers with the opportunity to update and expand their knowledge in the field of mathematics, but it also serves those who wish to develop their skills and competencies in working with adult and higher education students.

Admission

Admission to the M.Ed. program requires teaching certification with either a major or minor in mathematics. Students must submit three letters of recommendation, transcripts of all previous coursework, and copies of teaching certificates. Students must have at least a 3.0 cumulative GPA. For additional details, see the School of Education section of this catalog.

Curriculum Overview

The degree program requires completion of at least 33 graduate credits, including 18 credits in education and 15 credits in mathematics. The specific requirements in education may be found in that section of the catalog.

Mathematics

Upon admission to the degree program, the student and an advisor in the Department of Mathematics and Statistics will evaluate all previous coursework taken in mathematics. A curricular plan reflecting the student's needs, interests, and goals will be agreed upon. Each student must complete a minimum of 15 credits in approved graduate courses in mathematics, including

At least one course from

MTH 603 Foundations of Calculus
MTH 620 Modern Algebra
MTH 641 Modern Geometry

At least one course from

MTH 615 Statistics with Probability
MTH 625 Number Theory
MTH 645 Discrete Mathematics

At most three credits from

MTH 685 Mathematics Workshop for Teachers
MTH 686 High School Mathematics Workshop

All students must take MTH 629 Secondary Student Issues.

Courses of Instruction

To fulfill a prerequisite, a student should obtain a grade of C or higher in the prerequisite course.

MTH 097 Elementary Algebra.* Introduction to topics covered in 110. Designed for students who are unprepared for 110. Credits earned for this course do not count toward the number of credits required for graduation. Prerequisite: Assignment through GVSU math placement. Four credits. Offered fall and winter semesters.

MTH 110 Algebra.* A symbolic, numeric, and graphic approach to intermediate algebra with an emphasis on applications. Topics include operations, equations, and inequalities of linear, exponential, logarithmic, quadratic, rational, and radical functions. May not count toward a group science major or minor. Prerequisite: 097 or assignment through GVSU math placement. Four credits. Offered fall, winter, and spring/summer semesters.

MTH 122 College Algebra.* A study of functions and their graphs, including polynomial, rational, radical, exponential, logarithmic, and inverse functions; equations of circles; sequences and series. Emphasis on applications, problem solving, and using graphic, numeric, and symbolic methods to understand and solve equations, inequalities, and systems of nonlinear equations. Prerequisite: 110 or assignment through GVSU math placement. Fulfills Mathematical Sciences Foundation. Three credits. Offered fall and winter semesters.

MTH 123 Trigonometry.* A study of the trigonometric functions with an emphasis on graphing, identities, inverse trigonometric functions, and solving equations. Additional topics include solving triangles, vectors, complex numbers, and polar coordinates. Prerequisite: 110; Corequisite: 122 or satisfactory score on the placement test. Fulfills Mathematical Sciences Foundation. Three credits. Offered fall and winter semesters.

MTH 125 Survey of Calculus. A study of the concepts of calculus for students majoring in business, economics, life sciences, and social sciences. Differentiation and integration of algebraic, exponential, and logarithmic functions. Emphasis on applications. Prerequisite: 110. Fulfills Mathematical Sciences Foundation. Three credits. Offered fall and winter semesters.

MTH 131 Introduction to Mathematics. A survey for non-mathematics majors. Topics selected from inductive and deductive reasoning, geometry, statistics, computers, modeling, number theory, numeration systems, the mathematics of decision-making, and applications. Prerequisite: 110. Fulfills Mathematical Sciences Foundation. Three credits. Offered on sufficient demand.

*See information regarding placement test.

Mathematics

MTH 180 Special Topics. Readings, lecture, discussions, or lab (or any combination) in specific mathematics topics at an introductory or elementary level. Prerequisite: Permission of the instructor. One to four credits. Offered on sufficient demand.

MTH 201 Calculus and Analytic Geometry I.* A development of the fundamental concepts of calculus using graphical, numerical, and analytic methods with algebraic and trigonometric functions of a single variable. Limits and continuity, derivatives, indefinite integrals, definite integrals, and the Fundamental Theorem of Calculus; applications of derivatives and integrals. Prerequisites: 122 and 123. Fulfills Mathematical Sciences Foundation. Five credits. Offered fall and winter semesters.

MTH 202 Calculus and Analytic Geometry II. Continuation of MTH 201 using graphical, numerical, and analytic methods to study exponential, logarithmic, hyperbolic, and inverse trigonometric functions. Indeterminate forms, improper integrals, integration techniques, sequences and series, Taylor polynomials and power series. Prerequisite: 201. Four credits. Offered fall and winter semesters.

MTH 203 Calculus and Analytic Geometry III. Continuation of MTH 202 using graphical, numerical, and analytic methods to study parametric equations, polar coordinates, vector algebra in two and three dimension, differentiation and integration of vector functions of a single variable and scalar functions of several variables. Prerequisite: 202. Four credits. Offered fall and winter semesters.

MTH 210 Communicating in Mathematics. A study of proof techniques used in mathematics. Intensive practice in reading mathematics, expository writing in mathematics, and constructing and writing mathematical proofs. Mathematical content will be selected from the area of logic, set theory, number theory, relations, and functions. Prerequisites: 201 and fulfillment of the composition requirement. Three credits. Offered fall and winter semesters.

MTH 221 Mathematics for Elementary Teachers I. Emphasis is on concepts, relationships, problem solving, reasoning, communicating, and connecting ideas in elementary school mathematics: geometry, measurement, patterns and functions, classification, logic, probability and statistics. MTH 221 and 222 (or MTH 223) required of all elementary teachers applying to the School of Education for winter 1996 or later. Does not count toward a major or minor in mathematics. Prerequisites: 110 and at least sophomore standing. Fulfills Mathematical Sciences Foundation. (3-0-2) Four credits. Offered fall and winter semesters.

MTH 222 Mathematics for Elementary Teachers II. Emphasis is on developing and teaching number and operational concepts, modeling, strategies, relationships, algorithms, and problem solving for elementary school mathematics: whole numbers, fractions, decimals, integers, mental arithmetic, and number theory. Fieldwork to include diagnosing and tutoring elementary children. MTH 221 and 222 (or MTH 223) required of all elementary teachers applying to the School of Education for winter 1996 or later. Prerequisites: 110 and at least sophomore standing; 221 strongly recommended. (2-0-2) Three credits. Offered fall and winter semesters.

MTH 223 Mathematics for Elementary Teachers III. Emphasis is on concepts, relationships, problem solving, reasoning, communicating, and connecting ideas in elementary school mathematics: geometry, measurement, patterns and functions, classification, logic, probability, statistics, whole and rational numbers and their operations, mental arithmetic, and number theory. Fieldwork: diagnosing and tutoring. Equivalent to taking MTH 221 and 222. Prerequisite: 201. (4-0-2) Five credits. Offered winter semester.

MTH 225 Discrete Structures: Computer Science. Logic, sets, counting techniques, cardinality, relations, functions and sequences, matrices, mathematical induction, and computer science applications. Prerequisite: 122 or equivalent. Fulfills Mathematical Sciences Foundation. Three credits. Offered fall and winter semesters.

MTH 227 Linear Algebra I. Vectors in two and three dimensional space, systems of linear equations, matrix algebra, determinants, vectors in n dimensional space, subspace, dependence, bases, linear transformations, eigenvectors and applications. Prerequisite: 202. Three credits. Offered fall and winter semesters.

MTH 229 Mathematical Activities for Secondary Teachers. Problem-solving techniques, motivational ideas, and activities suitable for the secondary classroom. Includes tutorial training and experience in the GVSU Mathematics Laboratory. Prerequisites: 201 and sophomore standing. (2-0-2) Three credits. Offered fall and winter semesters.

MTH 300 Applied Analysis I. Multivariable calculus and vector analysis including the change of variables formula, line integrals, surface integrals, Green's theorem, Stokes' theorem, and

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the divergence theorem. Applications in physics. Prerequisite: 203. Three credits. Offered fall semester of odd-numbered years.

MTH 302 Linear Algebra and Differential Equations. Matrix algebra and determinants. Introduction to the theory of differential equations. Methods of solution (including Laplace transform techniques) of linear equations as well as some special types of nonlinear equations. Applications in physical, biological, and social sciences. Prerequisite: 203. Four credits. Offered winter semester.

MTH 304 Analysis of Differential Equations. Solution methods for first order and second order linear equations (including power series and numerical methods). The linear algebra of linear systems and their solutions. Qualitative analysis of linear and nonlinear systems: phase plane; existence and uniqueness; stability, applications in physical, biological, and social sciences. Prerequisites: 203 and 227. Three credits. Offered winter semester.

MTH 307 Mathematics Teacher Assisting Seminar. Strategies for teaching mathematics in junior and senior high school. Coordinated and taken concurrently with ED 331. Prerequisites: CS 205 or 309, PSY 301 and at least 12 hours in the major, including 229. Three credits. Offered fall and winter semesters.

MTH 310 Modern Algebra. Algebraic properties of the integers and the development of the rational, real, and complex number systems as algebraic structures. Topics from modern algebra include rings, integral domains, fields and ring isomorphisms. Further study of algebraic structures using congruence arithmetic and factorization in the ring of integers and polynomial rings. Prerequisites: 210, and 227 or 225. Three credits. Offered fall and winter semesters.

MTH 321 Number Systems and Structure. Analyze characteristics and properties of number systems, patterns, functions, variables, and algebraic structures. Integrated discussions of children's learning, pedagogy, elementary and middle school curricula, NCTM Standards, and relevant research. Fieldwork includes writing lessons/problems and observing students. Within the mathematics major or minor, applies only to Elementary Certification Emphasis. Prerequisite: 221. (2-0-2) Three credits. Offered winter semester.

MTH 322 Geometry for Elementary Teachers. Analyze characteristics and properties of geometric objects, transformations and representations, visualization and spatial reasoning, measurement systems and tools, dynamic geometric software. Integrated discussion of children's learning, pedagogy, standards, and research for K-8. Fieldwork includes lesson design and implementation. Within the mathematics major or minor, applies only to Elementary Certification Emphasis. Prerequisite: 221. (2-0-2) Three credits. Offered fall semester.

MTH 323 Probability and Statistics for Elementary Teachers. Analyze data and chance. Gathering, organizing, constructing, and interpreting data displays, distributions and models, making inferences and predictions. Integrated discussions of children's learning, pedagogy, curricula, standards, and relevant research for K-8. Fieldwork includes designing/teaching activities and units. Within the mathematics major or minor applies only to Elementary Certification Emphasis. Prerequisite: 221. (2-0-2) Three credits. Offered fall semester.

MTH 325 Discrete Structures: Computer Science 2. Properties of relations, equivalence relations, partial orderings, fundamental concepts of graphs, trees, digraphs, networks, and associated algorithms; computer science applications. Prerequisite: 225. Three credits. Offered fall and winter semesters.

MTH 327 Linear Algebra II. Vector spaces, bases, dimensions, linear transformations, canonical forms, eigen-values and geometric applications. Prerequisites: 202 and 227. Three credits. Offered summer semester.

MTH 341 Euclidean Geometry. Critical analysis of Euclidean geometry from transformational, algebraic, and synthetic perspectives in two and three dimensions. Coordinate and vector geometry relating transformational geometry to linear algebra. Informal study of historical development of Euclidean and non-Euclidean geometries and the questions relating to the parallel postulate to develop understanding of axiomatic systems. Prerequisites: 210 and either 227 or 322. Three credits. Offered fall and winter semesters.

MTH 345 Discrete Mathematics. Basic and advanced counting techniques, including the Pigeonhole Principle and inclusion-exclusion; recurrence relations; partial orderings; graph theory, special paths, planarity, chromatic number, networks, trees, traversals, digraphs. Algorithms and proof techniques. Prerequisite: 210. Three credits. Offered fall and winter semesters.

Mathematics

MTH 360 Operations Research. Mathematical modeling under conditions of certainty and uncertainty. Linear programming, duality, and sensitivity analysis. Markov chains and other stochastic processes. Applications to problems in transportation, scheduling, and resource allocation. Prerequisites: MTH 227, STA 312; (STA 312 may be taken concurrently). Offered fall of even-numbered years.

MTH 380 Special Topics. Readings, lecture, discussions, or lab (or any combination) in specific mathematics topics. Prerequisites dependent upon topic selected. Permission of the instructor required. One to four credits. Offered on sufficient demand.

MTH 399 Independent Readings. Hours, credit, topics, and time to be arranged with individual staff members with approval of the department. One to four credits. Offered fall and winter semesters.

MTH 400 Applied Analysis II. Special topics in applied analysis, including Fourier methods, partial differential equations (heat, wave, and potential equations), calculus of variations, and orthogonal functions. Prerequisites: 300 and either 302 or 304. Three credits. Offered winter semester of even-numbered years.

MTH 402 Complex Variables. Complex arithmetic derivatives and integrals of functions of a complex variable. Infinite series. Residue calculus. Applications to real integration and fluid flows. Prerequisite: 203 and either 227 or 302. Three credits. Offered winter semester of odd-numbered years.

MTH 405 Numerical Analysis. Numerical methods in solving equations of a single variable, matrix algebra, numerical differentiation and integration, numerical solution to differential equations, polynomial approximations, and error estimates. Prerequisites: 227, either 302 or 304, and CS 162. Three credits. Offered fall semester of even-numbered years.

MTH 408 Advanced Calculus I. Techniques of proof, development of the real number system and its topology, a rigorous examination of limits, continuity, differentiation, and integration of functions on one real variable. Also a development of techniques for solving problems not treated in an elementary calculus sequence. Prerequisites: 203 and 210. Three credits. Offered fall semester of odd-numbered years.

MTH 409 Advanced Calculus II. Infinite series, improper integrals, development of the topology of Euclidean n -space and rigorous examination of limits, continuity, and differentiability of functions of several variables. Prerequisites: 227 and 408. Three credits. Offered winter semesters of even-numbered years.

MTH 410 Modern Algebra II. An introduction to groups, including homomorphisms and isomorphisms, Lagrange's Theorem, quotient groups, finite groups, and the Sylow theorems. Additional topics from ring theory including polynomial rings, ideals, and quotient rings. Prerequisite: 310. Three credits. Offered winter semester.

MTH 431 Non-Euclidean Geometry. A critical examination of several non-Euclidean geometries, including finite geometries, hyperbolic geometry, and spherical geometry; their relationships to Euclidean geometry; and the historical and philosophical significance of the development of Non-Euclidean geometries. Prerequisites: 210 and either 341 or permission of the instructor. Three credits. Offered fall semester.

MTH 441 Topology. An introduction to the fundamental concepts of topology. The topology of the real number system and its generalizations to metric spaces and topological spaces. Topics include subspaces, neighborhood spaces, open and closed sets, interior and boundary of sets, continuity and homeomorphisms, connected and locally connected spaces, compact sets and spaces. Prerequisites: 203, 210, and 227. Three credits. Offered winter semester of odd-numbered years.

MTH 465 Automata and Theory of Computation. Introduction to basic mathematical models of computation and the finite representation of infinite objects. Finite automata, regular languages, non-determinism, pushdown automata, context-free languages, Turing machines and variants, halting problems, time complexity of algorithms, and NP-Complete problems. Prerequisites: CS 162 and either 325 or 345. Three credits. Offered fall semester of odd-numbered years.

MTH 480 Special Topics. Readings, lecture, discussions, or lab (or any combination) in specific mathematics topics. Prerequisites dependent upon topic selected. Permission of the instructor required. One to four credits. Offered on sufficient demand.

MTH 490 Mathematics Internship Seminar. Prerequisite: Approval of the department; senior status. Two credits. Offered fall and winter semesters.

Mathematics

MTH 495 The Nature of Modern Mathematics (Capstone). A study of mathematics as a human intellectual endeavor impacting our culture, history, and philosophy. Includes an in-depth investigation, including analyses from the mathematical, historical, and philosophical perspectives, of several significant developments from various fields of mathematics. The specific developments considered will vary from semester to semester. Prerequisites: 210, 227, 310, and at least three other 300–400 level mathematics courses. Three credits. Offered fall and winter semesters.

MTH 496 Senior Thesis (Capstone). A senior thesis is written to demonstrate depth and sophistication in the major. Independent library research is conducted under the supervision of a faculty member. Students produce full-fledged, professional, oral and written presentations on this research. Prerequisite: Open to senior mathematics majors in good standing. Consent of instructor required. Three credits. Offered upon arrangement.

MTH 499 Independent Study and Research. Hours, credit, topics, and time to be arranged with individual staff members with approval of the department. One to four credits. Offered fall and winter semesters.

MTH 603 Foundations of Calculus. Study of the conceptual underpinnings of calculus through situation-based, graphical, and numerical perspectives. The foundations of limit, rate of change, and area under a curve will be explored through examination of the properties of algebraic and transcendental functions. Prerequisite: Certification in secondary mathematics. Three credits.

MTH 615 Statistics with Probability. A blend of theory and applications with emphasis on applications. This calculus-based statistics course includes such topics as probability distributions, sampling, estimation, confidence intervals, hypothesis testing, and regression. A statistical computer package will be used extensively. Prerequisite: Certification in secondary mathematics. Three credits.

MTH 620 Modern Algebra. Study of the complex number system and various subsystems in terms of structural characteristics. Proofs of theorems within algebraic structures, such as groups, rings, integral domains and fields. Development of algebraic transformations, including techniques based on the theory of equations. Applications using technology. Prerequisite: Certification in secondary mathematics. Three credits.

MTH 625 Number Theory. The mathematical treatment of the properties and the structure of the set of integers. Topics include prime numbers, divisibility, number-theoretic functions, the algebra of congruence classes, and applications. Prerequisite: Certification in secondary mathematics. Three credits.

MTH 629 Secondary Student Issues. Research, theories, and recommendations of professional groups provide the foundation for exploring appropriate content, activities, applications and teaching techniques for meeting special needs of secondary students in mathematics. Special attention will be given to mathematics anxiety and avoidance. Prerequisite: Completion of 24 credit hours in program. Three credits.

MTH 641 Modern Geometry. The study of geometry as a mathematical system, explorations of different geometries and their relations to physical space and as sources of mathematical models, investigations of geometrical thinking in problem solving in mathematics and areas outside of mathematics. Computer applications appropriate to school classrooms. Prerequisite: Certification in secondary mathematics. Three credits.

MTH 645 Discrete Mathematics. A study of discrete mathematical structures, including sets, logic, algebraic structures, relations; graphs and digraphs, trees, and networks. Prerequisites: Certification in mathematics. Three credits.

MTH 685 Mathematics Workshop for Teachers. Activities using quantitative reasoning skills, divergent, and convergent thinking to expand the perspectives on the teaching of mathematics in grades 3–9, strategies and tactics for developing mathematical concepts and problem solutions. Prerequisite: Permission of the department. One to three credits. Offered on sufficient demand.

MTH 686 High School Mathematics Workshop. Expands the perspective on the teaching of precalculus secondary mathematics. The workshop will focus on the impact of technology, general approaches to problem solving, and the use of writing in the teaching of mathematics. Prerequisite: Permission of department. One to three credits. Offered on sufficient demand.

Middle East Studies

MTH 699 Directed Readings in Mathematics. Independent supervised reading on selected topics in mathematics. Credits and topics must be prearranged with a faculty member and approved by the department. One to three credits. Offered fall and winter semesters.

Middle East Studies Minor (MES)

Coordinator: Goode. Professors: Brashler, Goode, W. Seeger; Associate Professors: Roos, Webster; Assistant Professors: R. Cole; Visiting Instructor: Al-Mallah.

In the tradition of liberal education at Grand Valley State University, courses in this minor introduce students to the “heritage, problems, and perspectives” of Middle Eastern cultures, thus helping them to better understand their own culture. Michigan, for example, is home to the nation’s largest Arab American community, half Christian, half Muslim, with substantial Jewish congregations.

The Middle East studies program focuses on the area stretching from Morocco in the west to Oman in the east, from Iran and Turkey in the north to Sudan in the south—a region inhabited by more than 350 million people. Not only does the history and art of this region form the basis of Western civilization, but the Middle East today is central to issues of global peace and prosperity. This area incorporates largely Muslim lands, but Christians and Jews have also made important contributions. All receive appropriate attention in this program.

Students come from anthropology, business, communications, geography, history, and international relations—indeed, from all those disciplines in which there is increasing interest in the non-Western world. For example, for aspiring teachers, knowledge of Islamic civilization provides tools for understanding—and teaching about—areas far removed from the Middle East, such as South Asia, Indonesia, and sub-Saharan Africa. Business majors who can demonstrate some understanding of regional customs, cultural practices, and language, can gain advantage with the many local firms with Middle East trade links.

A study-abroad program in Egypt is offered during spring term. Students may also study in Tunisia and Turkey through COUNCIL programs. For more information, consult the Padnos International Center or the coordinator of the Middle East studies program.

Students are encouraged to participate in the Model Arab League simulation held annually in late February and in field trips to points of cultural interest locally and in the Detroit area.

Students minoring in Middle East studies must complete a minimum of 18–19 hours of coursework. Normally, this includes 13 hours of core courses (including four credits of language) and six credits of electives. Students entering the university competent in Arabic at the 202 level or higher will take one additional elective course, for a total of 18 credits. No more than two courses from any department other than Middle East studies can be counted toward the minor.

All minors are required to complete the following courses:

ARA 202 Intermediate Arabic
GPY 355 Geography of Southwest Asia
HST 338 Modern Middle East *or* HST 337 Age of Islamic Empire
MES 201 Introduction to the Middle East

Students with fourth-semester or higher competence in Hebrew, Persian, or Turkish may substitute that for the Arabic requirement but will likewise take one extra course from the list below.

Modern Languages

In addition to the above required courses, students will select two courses (six credits) from the following list:

ANT 330 Anthropology of Selected World Areas (when focus is the Middle East)
ANT 350 Archaeology of the Middle East
ENG 303 Topics in World Literature (when focus is the Middle East)
HST 210 Empire, Culture, and Conflict (when focus is the Middle East)
HST 337 The Age of Islamic Empire
HST 338 The Modern Middle East
MES 380 Special topics in Middle East Studies
MES 399 Independent study (No more than three credits)

Courses of Instruction

MES 201 Introduction to the Middle East. An entry-level course introducing students to the variety and complexity of the Middle East. Provides a broad view of the region from the perspective of several disciplines and is especially suitable for students having little familiarity with the region. Fulfills World Perspectives requirement. Three credits. Offered fall semester.

MES 380 Special Topics in Middle East Studies. Consideration of selected topics not ordinarily dealt with in the regular curriculum. Topics will be determined by faculty interest and student request and will be announced in the class schedule. Can be repeated for credit when the topic differs. Three credits.

MES 399 Independent Studies. Before registering, students must arrange for supervision by a Middle East studies faculty member and submit a contract (available from the MES coordinator) specifying the topic and scope of the study. Instructor approval required prior to registration. One to three credits. Offered every semester.

Modern Languages and Literatures

Chair: _____. Professors: Rydel, M. Seeger, W. Seeger; Associate Professors: Caillaud, Gros, Fernandez-Levin, Pozzi, Wright; Assistant Professors: Ferrell, Fox, Golembeski, Gomez, Hong, Lamb, Smith, Watts.

The importance of foreign language study has never been more obvious than in today's global society. Leaders in business, government, and throughout the community are calling for increased awareness of the interrelatedness and interdependence of all nations and societies. One of the traditional barriers to understanding, and to the free flow of communication, has been a lack of informed citizens with competence in at least one foreign language. There is no better way to understand and appreciate cultures other than your own than to communicate with other peoples in their own language. What is more, the mastery of a foreign language inevitably improves your command of your native language. With such a high premium on communication skills in the world today, foreign language study is not a luxury; it is a necessity.

Career Opportunities

A bachelor of arts degree in a modern foreign language is a true liberal arts degree, with all the breadth of cultural understanding and communication skills that have always characterized liberal arts study. The demand for teachers of foreign languages is increasing both in schools and in business and industry. Combined with a major or minor in another field, the B.A. in foreign languages opens many possibilities in the worlds of international trade, international relations, diplomacy, government, tourism, and service organizations.

Modern Languages

Given the increasing diversity of the American population and the presence of large numbers of persons whose native language is not English, foreign language study is also an asset to those who plan to work in a variety of professions within the borders of the United States, both in the public and private spheres. Virtually all large corporations and many smaller ones in Michigan and throughout the country are now or soon will be active in international markets. There have never been more opportunities for college graduates with foreign language skills.

Degree Requirements

A student working toward any B.A. degree must successfully complete the third-semester course in a foreign language.

Transfer students who wish to major in a foreign language at Grand Valley must take a minimum of 12 credit hours of advanced-level coursework (300 or above) with the Modern Languages Department at Grand Valley to qualify for a major.

For transfer students who wish to minor in a foreign language, a minimum of six credit hours of advanced coursework (300 or above) with the Modern Language Department at Grand Valley is required. This requirement includes those who have graduated from other institutions and now seek teaching certification from Grand Valley.

Students seeking secondary certification in foreign languages must take the foreign language methods seminar, Education (FL) 331, in order to be certified. It is further recommended that students seeking elementary certification audit the seminar.

Students may also choose to enroll in foreign language and literature courses on a credit/no credit basis.

The 380 special-topics courses are available in all foreign languages. The independent study and research courses in French, German, Russian, and Spanish are available to qualified students for independent study in areas not covered by the regular foreign language offerings.

Placement in Language Courses

Students who have studied a foreign language in high school or who have practical knowledge of a foreign language must take a placement examination prior to enrolling for further study of that language. (See below for exceptions in French and Spanish.) Students must enroll in the course in which they place on the examination. Instructors who determine that students are inappropriately enrolled may direct them to move to the appropriate level.

Transfer students with prior college language study are not eligible to take the placement examination in that language, and must enroll in a course at the next appropriate level.

Students with non-college language learning may be able to earn college credit by achieving an appropriate score on an approved national test, such as Advanced Placement (see "Credit by Examination" below).

Students who have studied French or Spanish in high school may not need to take the placement examination. The following guidelines apply:

- 0–2 semesters of high school language: May take 101.
- 3–4 semesters of high school language: May take 150 or 102. May *not* take 101.

Modern Languages

- 5 or more semesters of high school language: Must take placement test and may not take 101.

Native speakers are not eligible to take the placement exam, nor are they eligible to enroll in 100- or 200-level courses. The students should talk to an advisor in the Modern Languages Department for proper placement.

“150” Course

This course is designed for students who have sufficient prior study to make placement in 101 inappropriate. The 150 course includes a review of first semester language (101) and covers the same material as 102. Completion of the course with a grade of C or higher prepares students for 201. The “150” course fulfills the general education category CGE/B.

Foreign Language Learning Resource Center (Laboratory)

The Learning Resource Center offers access to state-of-the-art audio, video, and computer equipment. All elementary and intermediate language courses require a minimum of 50 minutes a week of lab attendance. The audio-visual and computer resources are also used to enrich many upper-division courses. LRC equipment and software are being constantly updated and expanded. Most audio drill materials can be duplicated for foreign language students' private use.

Study Abroad

Grand Valley urges all students to seek study-abroad experience. Foreign language majors and minors will make exceptional progress by combining study abroad with their formal coursework on the home campus. Moreover, approved study experiences of varying lengths—summer, semester, or academic year—carry full academic credit for all participants, including nonmajors. The majority of programs currently offered take place during the summer and are accompanied by a Grand Valley State University faculty member. Longer stays can be arranged, however, through Grand Valley's institutional ties with colleges and universities in most regions of the world.

For more information, students should contact the Padnos International Center at 895-3898.

Regular accompanied programs include:

China—A summer study program in current events, culture, history, and Chinese language at East China University of Science and Technology in Shanghai.

Costa Rica—An intensive Spanish program (two weeks). The program will help students strengthen or maintain their language skills through intensive language study, home stay with a Costa Rican family, and cultural excursions. Students may earn two credits. Credits may not be applied toward a Spanish major.

France—A summer school program in French language and culture located in Nice in southern France.

Germany—A summer school program in German language and culture located in Tübingen in southern Germany.

Japan—A two-semester exchange program with both the International Christian University in Tokyo and the Japan Center for Michigan Universities in Hikone. Intensive Japanese language study is offered in the summer at the Japan Center.

Modern Languages

Mexico—A summer school program offering classes in Spanish language, literature, culture, and civilization in Guadalajara, Mexico.

Poland—Summer and academic year programs in economics, management, and the Polish language located at the Krakow University of Economics.

Spain—A 400-level, six-credit course that explores the art, music, and literature surrounding the Camino de Santiago. Includes a four-week hike along the Camino.

Taiwan—A summer school program offering classes in Chinese language and culture in Taiwan.

Arabic, Chinese, Japanese, and Polish Language Instruction

Grand Valley offers two full years (16 credits) of instruction in Arabic, Chinese, and Japanese: 101, 102, 201, and 202. The 201 course satisfies the B.A. degree cognate. Courses in Arabic are part of the Middle East studies minor and courses in both Chinese and Japanese language are part of the East Asian studies minor. Polish 101 is offered fall semester and is particularly recommended for students who plan to take advantage of GVSU's summer study program in Poland. Plans are under way to increase offerings in these and other less-commonly taught languages.

Courses of Instruction in Arabic

Classes are conducted primarily in Arabic.

ARA 101 Elementary Arabic I. An introduction to the language with an emphasis on understanding, speaking, and reading, complemented by taped materials available in the language laboratory. Not for credit for students with prior college Arabic. Four credits. Offered fall semester.

ARA 102 Elementary Arabic II. Continuation of 101. Prerequisite: C (not C-) or better in 101, or credit. Four credits. Offered winter semester.

ARA 180 Special Topics in Arabic. Expectations of students approximate those in other 100-level courses. May be repeated when content differs. Variable credit. Offered on sufficient demand.

ARA 201 Intermediate Arabic I. Continued study of grammar and vocabulary aimed at the mastery of more difficult reading and conversation. Prerequisite: C (not C-) or better in 102, or credit. Four credits. Offered fall semester.

ARA 202 Intermediate Arabic II. Continuation of 201. Prerequisite: C (not C-) or better in 201, or credit. Four credits. Offered winter semester.

ARA 280 Special Topics in Arabic. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

ARA 380 Special Topics in Arabic. Three credits. Offered on sufficient demand.

ARA 480 Special Topics in Arabic. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated when content differs. Variable credit. Offered on sufficient demand.

Courses of Instruction in Chinese

Classes are conducted primarily in Chinese.

CHI 101 Elementary Chinese I. An introduction to the language with emphasis on listening, speaking, reading, and writing. Four credits. Offered fall semester.

CHI 102 Elementary Chinese II. Continuation of 101. Prerequisite: C (not C-) or better in 101. Four credits. Offered winter semester.

Modern Languages

CHI 180 Special Topics in Chinese. Course content varies. Expectations of students approximate those in other 100-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

CHI 201 Intermediate Chinese I. Continued study of grammar and vocabulary aimed at the mastery of more difficult reading and conversation. Prerequisite: C (not C-) or better in 102. Four credits. Offered fall semester.

CHI 202 Intermediate Chinese II. Continuation of 201. Prerequisite: C (not C-) or better in 201. Four credits. Offered winter semester. Fulfills World Perspectives requirement.

CHI 280 Special Topics in Chinese. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated for credit when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

CHI 321 Ancient Chinese Culture. Explores the beautiful and rich lifestyle of ancient China through art, music, and literature in translation. Covers archaic times (twelfth century B.C. through post-Han dynasty (fifth century A.D.)). Three credits. Offered fall semester on demand.

CHI 322 Classical Chinese Culture. Explores the beautiful and rich lifestyle of classical China through art, music, and literature in translation. Covers the Sui-T'ang (sixth century A.D.) through the Ch'ing dynasty (nineteenth century). Three credits. Offered winter semester on demand.

CHI 380 Special Topics in Chinese. Three credits. Offered on sufficient demand.

CHI 399 Independent Reading. One to four credits. Offered fall and winter semesters.

CHI 480 Special Topics in Chinese. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated for credit when content varies. Variable credit. Offered on sufficient demand.

Courses of Instruction in Japanese

Classes are conducted primarily in Japanese.

JPN 101 Elementary Japanese I. An introduction to the language with emphasis on listening, speaking, reading, and writing. Complementary taped material available in the language laboratory. Four credits. Offered fall semester.

JPN 102 Elementary Japanese II. Continuation of 101. Prerequisite: C (not C-) or better in 101. Four credits. Offered winter semester.

JPN 180 Special Topics in Japanese. Course content varies. Expectations of students approximate those in other 100-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

JPN 201 Intermediate Japanese I. Continued study of grammar and vocabulary aimed at the mastery of more difficult reading and conversation. Prerequisite: C (not C-) or better in 102. Four credits. Offered fall semester.

JPN 202 Intermediate Japanese II. Continuation of 201. Prerequisite: C (not C-) or better in 201. Four credits. Offered winter semester. Fulfills World Perspectives requirement.

JPN 280 Special Topics in Japanese. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated for credit when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

JPN 380 Special Topics in Japanese. Three credits. Offered on sufficient demand.

JPN 399 Independent Reading. One to four credits. Offered fall and winter semesters.

JPN 480 Special Topics in Japanese. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

French (FRE)

Requirements for Major and Minor Programs

Students majoring in French are required to take a minimum of 33 hours of study in this language beyond 102/150 (credits for 201 and 202 or equivalent

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may be counted toward the major or minor) and FRE 495 (capstone). In addition, they must take English 261 if they are seeking elementary and secondary teacher certification.

Students choosing French as a minor program must complete 20 hours of French beyond the French 102/150 course, including 201 and 202 (or its equivalent) and 12 hours of 300- or 400-level courses.

Courses of Instruction

Classes are conducted primarily in French.

FRE 101 Elementary French I. An introduction to the language with emphasis on understanding, speaking, and reading, complemented by taped materials available in the language laboratory. Not for credit for students with prior college French or more than two semesters of high school French. Four credits. Offered fall and winter semesters.

FRE 102 Elementary French II. Continuation of 101. Students may not receive credit for both 150 and 102. Prerequisite: C (not C-) or better in 101, or credit, or appropriate placement test score. Four credits. Offered fall and winter semesters.

FRE 150 Intensive Elementary French. One-semester review of elementary French for students with prior study but who are not adequately prepared for 200-level courses. Covers the same material as 101 and 102. Not open to students with credit in French 101 or 102 or their equivalent. Prerequisite: Appropriate high school background or placement test score. Four credits. Offered fall and winter semesters.

FRE 180 Special Topics in French. Course content varies. Expectations of students approximate those in other 100-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

FRE 201 Intermediate French I. Continuation of 102 or 150. Prerequisite C (not C-) or better in 102 or 150, or credit, or appropriate placement test score. Four credits. Offered fall and winter semesters.

FRE 202 Intermediate French II. Study of written language through readings from modern authors, continued practice in listening and speaking, review of grammar. Prerequisite: C (not C-) or better in 201, or credit, or appropriate placement test score. Fulfills World Perspectives requirement. Four credits. Offered fall and winter semesters.

FRE 225 Exploring France. An introduction to the concept of culture through an exploration of the cultural heritage of France; its regions, history, and politics; its art, music, and literature; and its influence in the world at large and in American culture in particular. Does not count as credit toward French major or minor. Three credits.

FRE 280 Special Topics in French. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated for credit when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

FRE 300 Survey of French Literature I. A survey of French literature of the Middle Ages and the Renaissance. Prerequisite: 202 or permission of instructor. Three credits. Offered fall semester in odd-numbered years.

FRE 301 Modern French Literature in Translation. A study of selected French authors of the nineteenth and twentieth centuries. Taught in English. A supplemental writing skills course. Three credits. Not open for credit to students who have had FRE 303, 414, 416, 420.

FRE 302 Survey of French Literature II. A survey of French literature of the seventeenth and eighteenth centuries. Prerequisite: 202 or permission of instructor. Three credits. Offered winter semester in even-numbered years.

FRE 303 Survey of French Literature III. A survey of French literature of the nineteenth and twentieth centuries. Prerequisite: 202 or permission of instructor. Three credits. Offered fall semester in even-numbered years.

FRE 304 French Conversation. Extensive practice in oral communication; some translation from English to French; attention to finer points of grammar and style. Prerequisite: 202 or consent of the instructor. Three credits. Offered fall semester.

FRE 305 French Phonetics. Intensive study of the basic principles of French phonetics, with the emphasis on improving pronunciation and aural comprehension. Introduction

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to principles of French pronunciation, the International Phonetic Alphabet, and phonetic transcription. Intensive exposure to French through a variety of media, including the language laboratory, and practice with each major phoneme. Prerequisite: 202 or permission of instructor. Three credits. Offered winter semester.

FRE 306 French Composition. Extensive practice in written composition. Review of the finer points of grammar and study of stylistic techniques through an analysis of excerpts from French literature. Prerequisite: 202. Three credits. Offered winter semester.

FRE 307 Advanced French Grammar. Detailed study of French grammar with a focus on areas of difficulty for speakers of English. Extensive written and in-class oral practice. Course is designed to help students expand their French skills to a level appropriate for third- and fourth-year reading and writing courses. Prerequisite: 202 or permission of instructor. Three credits. Offered fall semester.

FRE 308 French History and Civilization. A study of the main themes of French civilization and culture with their implications for contemporary France and their literary manifestations. Taught in French. Prerequisite: 202. Three credits. Offered fall semester in even-numbered years.

FRE 310 Contemporary France. French civilization and culture as seen through books, periodicals, and films; discussion of current events. Prerequisite: 308 or permission of instructor. Three credits. Offered winter semester in odd-numbered years.

FRE 380 Special Topics in French. Offered on sufficient demand.

FRE 399 Independent Reading. One to four credits. Offered fall and winter semesters.

FRE 410 Medieval French Literature. Study of representative French works of poetry, prose, and theatre from the Middle Ages. Readings include epic and lyric poetry, courtly literature, fables, farces, and religious theatre. Prerequisite: 300 or permission of instructor. Three credits. Offered fall semester in even-numbered years.

FRE 414 French Literature of the Nineteenth Century. Study of drama, criticism, poetry, and the novel of the nineteenth century. Prerequisite: 303 or permission of instructor. Three credits. Offered winter semester in odd-numbered years.

FRE 416 French Literature of the Twentieth Century. Study of contemporary literature with representative works in prose, poetry, drama, and scenarios. Prerequisite: 303 or permission of instructor. Three credits. Offered fall semester in odd-numbered years.

FRE 420 French Literature after 1945. Study of contemporary literature with representative works in prose, poetry, drama, and scenarios since World War II. Prerequisite: 303. Two credits. Offered fall semester in even-numbered years.

FRE 480 Special Topics in French. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated for credit when content varies. Variable credit. Offered on sufficient demand.

FRE 495 Cross-National Literary Movements (capstone). Interdisciplinary exploration of a major literary period or genre such as Romanticism, Rationalism, or Symbolism from a cross-national perspective. Prerequisite: Senior standing with a major in French. Required of all French majors. Three credits. Offered winter semester.

FRE 499 Independent Study and Research. One to four credits. Offered fall and winter semesters.

German (GER)

Requirements for Major and Minor Programs

Students majoring in German are required to take a minimum of 33 hours of study in this language beyond German 102/150, including eight hours of intermediate German (or its equivalent), 301 and 302, 15 hours of literature and/or culture courses, and GER 495 (capstone).

Students seeking secondary teacher certification must take English 261, preferably before enrolling in teacher assisting. In addition, majors are urged to pursue studies in history, philosophy, and world literature.

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Students choosing German as a minor program must complete 20 hours of German beyond German 102/150, including eight hours of intermediate German (or its equivalent) and 301, 302, and six hours of courses numbered 300 and above.

Courses of Instruction

Advanced courses are conducted primarily in German.

GER 101 Elementary German I. Introduction to the language and culture of the German-speaking countries (Germany, Austria, Switzerland), with an emphasis on practical application of speaking, listening, reading, and writing skills. The course is conducted largely in German to advance students' communication and cultural competency to function in real-life situations and any professional field. Four credits. Offered fall and winter semesters.

GER 102 Elementary German II. Continuation of 101. The course completes the introduction to the language and culture of the German-speaking countries (Germany, Austria, Switzerland). The course is conducted largely in German and enhances the students' knowledge and competency in real-life communication (speaking, listening, reading, writing,) for application in a profession. Prerequisite: C (not C-) or better in 101, or credit, or appropriate placement test score. Four credits. Offered fall and winter semesters.

GER 150 Intensive Elementary German. One-semester review of elementary German for students with prior study but who are not adequately prepared for 200-level courses. Covers the same material as 101 and 102. Not open to students with credit in German 101 or 102 or their equivalent. Prerequisite: Appropriate high school background or placement test score. Four credits. Offered fall and winter semesters.

GER 180 Special Topics in German. Course content varies. Expectations of students approximate those in other 100-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

GER 201 Intermediate German I. Continuation of German 102. The course enhances students' competency in the German language (listening, speaking, reading, writing) and culture skills, with an emphasis on real-life communication for application in professional fields. Conducted almost exclusively in German, with extensive use of authentic materials: literature, newspapers, videos, tapes, and the Internet. Prerequisite: C (not C-) or better in 102, or "credit," or appropriate placement test score. Four credits. Offered fall and winter semesters.

GER 202 Intermediate German II. Continuation of German 201. Review, practice, and advancement of all the acquired language (speaking, listening, reading, writing) and cultural skills from 101–201 in real-life situations toward language proficiency. Conducted in German and exposes students to more difficult texts relevant to students' professional interests, literature, films, music, and the Internet. Prerequisite: C (not C-) or better in 201, or credit, or appropriate placement test score. Fulfills World Perspectives requirement. Four credits. Offered fall and winter semesters.

GER 225 Exploring Germany. An introduction to the cultural heritage of Germany. Topics include music, philosophy, literature, and science. Course is taught in English and does not count toward a major in German. Three credits. Offered winter semester.

GER 280 Special Topics in German. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated for credit when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

GER 301 Conversation and Composition I. Extensive practice and real-life application of oral and written communication to advance proficiency in German language and culture. Attention to advanced stylistic and grammatical concepts. Taught in German using authentic materials: newspapers, professional texts, literary readings, video and audio tapes, the Internet, and classroom discussions. Prerequisite: 202 or equivalent. Three credits. Offered fall semester.

GER 302 Conversation and Composition II. Continuation of 301. Extensive practice and real-life application of oral and written communication to advance proficiency in German language and culture. Attention to advanced stylistic and grammatical concepts and their professional application. Taught in German using newspapers, professional texts, literary readings, video and audio tapes, the Internet, and classroom discussions. Prerequisite: 301. Three credits. Offered winter semester.

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GER 303 Introduction to German Literature I. A brief survey of German literature from the Germanic period to the eighteenth century. Prerequisite: 202. Three credits. Offered winter semester in odd-numbered years.

GER 304 Introduction to German Literature II. A brief survey of German literature from the eighteenth century to the present. Prerequisite: 202. Three credits. Offered winter semester in even-numbered years.

GER 310 German Civilization and Culture I. A study of the cultural, social, and economic history and development of the German-speaking peoples from the early beginning to the Baroque. Course is conducted in German and continues to emphasize and advance all areas of language competency (listening, speaking, reading, writing). Prerequisite: 202. Three credits. Offered fall semester in even-numbered years.

GER 311 German Civilization and Culture II. Continuation of 310. A study of the cultural, social, and economic history and development of the German-speaking peoples from the Baroque to the present day. Course is conducted in German and continues to emphasize and advance all areas of language competency (listening, speaking, reading, writing). Prerequisite: 202. Three credits. Offered fall semester in odd-numbered years.

GER 321 Germanic Literature in Translation. Germanic literature to the high Middle Ages, including the *Edda*, the *Nibelungenlied*, and *Beowulf*. Background readings in Germanic mythology. Not open for credit to students who have had German 303. Credit does not count toward major. Three credits. Offered on sufficient demand.

GER 322 Modern German Literature in Translation. German literature of the twentieth century with emphasis on the novel. Secondary readings in nineteenth-century backgrounds. Authors include Mann, Kafka, Hesse, Brecht, and Grass. Open for credit to German majors, but credit does not count toward the major. Three credits. Offered on sufficient demand.

GER 380 Special Topics in German. Offered on sufficient demand.

GER 399 Independent Reading. One to four credits. Offered fall and winter semesters.

GER 401 German Literary Movements. Reading and analysis of individual or selected German literary movements within their cultural and historical context and relevance. Conducted in German. Class discussions and written assignments advance students' language and cultural competency in German. Prerequisite: Two 300-level courses or permission of instructor. Three credits.

GER 402 German Authors. Reading and analysis of German authors within their cultural and historical context and relevance. Conducted in German. Class discussions and written assignments advance students' language and cultural competency in German. Prerequisite: Two 300-level courses or permission of instructor. Three credits.

GER 480 Special Topics in German. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated for credit when content varies. Variable credit. Offered on sufficient demand.

GER 495 German Capstone. Interdisciplinary study of a major literary, cultural, historical, economic, or political period, genre, or movement from a cross-national perspective in an effort to produce a thesis that culminates the study of German as a major. Conducted in German. Prerequisite: Senior standing with a major in German. Required of all German majors. Three credits. Offered winter semester.

GER 499 Independent Study and Research. One to four credits. Offered fall and winter semesters.

Russian (RUS)

Requirements for Minor Program

Students choosing Russian as a minor program must complete 20 hours of Russian language beyond 102. Recommended courses for students interested in acquiring a good background on Russia are History 389, 390, and 391 and Russian Studies 225, 331, 332, 333. Please note that these courses are not included in the minor programs.

Students interested in pursuing a major or minor in Russian area studies should refer to the courses listed under the Russian studies program.

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Courses of Instruction

RUS 101 Elementary Russian I. An introduction to Russian pronunciation and grammar. Four credits. Offered fall semester.

RUS 102 Elementary Russian II. Continuation of 101. Prerequisite: C (not C-) or better in 101, or credit. Four credits. Offered winter semester.

RUS 180 Special Topics in Russian. Course content varies. Expectations of students approximate those in other 100-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

RUS 201 Intermediate Russian I. Continued study of grammar and vocabulary aimed at the mastery of more difficult reading and conversation. Prerequisite: C (not C-) or better in 102, or credit. Four credits. Offered fall semester.

RUS 202 Intermediate Russian II. Continuation of 201. Prerequisite: C (not C-) or better in 201, or credit. Fulfills World Perspectives requirement. Four credits. Offered winter semester.

RUS 280 Special Topics in Russian. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated for credit when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

RUS 301 Advanced Russian Grammar I. Continued study of grammar and vocabulary. Prerequisite: 202 or equivalent. Three credits. Offered fall semester.

RUS 302 Advanced Russian Grammar II. Continuation of 301. Three credits. Offered winter semester.

RUS 304 Russian Conversation and Composition I. Practice in oral and written Russian; development of listening and reading skills. Prerequisite: Successful completion of RUS 302 (C or better) or permission of instructor. Three credits. Offered fall semester.

RUS 306 Russian Conversation and Composition II. Continuation of RUS 304. Prerequisite: Successful completion of RUS 304 (C or better) or permission of instructor. Three credits. Offered winter semester.

RUS 380 Special Topics in Russian. Offered on sufficient demand.

RUS 399 Independent Reading. One to four credits. Offered fall and winter semesters.

RUS 401 Introduction to Russian Literature I. A brief survey of nineteenth-century Russian literature. Course taught in Russian. Prerequisite: 302 or equivalent. Three credits. Offered fall semester.

RUS 402 Introduction to Russian Literature II. A brief survey of Russian literature of the twentieth century. Course taught in Russian. Prerequisite: 401. Three credits. Offered winter semester.

RUS 480 Special Topics in Russian. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated for credit when content varies. Variable credit. Offered on sufficient demand.

RUS 499 Independent Study and Research. One to four credits. Offered fall and winter semesters.

Spanish (SPA)

Requirements for Major and Minor Programs

Students majoring in Spanish are required to take a minimum of 33 credits in this subject beyond the 200-level, including SPA 301, 302, one Civilization and Culture course (from SPA 310, 311, 312 or 313), one Survey of Literature course (**either** SPA 331 **OR** SPA 332), SPA 330, one 400-level literature course, and SPA 495 (capstone). In addition, students seeking elementary and secondary certification must take a second Civilization and Culture course, SPA 314, and SPA 335, for a total of 36 credits. All students are urged to declare the major at the beginning of their sophomore year and to take courses beyond the minimum number, particularly those in Civilization and Culture and literature. Students should also seriously contemplate taking advantage of the various semester and year-long study abroad

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opportunities and they are encouraged to consider a minor that will complement the major such as Latin American Studies, business, or another language.

The minor in Spanish is designed for students majoring in the professions or other disciplines who wish to enhance their knowledge of the primary field by perfecting their Spanish language skills and comprehension of culture. Students choosing Spanish as a minor program must complete a total of 21 hours of Spanish beyond the 200-level. The minor is especially geared toward students in the professions; it is strongly recommended that minors take the appropriate courses for their field (from SPA 304, 305, and 306), as well as SPA 303, Professional Writing. In addition, students choosing Spanish as a teachable minor must take a second Civilization and Culture course, SPA 314, and SPA 335. The total number of credits required for the minor is the same regardless of the emphasis.

Credits for 101, 102, 150, 201, 203, or 204 will **not** be counted toward the major or minor.

Suggested progression of courses for the Major

In order to complete the program in four years, work toward the major should begin in a student's sophomore year. The suggested distribution of courses is as follows:

Sophomore Year

First semester: SPA 301 Conversation and Composition I; **one** elective from SPA 300 Reading and Telling Stories, SPA 308 Spanish Phonetics.

Second semester: SPA 302 Conversation and Composition II; **one** elective from SPA 300 Reading and Telling Stories, SPA 308 Spanish Phonetics.

Teaching majors should take SPA 314 Teaching Methods at this point.

Junior Year

First semester: SPA 330 Introduction to Literary Analysis OR SPA 331 Survey of Spanish Literature; **one** Civilization and Culture course from SPA 310 Spanish Civilization and Culture, SPA 311 Spanish American Civilization and Culture I, SPA 312 Spanish American Civilization and Culture II, SPA 313 U.S. Latino Civilization and Culture;

Second semester: SPA 330 Introduction to Literary Analysis OR SPA 332 Survey of Spanish American Literature; **one** elective from SPA 300 Reading and Telling Stories, SPA 308 Spanish Phonetics, SPA 309 Advance Grammar; a second Civilization and Culture course; either SPA 330 or 332 if not taken above.

Teaching majors should take a second Civilization and Culture course at this point.

Senior Year

First semester: **One** 400-level literature course; **one** elective from SPA 303 Professional Writing, SPA 327 History of the Spanish Language, SPA 329 Spanish Sociolinguistics, SPA 335 Introduction to Spanish Linguistics, a second 400-level literature course, a second Civilization and Culture course, a second survey course.

Teaching majors should take SPA 335 Introduction to Spanish Linguistics at this point.

Second semester: SPA 495 Capstone.

Note: Majors may also take any of the Spanish for the professions courses as electives at any time.

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Courses of Instruction

Classes are conducted primarily in Spanish.

SPA 101 Elementary Spanish I. An introduction to the language with emphasis on understanding, speaking, and reading, complemented by taped materials available in the language laboratory. Not for credit for students with prior college Spanish or more than two semesters of high school Spanish. Four credits. Offered fall and winter semesters.

SPA 102 Elementary Spanish II. Continuation of 101. Students may not receive credit for both 102 and 150. Prerequisite: C (not C-) or better in 101, or credit, or appropriate placement test score. Four credits. Offered fall and winter semesters.

SPA 150 Intensive Elementary Spanish. One-semester review of elementary Spanish for students with prior study but who are not adequately prepared for 200-level courses. Covers the same material as 101 and 102. Not open to students with credit in Spanish 101 or 102 or their equivalent. Prerequisite: Appropriate high school background or placement test score. Four credits. Offered fall and winter semesters.

SPA 180 Special Topics in Spanish. Course content varies. Expectations of students approximate those in other 100-level courses. May be repeated for credit when content differs. Variable credit. Offered on sufficient demand.

SPA 201 Intermediate Spanish I. Special emphasis on oral and reading practice based on literary texts; review of grammar supplemented with taped materials in the language laboratory. Prerequisite: C (not C-) or better in 102 or 150, or credit, or appropriate placement test score. Four credits. Offered fall and winter semesters.

SPA 202 Intermediate Spanish II. Continuation of 201. Introduction of writing techniques. Prerequisite: C (not C-) or better in 201, or "credit," or appropriate placement test score. Fulfills World Perspectives requirement. Four credits. Offered fall and winter semesters.

SPA 203: Spanish for Heritage Speakers. An intermediate Spanish course for students who grew up listening to and/or speaking Spanish. Focus on developing all four language skills, with special emphasis on the needs of heritage learners. Prerequisite: Permission of instructor. Three credits. Offered fall semesters.

SPA 204: Supplemental Spanish Grammar. An intermediate-level review of Spanish grammar designed for students who have weak language skills. This course provides a rigorous grammar review of the entire verb system (tense, mood, voice, and aspect), clause structure and the pronominal system. Prerequisite: 202. Three credits. Offered fall semester.

SPA 280 Special Topics in Spanish. Course content varies. Expectations of students approximate those in other 200-level courses. May be repeated for credit when content differs. No more than four credits can be applied to the minor or major. Variable credit. Offered on sufficient demand.

SPA 300 Reading and Telling Stories. This course introduces some of the most important short story writers from Spain and Latin America of the late nineteenth and twentieth centuries. It is designed to aid students to develop reading strategies, as well as to become more skilled story-tellers. Prerequisite: C (not C-) or better in 202, or credit, or appropriate placement test score. Three credits. Offered fall and winter semesters.

SPA 301 Spanish Conversation I. First of a two-part sequence designed to improve proficiency in oral skills and academic writing in Spanish as well as listening and reading skills. Course will present a systematic review of grammar and promote the acquisition of new vocabulary in the context of Hispanic culture. Prerequisite: C (not C-) or better in 202, or credit, or appropriate placement test score. Three credits. Offered fall semester.

SPA 302 Spanish Composition II. Second of a two-part sequence designed to improve proficiency in oral skills and academic writing in Spanish as well as listening and reading skills. Course will present a systematic review of grammar and promote the acquisition of new vocabulary in the context of Hispanic culture. Prerequisite: C (not C-) or better in 301. Three credits. Offered winter semester.

SPA 303 Professional Writing. Builds practical writing skills in written Spanish to enable students to produce documents pertinent to their future professional careers. Designed for the Spanish minor, with an emphasis on linguistic and cultural registers of written Spanish and on specialized vocabulary. Contains a service-learning component. Prerequisite: 302 with a grade of C- or better. Three credits. Offered fall semester.

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SPA 304 Spanish for Health Professionals. A third-year Spanish course designed to prepare students in the health professions to successfully communicate with Spanish-speaking clientele. Prerequisite: 202 with a grade of C- or better. Three credits. Offered winter semester.

SPA 305 Spanish for Law Enforcement. This course is designed to teach the specialized vocabulary and terminology necessary for law enforcement professionals to communicate in Spanish. A review of relevant grammatical structures will also be presented. In addition, cross cultural differences, cultural sensitivity, and language variation as they relate to issues of law enforcement will be central themes of this course. Prerequisite: 202 with a grade of C- or better. Three credits. Offered fall semester.

SPA 306 Spanish for Business. The purpose of this class is to introduce students to the Spanish business terminology and to teach the fundamentals of practical commercial correspondence (oral and written) in advertising, insurance, transportation, banking, and foreign trade. Special attention will be paid to cross cultural differences and similarities in specific countries. Prerequisite: 202 with a grade of C- or better. Three credits. Offered winter semester.

SPA 307 Death and Dying in Hispanic Literature. Examines the literary representations of and responses to death and dying within the historical and cultural context of Spain and Latin America through the reading and discussion of representative poetic, dramatic, and narrative works. Course does not count toward the major or minor when taught in English. May be used toward the General Education requirement in the Theme category. Does not count toward Spanish major or minor. Three credits. Offered winter semester.

SPA 308 Spanish Phonetics. Introduction to the sound system of Spanish. Phonetic transcription of texts in Spanish. Prerequisite: Completion of 202 with a grade of C (not a C-) or better. Three credits. Offered fall semester.

SPA 309 Advanced Spanish Grammar. A study of the syntax and morphology of Spanish designed to give students a deeper understanding of the language and to increase their accuracy and range in the use of it. Prerequisite: Completion of 302 with a grade of C (not C-) or better. Three credits. Offered fall and winter semesters.

SPA 310 Spanish Civilization and Culture. An introduction to the political, social, economic, and cultural history of Spain. Fulfills World Perspectives requirement. Prerequisite: Completion of 302 with a grade of C (not C-) or better. Three credits. Offered winter semester.

SPA 311 Latin American Civilization and Culture I. An introduction to the political, social, economic, and cultural history of Latin America up to the 1800s. Fulfills World Perspectives requirement. Prerequisite: Completion of 302 with a grade of C (not C-) or better. Three credits. Offered fall semester.

SPA 312 Latin American Civilization and Culture II. Designed to provide students with the knowledge of major historical, literary, and cultural moments in Latin America from Independence to the present day. Fulfills World Perspectives requirement. Prerequisite: Completion of 302 with a grade of C (not C-) or better. Three credits. Offered winter semester.

SPA 313 U.S. Latino/a Civilization and Culture. An introduction to the political, social, economic, and cultural history of Latinos/as in the United States that leads to an appreciation and awareness of the cultural roots and current lifestyles of these groups. Fulfills U.S. Diversity requirement. Prerequisite: Completion of 302 with a grade of C (not C-) or better. Three credits. Offered fall semester.

SPA 314 Teaching Methods. This course provides future Spanish teachers with an introduction to the basic concepts of Spanish pedagogy with particular emphasis on the communicative approach. Students will learn to write lesson plans, design and teach communicative activities, and create appropriate evaluation materials such as exams and quizzes. Prerequisite: Completion of 202 with a grade of C (not C-). Three credits. Offered winter semester.

SPA 324 Spanish-American Novel in Translation. A study of the twentieth-century Spanish-American novel. Three credits. Offered on sufficient demand.

SPA 325 Early Spanish Literature in Translation. A survey of Spanish literature from its beginnings to 1800, including Don Quixote and other works of the Golden Age. Three credits. Offered on sufficient demand.

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SPA 326 Modern Spanish Literature in Translation. A survey of Spanish literature of the nineteenth and twentieth centuries. Three credits. Offered on sufficient demand.

SPA 327 The History of the Spanish Language. An introduction to the phonological, morphological, and syntactic evolutions and changes that took place as Spanish developed from spoken Latin. Prerequisite: 308 and 309 with a grade of C (not C-) or better. Three credits. Offered winter semesters in even-numbered years.

SPA 329 Sociolinguistics of Spanish. An introduction to the relationship between Spanish language and society, including the evolution of Spanish in Spain and Latin America, dialectal variation, Spanish in contact with other languages, and Spanish as a component of individual and group identity. Prerequisite: Completion of 302 with a grade of C (not C-) or better, or permission of instructor. Three credits. Offered fall semester.

SPA 330 Introduction to Literary Analysis. Introduction to the literary analysis of the narrative, poetry, and drama of Spain and Spanish America. Prerequisite: Completion of 302 plus six credits at the 300 level with a grade of C (not C-) or better, plus three additional Spanish credits at the 300 level. Three credits. Offered fall and winter semesters.

SPA 331 Survey of Spanish Literature. A historically grounded survey of the principal literary works and movements of Spain. Prerequisite: Completion of 302 plus six credits at the 300 level with a grade of C (not C-) or better. May be taken in conjunction with SPA 330. Three credits. Offered fall semester.

SPA 332 Survey of Spanish American Literature. A historically grounded survey of the principal literary works and movements of Spanish America. Prerequisite: Completion of 302 plus six credits at the 300 level with a grade of C (not C-) or better. May be taken in conjunction with SPA 330. Three credits. Offered winter semester.

SPA 335 Introduction to Spanish Linguistics. A general introduction to modern linguistic concepts, applied especially to the Spanish language. Includes the sound system (phonetics and phonology), word formation (morphology), the structure of utterances (syntax), meaning and usage (semantics and pragmatics), and language variation. Prerequisite: Spanish 309 or permission of instructor. Three credits. Offered winter semester.

SPA 378 Contemporary Latin American Literature. A survey of Spanish literature of the past three decades in English translations, taking in a variety of nations, regions, and cultures, including Afro-Latin and Indigenous voices. Genres to be studied include the novel, the short story, poetry, drama, testimonial narrative, speeches, folklore, and film. Prerequisite: WRT 150 and one literature course (SPA 330 for Spanish majors). Three credits. Offered winter semesters in even-numbered years. Cross-listed with ENG 378/LAS 378.

SPA 380 Special Topics in Spanish. Offered on sufficient demand.

SPA 399 Independent Reading. One to four credits. Offered fall and winter semesters.

SPA 410 Spanish American Narrative. Study of some of the major prose writers of the twentieth century. Prerequisite: Completion of 330 and 332 with a grade of C (not C-) or better, or permission of instructor. Three credits. Offered fall semester in even-numbered years.

SPA 420 Topics in Early Spanish Literature. Study of Spanish literature before 1700, centered around a thematic or genetic framework relevant to the cultural climate of early Spain. Topics may include *The Evolution of Early Spanish Literature*, *Love and Honor in Golden Age Drama*, *Imaginative Fiction before Cervantes*, *The Language of Desire in Early Prose and Poetry*. Prerequisite: Completion of 330 and 331 with a grade of C (not C-) or better. Three credits. Offered winter semester in odd-numbered years.

SPA 430 U.S. Latino/a Literature. An in-depth study of Latino/a literature produced in the United States. Texts will be closely examined from a cultural and historical perspective as well as within the history of narrative forms in order to facilitate an appreciation and awareness of the cultural roots and current lifestyle of Latinos/as in the United States. Prerequisite: 330 and 332 with a grade of C (not C-) or better. Three credits. Offered winter in even-numbered years.

SPA 440 Cervantes. Survey of Cervantes' masterwork, *Don Quixote de la Mancha*. Prerequisite: 330 and 331 with a grade of C (not C-) or better. Three credits. Offered winter semester in even-numbered years.

SPA 450 Modern Spanish Novel. Study of the novel in nineteenth- and twentieth-century Spain. Special emphasis on the realists and the generation of 1898. Prerequisite: 330 and

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331 with a grade of C (not C-) or better. Three credits. Offered fall semester in odd-numbered years.

SPA 460 Women Authors. An in-depth study of Spanish and Spanish American women authors whose literature, across the centuries, has dealt with a particular historical, cultural, social, and philosophical experience. Prerequisite: Completion of 330, plus 331 or 332 with a grade of C (not C-) or better. Three credits. Offered fall semester in even-numbered years.

SPA 470 Spanish Laboratory Theatre. Consists of rehearsal and public performance of a full-length play or a group of one-act plays. Plays selected from contemporary peninsular and Spanish-American authors. Prerequisite: Completion of 330, plus 331 or 332 with a grade of C (not C-) or better. Three credits. Offered winter semester in odd-numbered years.

SPA 480 Special Topics in Spanish. Course content varies. Expectations of students approximate those in other 400-level courses. May be repeated for credit when content varies. Variable credit. Offered on sufficient demand.

SPA 495 Cross-National Literary Movements (capstone). Interdisciplinary exploration of a major literary period or genre such as Romanticism, Rationalism, or Symbolism from a cross-national perspective. Prerequisite: Three credits at 400 level (literature) and senior standing with a major in Spanish. Required of all Spanish majors. Three credits. Offered fall and winter semesters.

SPA 499 Independent Study and Research. One to four credits. Offered fall and winter semesters.

Movement Science (MOV/PED)

Chair: Giardina; Associate Professors: Glass, Rowe, Scott; Assistant Professors: Albrecht, Bechtel; Athletic Training Program Director: Bartz; Athletic Training Clinical Instructors: Vunovich, Woods.

Degree offered: B.S. in physical education. Certification: Teacher certification K–12 in the physical education major with Emphasis A. Secondary-level teachable minor in physical education.

Accreditation: The Athletic Training program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (C.A.A.H.E.P.).

The Department of Movement Science serves the diverse preprofessional needs of Grand Valley State University students who are accepted as majors or minors in physical education. The department also provides skills development activity courses in fitness, wellness, and leisure sport activities for the personal enrichment of Grand Valley State University students, faculty, and staff.

The goal of the core curriculum is to provide students with a broad theoretical and conceptual foundation. The curriculum is designed to encourage the examination of the philosophical, historical, psycho-social, scientific, ethical, and legal constructs of the profession. In addition, the curriculum provides the opportunity for majors to complete at least one of five emphasis areas within the major: K–12 Professional Instruction, Fitness/Wellness, Exercise Science, Athletic Training, and Sports Pedagogy. The combination of the core curriculum plus one or more areas of emphasis is intended to accommodate the diverse professional preparation needs of our undergraduate students.

Career Opportunities: Physical Education

The degree in physical education is designed for the preparation of teachers, coaches, athletic trainers, fitness/wellness, and exercise science leaders. Career opportunities include positions as teachers (K–12), coaches, intramural directors,

Movement Science

recreation leaders, athletic officials, athletic administrators, consultants, camp directors, youth leaders, wellness/fitness leaders and administrators, athletic trainers, and personal trainers.

Major Requirements: Physical Education

Students seeking a major in physical education must complete the following requirements:

1. University degree requirements as identified in the General Academic Regulations section of the catalog.
2. Core curriculum for the major in Physical Education (19 credit hours)

MOV 101 Foundations of Physical Education and Sport	3 credits
PED 102 First Aid	2 credits
MOV 201 Psychosocial Aspects of Physical Education and Sport	3 credits
MOV 300 Kinesiology	3 credits
MOV 309 Measurement and Evaluation	2 credits
MOV 310 Motor Skills Development	3 credits
PED 401 Organization and Administration of Physical Education and Sport (SWS) (capstone)	3 credits
3. Skills development activity courses (five credit hours) selected from PED 120 through 179, one of which must be aquatics. Each skills course must be from a different numerical category.
4. Emphasis areas.

Emphasis areas are designed to allow students to pursue in-depth knowledge in one or more areas, which will provide a specialized focus for their professional preparation. Four emphasis areas are available. At least one must be completed.

A. K–12 Professional Instruction (24 credit hours).

Physical education majors selecting Emphasis A, K–12 Professional Instruction, must meet requirements of the School of Education if they intend to pursue teacher certification. PED 306/307 must be taken before ED 303/307 for teacher assisting. **Emphasis A may also be taken by students who do not intend to enter the School of Education.** Students **must** take the following courses in addition to the core curriculum, B.S. degree cognates, and skills development activity courses:

PED 306 Teaching Physical Education—Elementary	3 credits
PED 307 Teaching Physical Education—Secondary	3 credits
PED 301 Methods of Teaching Health Education	3 credits
PED 200 Rhythms and Dance, K–12	3 credits
PED 210 Tumbling and Gymnastics, K–12	3 credits
PED 220 Individual Sports, K–12	3 credits
PED 230 Team Sports, K–12	3 credits
MOV 320 Aerobic Exercise Leadership (with PED 168)	3 credits

PED 202 is required for PED majors by the School of Education for teacher certification candidates. Emphasis A students must take PED 168 corequisite with MOV 320 toward the fulfillment of the five-credit skills development course requirements.

B. i. Fitness/Wellness (32–35 credit hours).

Physical education majors selecting Emphasis B, Fitness/Wellness **must** complete the following courses in addition to the core curriculum, B.S. degree cognates, and skills development activity courses:

HS 105 Basic Nutrition	3 credits
CS 150 Introduction to computing	3 credits

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PED 206 Conditioning Activity	2 credits
MOV 320 Aerobic Exercise Leadership (with PED 168)	3 credits
MOV 404 Static Human Performance Laboratory	2 credits
MOV/HS 466 Dynamic Human Performance Laboratory	2 credits
SOC 384 Sociology of Drug Use and Abuse	3 credits
PSY 310 Behavior Modification	3 credits
MGT/MKT One Course/Advisors Approval	3 credits

Emphasis B.i., elect three courses from the following:

HS 208/309 Human Anatomy/Lab	4 credits
HS 280/281 Human Physiology/Lab	4 credits
PED 307 Teaching Physical Education—Secondary	3 credits
PED 210 Tumbling and Gymnastics	3 credits
PED 204 Theory and Organization of Intramurals	2 credits
MOV 217 Modern Principles of Athletic Training	3 credits
PSY 366 Stress, Personality, and Perception	3 credits
BIO 325 Human Sexuality	3 credits
REC 307 Recreation for the Aging* or	3 credits
SOC 388 Middle Age and Aging*	3 credits
OSH/HS 110 Introduction to Occupational Safety and Health	3 credits
MGT 331 Concepts of Management	3 credits
MGT 332 Administrative Behavior	3 credits
MKT 350 Marketing Management	3 credits
PA 375 Public Budgeting and Finance	3 credits

Emphasis B students must take the following skills development activity classes toward fulfillment of the five-credit major requirement:

PED 150 or 151 Swimming	1 credit
PED 126 or 127 Conditioning and Flexibility	1 credit
PED 122 Weightlifting	1 credit
PED 168 Aerobic Dance Exercise (with MOV 320)	1 credit

B. ii. Exercise Science Emphasis

Graduates from this emphasis will be prepared to follow career opportunities within cardiac rehabilitation and Wellness programs. A clinical internship is normally required before entering such fields but is currently not part of the degree program. Students are encouraged to arrange a clinical internship the semester after completing required coursework.

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.

2. Health sciences core requirements:

HS 208 Human Anatomy
HS 212 Introductory Microbiology
HS 213 Laboratory in Microbiology
HS 220 Health Care Delivery
HS 280 Human Physiology*
HS 281 Laboratory in Human Physiology
HS 301 Introduction to Research
HS 495 Concepts in Wellness**

3. 27 semester credit hours of required science cognate courses.

BIO 112 General Biology II*
BIO 355 Human Genetics
CHM 109 Introductory Chemistry

*Students may use only one of these two courses to fulfill requirements.

** Capstone course

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CHM 231 Introductory Organic Chemistry
CHM 232 Biological Chemistry
PHY 200 Physics for the Health Sciences
STA 215 Introductory Applied Statistics*

4. 18 semester credit hours of emphasis courses to include all of the following:

HS 305 Clinical Nutrition***
HS 310 Basic Pathophysiology***
HS 311 Pharmacological Aspects of Health Sciences
HS 365 Clinical Exercise Physiology***
HS 375 Biology of Aging***
PSY 310 Behavior Modification

C. Athletic Training (41–42 credit hours).

Emphasis C, Athletic Training, is accredited by the Commission on Accreditation of Allied Health Education Programs (C.A.A.H.E.P.). **This program is available only to students who apply and are admitted through the formal admissions process.** Although the Athletic Training program is part of the Movement Science Department, students need to major in physical education to pursue the Athletic Training certification program. Students may choose any major (e.g., health science) and combine that major and admission into the program, the curriculum courses, and clinical hours to complete the certification test requirements. Students should contact a physical education advisor for further information or clarification.

The prerequisites for admission into the curriculum program are as follows:

1. Completion of PED 102 with a grade of B (3.0).
2. Completion of PED 217 with a grade of B (3.0).
3. Overall GPA of 2.7 with at least one semester attendance at GVSU.
4. Minimum of 50 observation hours in the Grand Valley training room.
5. Attendance at in-services.

Once the above criteria have been met, the student is eligible to apply for admission into the program. Admission is competitive and is based on

1. Score on the written test.
2. Score on the oral/practical test.
3. Score on admission essay.
4. Attendance at in-services and observation hours.
5. Score on the interview.
6. Strength of recommendations.

The number of students admitted into the Athletic Training curriculum depends on the availability of clinical spots, which will vary from semester to semester. Students are admitted at the end of fall or winter semester for the following semester. Once admitted into the program, a student is required to spend a minimum of five semesters completing the clinical experience.

Admission into the Athletic Training program and successful completion of the curriculum courses and clinical hours prepares students to sit for the National Athletic Trainers Association (NATA) certification exam upon graduation. Employment opportunities for a certified trainer are varied.

* BS Cognate course sequence: STA 215; Bio 112; HS 280–281.

***These courses may be substituted with Movement Science courses by advisement with a professor in the Movement Science Department.

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Currently, an athletic trainer may be employed by a high school, college, hospital, or in an industrial setting.

Physical education majors who select Emphasis C, Athletic Training, must complete the following courses, in addition to the core curriculum, B.S. degree cognates, clinical hours, and skills development activity courses. Other majors need to complete the following courses and the required clinical hours.

HS 105 Basic Nutrition	3 credits
HS 202 Anatomy and Physiology** or HS 280/281 Human Physiology/Lab	4 credits
HS 208 Human Anatomy**	3 credits
HS 309 Human Anatomy Lab*	1 credit
HS 355 Dissection of Commonly Injured Joints	2 credits
PSY 101 Introductory Psychology	3 credits
PSY 301 Child Development or PSY 364 Life Span Developmental Psychology	3 credits
PED 102 First Aid**	2 credits
PED 217 Modern Principles of Athletic Training**	3 credits
MOV 300 Kinesiology	3 credits
PED 301 Methods of Teaching Health Education†or	3 credits
HS 220 Health Care Delivery† or	2 credits
HS 222 Introduction to Public Health†	3 credits
HS 365 Clinical Exercise Physiology	3 credits
MOV 314 Advanced Athletic Training**	3 credits
MOV 316 Rehabilitation of Athletic Injuries**	2 credits
PED 401 Organization and Administration** (capstone) (SWS)	3 credits
MOV 405 Clinical Athletic Training**	2 credits

D. Sport Pedagogy (Coaching) (24 credit hours).

Majors who select Emphasis D, Sport Pedagogy, must complete the following courses in addition to the core curriculum, B.S. degree cognates, and skills development activity courses.

PED 206 Conditioning Activity	2 credits
PED 217 Modern Principles of Athletic Training	3 credits
PED 218 Officiating Seasonal Sports	2 credits
PED 220 Individual Sports	3 credits
PED 230 Team Sports	3 credits
Psychology Elective	3 credits

Elect 8 credit hours from the following:

PED 250 Baseball Coaching Theory	2 credits
PED 251 Basketball Coaching Theory	2 credits
PED 252 Football Coaching Theory	2 credits
PED 253 Tennis Coaching Theory	2 credits
PED 254 Track and Field, Cross-Country Coaching Theory	2 credits
PED 255 Volleyball Coaching Theory	2 credits
PED 256 Wrestling Coaching Theory	2 credits
PED 257 Swimming and Diving Coaching Theory	2 credits
PED 258 Softball Coaching Theory	2 credits

*Students must receive a "C" or better.

**Students must receive a "B" or better.

†Students choose one course.

Note: Students who do not meet the minimum grade requirements for the courses as noted must repeat the course and the requirement within two semesters to remain in the program.

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5. Cognate Electives.

Students in certain emphasis areas are required to take selected prerequisites, as follows:

Cognate Elective	Emphasis Area	Credits
PSY 101 Introductory Psychology (GenEd SS/A) Prerequisite for MOV 310.	A B C D	3 credits
HS 202 Anatomy and Physiology Prerequisite for MOV 300 and MOV 304.	A B C D	4 credits
PED 306 is a prerequisite for PED 307 (for emphasis A students only)	A	3 credits
HS 208 Human Anatomy	C	3 credits
HS 309 Human Anatomy Lab Prerequisite for MOV 314.	C	1 credit
PSY 301 Child Development Prerequisite for ED 303, ED 305 and ED 307	A	3 credits

6. B.S. degree cognates (10 credit hours).

MOV 304 Physiology of Activity	3 credits
STA 215 Introductory Applied Statistics (Gen. Ed. CGE/A)	3 credits
HS 202 Anatomy and Physiology (Gen. Ed. NS/B)	4 credits

Physical Education Major Course Sequence Guide

Courses in the major and minor should be taken according to numerical sequence within the Core Curriculum and Degree Cognates and emphasis areas. Attention should be paid to prerequisite requirements. Courses are designed so that material mastered in a lower number course is expected to be expanded upon or applied during subsequent courses.

100-level courses are meant to be taken during the freshman year.

200-level courses are meant to be taken during the sophomore year.

300-level courses are meant to be taken during the junior year.

400-level courses are meant to be taken during the junior and senior years.

Recommended Sequences:

For the Core and Cognates

MOV 101 before any/all other PED/MOV courses.

HS 202 before MOV 300, 304, and 320.

MOV 300, 304 before MOV 320.

MTH 110 before STA 215.

STA 215 before MOV 309

PSY 101 is recommended before MOV 201

For Emphasis A, K–12 Professional Instruction:

PED 200, 210, 220, 230, MOV 309, and 310 before PED 306.

PED 306 before PED 307 (for Emphasis A students).

PED 306 and PED 307 before School of Education fieldwork (ED 303/307, 403/407)

For Emphasis B, Fitness/Wellness

MOV 300, 304, 309, 320 before MOV 404

MOV 404 before MOV 466

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For Emphasis C, Athletic Training

PED 102, PED 217 and MOV 300, HS 202/208 (or 280/281), 309 before MOV 314

MOV 314 before MOV 316

MOV 314 and 316 before MOV 405

Must maintain current First Aid and CPR certification.

For Emphasis D, Sport Pedagogy/Coaching

Follow sequence for Core and Degree Cognates.

Minor Requirements: Physical Education (24 credit hours)

Students seeking a teachable minor in physical education **must** complete the following:

MOV 101 Foundations of Physical Education and Sport	3 credits
MOV 201 Psychosocial Aspects of Physical Education and Sport	3 credits
PED 220 Individual Sports	3 credits
PED 230 Team Sports	3 credits
MOV 300 Kinesiology	3 credits
(Prerequisite: HS 202, General Education NS/B)	
MOV 304 Physiology of Activity	3 credits
(Prerequisite: HS 202, General Education NS/B)	

Students seeking a minor in physical education must elect six credit hours from the following courses, in addition to the required courses:

PED 102 First Aid	2 credits
PED 200 Rhythms and Dance, K–12	3 credits
PED 210 Tumbling and Gymnastics, K–12	3 credits
PED 306 Teaching Physical Education—Elementary	3 credits
PED 307 Teaching Physical Education—Secondary	3 credits
MOV 309 Measurement and Evaluation	2 credits
MOV 310 Motor Skills Development	3 credits
MOV 320 Aerobic Exercise Leadership	3 credits
(Prerequisites: MOV 300 and 304)	

Minor Requirements: School Health Education (30 credit hours)

This 30-credit hour minor is approved by the State of Michigan for elementary or secondary education majors. This minor prepares School Health Education candidates to teach Health Education in grades K–12.

Students seeking a teachable minor in School Health *must* complete the following requirements:

HS 105 Basic Nutrition
HS 202 Anatomy and Physiology
HS 220 Health Care Delivery
HS 222 Introduction to Public Health
HS 223 Public Health Concepts
BIO 112 General Biology II
BIO 325 Human Sexuality
SOC 384 Sociology of Drug Use and Abuse
PED 102 First Aid
PED 301 Methods of Teaching Health Education

Courses of Instruction

Skills Development Activity Courses

Skills development activity courses provide instruction for the purpose of developing proficiency in fitness, sport, recreation, and leisure activities. Each activity

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course carries one credit hour. Activity courses are offered to meet student demand and are graded credit/no credit.

PED 120-129 Individual Sports

- 120 Bowling.
- 121 Golf.
- 122 Weight Training.
- 124 Cycling.
- 125 Cross Country Skiing.
- 126 Conditioning and Flexibility—Beginning.
- 127 Conditioning and Flexibility—Advanced.
- 128 Rock Climbing

PED 130-139 Team Sports.

- 130 Volleyball.
- 131 Basketball.
- 132 Lacrosse.
- 133 Softball.

PED 140-149 Racquet Sports.

- 140 Beginning Racquetball.
- 141 Intermediate—Advanced Racquetball.
- 142 Beginning Tennis.
- 143 Intermediate—Advanced Tennis.
- 144 Badminton.

PED 150-159 Aquatics

- 150 Beginning Swimming.
- 151 Intermediate—Advanced Swimming.

PED 160-169 Dance

- 160 Beginning Jazz.
- 161 Intermediate—Advanced Jazz.
- 162 Beginning Tap.
- 163 Intermediate—Advanced Tap.
- 164 Beginning Modern Dance.
- 165 Intermediate—Advanced Modern Dance.
- 166 Beginning Ballet.
- 167 Intermediate—Advanced Ballet.
- 168 Aerobic Dance Exercise.
- 169 Folk, Square, and Social Dance.

PED 170-179 Combatives

- 170 Wrestling

Professional Courses

Numbers in parentheses at the end of course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

MOV 101 Foundations of Physical Education and Sport. Aims and objectives, professional preparation, professional opportunities, relationship of physical education to health education, recreation, and athletics. Three credits.

MOV 180, 280, 380, 480 Selected Topics. Lecture, discussion, laboratory, or field study on a topic related to Movement Science. One to three credits. Offered on demand.

MOV 201 Psycho-social Aspects of Physical Education and Sport. A study of the psycho-social and cultural context of sports and physical education. The role of education and other institutional social and cultural forces that are integral to the sporting milieu, the psychological and behavioral factors that influence the sport setting, and participation will be studied. Prerequisite: 101. Three credits.

MOV 300 Kinesiology. Laws and principles of mechanics as they apply to the use of the human body, human mechanism, and its process of motor function. Prerequisite: Health Sciences 202. (2-1-0). Three credits.

MOV 304 Physiology of Activity. Study and investigation of the function of the body systems during activity and the response of these systems to activity. A lecture-laboratory combination. Prerequisite: Health Sciences 202 or equivalent. (2-1-0). Three credits.

MOV 309 Measurement and Evaluation. Introduction to scientific measurement and evaluation, special studies, research projects, and instrumentation applied specifically to physical education. (1-1-0). Two credits.

MOV 310 Motor Skill Development. The study of the acquisition of motor skills. The class investigates principles and theory of motor skill development as applied to the teaching and coaching of skilled performance. Prerequisite: PSY 101. Three credits. Offered fall and winter semesters; summer on demand.

MOV 314 Advanced Athletic Training. Prevention, care, and treatment of athletic injuries. Anatomical consideration and physiological responses involved in sports medicine. Prereq-

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quisites: PED 102, 217, MOV 300 and Health Sciences 202 and 208 or 280/281. (2-1-0). Three credits.

MOV 316 Rehabilitation of Athletic Injuries. Deals with the skills needed for the rehabilitation of athletic injuries and various therapeutic exercises as they relate to prevention and rehabilitation of injuries. Class time divided between lecture and lab. Prerequisites: PED 102, MOV 217, MOV 300; HS 202, 208/309; admission to the athletic training program. Two credits.

MOV 320 Aerobic Exercise Leadership. Prepares students to design, lead, and supervise aerobic exercise programs. Course content is drawn from dance, sport activities, kinesiology, exercise physiology, and psychology to provide the skills and knowledge needed by leaders in fitness and wellness settings. To be taken concurrently with PED 168 Aerobic Dance. Prerequisite: 304. Three credits.

MOV 399 Independent Readings. Special studies in movement science upon consultation with faculty advisor and approval of department chair. One to three credits.

MOV 404 Static Human Performance Lab. Laboratory investigation of human performance capacities using modern techniques of measurement for static assessment of anthropometric, physiological, pulmonary, cardiovascular, metabolic, and physical parameters. Prerequisite: 304 or HS 365. Two credits.

MOV 405 Clinical Athletic Training. Deals with various physical agents that are used in the treatment of athletic injuries. Also included are the specific topics unique to the practice of athletic training in the hospital or clinic setting. Prerequisites: 314 and 316. Two credits.

MOV/HS 466 Dynamic Human Performance Lab. Laboratory investigation of human performance capacities using modern techniques of measurement for dynamic assessment of anthropometric, biomechanical, physiological, pulmonary, cardiovascular, and metabolic parameters. Prerequisites: STA 215, MOV 309, 404, or HS 365. Two credits.

MOV 499 Independent Study and Research. Special studies in movement science in consultation with advisor and approval of department chair. One to three credits.

MOV 580 Special Topics in Movement Science. Lecture, discussion, laboratory, or field study on a topic related to Movement Science. One to three credits.

MOV 680 Special Topics in Movement Science. Lecture, discussion, laboratory, or field study on a topic related to Movement Science. One to three credits.

PED 102 First Aid. First Aid and CPR Certification. First aid care for the teacher and recreation leader. (1-1-0). Two credits.

PED 106 Swimming and Lifeguarding. Skills and techniques of lifesaving and water safety. ARC Certification. Instructor approval. Two credits.

PED 180, 280, 480 Selected Topics. Lecture, discussion, laboratory, or field study on a topic related to Physical Education. One to three credits. Offered on demand.

PED 200 Rhythms and Dance K-12. The study of the essential experiences needed for the development of rhythmic movement competency in elementary and secondary school students, including the design and implementation of appropriate learning experiences to provide for the acquisition of rhythmic movement. Three credits.

PED 202 Adapted Physical Education and Recreation. Fundamental concepts of adjustment and development of the handicapped person, recreation for the handicapped. (1-1-0). Two credits.

PED 204 Theory and Organization of Intramurals. Philosophy, organization, finances, facilities, awards, and rules of intramural sports. Practical experience to be gained in working in the college intramural program. (1-1-0). Two credits.

PED 206 Conditioning Activities, Body Mechanics, and Dynamics. Physical inventory to appraise body condition, function, and ability to relax. Basic techniques to attain goals for improving and/or maintaining body image. How to look better, feel better and do better. (1-1-0). Two credits.

PED 210 Tumbling and Gymnastics, K-12. The study of skills and teaching techniques for teaching tumbling, gymnastics, and associated motor skills development activities in the K-12 physical education curriculum. Three credits.

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PED 215 Water Safety Instruction. Prepares students for water safety instruction certification. Includes skill improvements and techniques of teaching swimming and lifesaving. American Red Cross certification possible upon successful completion. Prerequisite: Swimming proficiency. (2-1-0). Three credits.

PED 217 Modern Principles of Athletic Training. Lecture and laboratory course pertaining to the prevention, care, and treatment of athletic injuries. The course is divided into one-half lecture and one-half laboratory, including preventive wrapping and taping. Prerequisite: 102. (2-1-0). Three credits.

PED 218 Officiating Seasonal Sports. Theory, skills, and practice of officiating seasonal sports: fall—football, basketball, volleyball; winter—wrestling, baseball, and softball. A study of rules and procedures used in sports officiating as prescribed by the Michigan High School Athletic Association. (1-1-0). Two credits.

PED 220 Individual Sports. The study of individual and lifetime sports skills and techniques for teaching those skills in the K–12 physical education curriculum and in the coaching of youth sport and athletics participants. Three credits.

PED 230 Team Sports. Technique and procedures for teaching and coaching soccer, speedball, team handball, and other selected team sports. Three credits.

PED 250–258 Coaching Theory Courses. Intense and comprehensive theory oriented courses, including current skills development methodology and coaching technique, concurrent with the history of the sport, official rules, legal regulations, safety, strategy, playing dynamics, and coaching fundamentals. Two credits per course.

PED 250 Baseball Coaching Theory.

PED 251 Basketball Coaching Theory.

PED 252 Football Coaching Theory.

PED 253 Tennis Coaching Theory.

PED 254 Track and Cross Country Coaching Theory.

PED 255 Volleyball Coaching Theory.

PED 256 Wrestling Coaching Theory.

PED 257 Swimming and Diving Coaching Theory.

PED 258 Softball Coaching Theory.

PED 301 Methods of Teaching Health Education. This course deals with personal, community, and school health, with special emphasis on teaching these aspects of health. A requirement for the school health education minor. (2-1-0). Three credits.

PED 305 Movement Education. Focuses on developing an understanding of the role of movement education and physical education in the elementary school curriculum, plus the skills needed to design and implement learning experiences. (2-1-0). Three credits.

PED 306 Teaching Physical Education—Elementary. The theory and practice of teaching as an elementary physical education specialist. Emphasis on meeting the developmental needs of the elementary child. Curriculum construction, teaching/learning plans, assessment and evaluation, methods, activities, and materials unique to the elementary physical education program. Prerequisite: COM 201. (2-1-0). Three credits.

PED 307 Teaching Physical Education—Secondary. Theory and practice of basic teaching methodology for the physical educator. Emphasis on problem solving and traditional approaches to learning. Unit planning, daily lesson plans, teaching aids, and materials for the physical education program. Must be taken before assistant teaching. Prerequisites: 306 and COM 201. (2-1-0). Three credits.

PED 380 Special Topics in Physical Education. Study of special problems in physical education upon consultation with advisor and approval of department chair. One to three credits. Offered on demand.

PED 399 Independent Readings. Special studies in physical education upon consultation with faculty advisor and approval of department chair. One to three credits.

PED 401 Organization and Administration of Physical Education and Sport (Capstone). Develops a thorough and fundamental base for the administrative principles in physical education and athletics programming, to include the administrative framework, fiscal management, facilities management, curriculum development, scheduling, supervision, public relations,

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policies and procedures, guidelines, evaluations, time management, safety, and ethics. SWS course. (2-1-0). Three credits.

PED 499 Independent Study and Research. Special studies in physical education upon consultation with advisor and approval of department chair. One to three credits.

PED 580 Special Topics in Physical Education. Lecture, discussion, laboratory, or field study on a topic related to physical education. One to three credits.

PED 680 Special Topics in Physical Education. Lecture, discussion, laboratory, or field study on a topic related to physical education.

Music (MUS)

Chair: Schuster-Craig. Distinguished Professor: Jenson; Professor: Schuster-Craig. Associate Professors: Baum, Campbell, Copenhaver, Martin, Pool, Reichert, Schriemer, Shechtman, Vanden Wyngaard; Assistant Professors: Chen, Ellenberger, Feurzeig, Gordon, Lee, Marlais, Norris, Stoelzel.

In addition to the full-time faculty, 30 distinguished musicians and educators teach applied music and special courses on a part-time basis.

The Department of Music offers curricula leading to the B.A., B.M., and B.M.E. degrees. These degree programs present professional training in music in the context of a broad liberal education. They provide courses of study for gifted students who are interested in performance, composition, music technology, jazz studies, preparing for advanced study in graduate school, and vocal and instrumental music education, for those who seek careers in elementary and secondary school teaching. Additionally, in the tradition of liberal education, the department is committed to providing the experience of music for students in all departments and to serving the university community by providing appropriate musical support for all facets of academic life.

Grand Valley State University is an accredited institutional member of the National Association of Schools of Music.

Career Opportunities

Music provides many career opportunities—from playing in a symphony orchestra to becoming a recording studio musician, from teaching privately or in a college to being a band leader or an organist and church choir director. For the talented and versatile music educator, there are many opportunities to teach music in public and private schools.

In addition to careers in performance and teaching, there are numerous other challenging opportunities that demand thorough music training. These include being a music therapist, copyist, conductor, performance manager, composer, arranger, librarian, journalist, church musician, instrument repair person, studio musician, or fine arts broadcaster. Persons who combine training in music with one of the other arts, such as theatre, dance, or communications, are prepared for still other career possibilities.

Admission

In addition to the formal admission to Grand Valley, each applicant wanting to major or minor in music is required to arrange for a personal audition with the Music Department. When considerable geographical distance or extreme

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hardship prevents a personal audition, the applicant may, with the permission of the department, submit a tape recording of an appropriate performance. Arrangements for auditions may be completed only after the applicant has been admitted to Grand Valley. Audition appointments should be made at least 10 days in advance. Entering freshmen and transfer students will be required to take a theory placement exam and a keyboard placement exam.

In addition to completion of a successful audition prior to admission, a second screening occurs before admission to upper-division courses. This evaluation includes performance, faculty recommendations, a brief essay, an interview, and, for music education majors, a profile of teaching competencies.

Requirements for Major and Minor Programs

In addition to requirements outlined below, all majors must fulfill the department recital and Music Major Seminar attendance requirements, fulfill the keyboard musicianship requirements, and perform one or two faculty-approved recitals, as appropriate to the degree program selected. Music majors and minors should consult the Music Department **Student Handbook** for additional information and helpful suggestions.

Transfer students are required to complete a minimum of 30 hours at Grand Valley, which includes at least eight hours in applied music, three hours in major ensembles, and nine additional hours in music to be determined by the advisor. Any exceptions to these requirements are left to the discretion of the Music Department.

Bachelor of Arts

The B.A. degree provides a course of study for students interested in a liberal arts degree with a major in music. This degree, with its foreign language component, offers an appropriate background for prospective advanced-degree candidates who are preparing for careers in composition, technology, music history, music theory, jazz studies, library science, or independent studio teaching. There is sufficient flexibility within the B.A. to provide an opportunity for acquisition of those skills that are proving to be necessary in the current technological environment. Students electing a B.A. in music must complete a minimum of 50 credit hours in music, planned with the approval of a faculty advisor in the department. Course requirements are as follows:

Music Theory and Ear Training (19 hours): 130, 131, 133, 134, 230, 231, 233, 234, 495

Music Literature and History (8 hours): 119, 120, 306, and one course from 302–305

Keyboard Musicianship* (0–4 hours): 263, 264, 283; 284 (voice majors only)

Major Ensembles (7 hours) to be selected according to major instrument: 101, 102, 103, 107, 112, 117

Applied Music (14 hours): 141, 142, 241, 242, 341, 342, 441

Half Recital (0 hours)

Conducting (2 hours): Music 320

Foreign Language (12 hours)

Electives (18–22 hours)

*Contingent on placement exam and major instrument.

Bachelor of Music

The B.M. is designed for students who demonstrate exceptional preparation for college-level applied music and for whom graduate school is a realistic goal. Instruction in guitar, organ, piano, voice, and band and orchestral instruments is normally available. Students admitted to this program must complete a minimum of 90 credit hours in music. For students with abilities in composition and/or jazz studies, there is opportunity to develop these skills as well. Requirements for the B.M. are as follows:

Bachelor of Music (90-96 hours)

Music Theory and Ear Training (22 hours): 130, 131, 133, 134, 230, 231, 233, 234, 495, and one course from 330-338.

Music Literature and History (8 hours): 119, 120, 306, and one course from 302-305

Keyboard Musicianship* (0-4 hours): 263, 264, 283; 284 (voice majors only)

Conducting (2 hours): 320

Music Technology (1 hour): 181

Major Ensembles (7 hours), to be selected according to major instrument: 101, 102, 103, 107, 112, 117

Applied Music (32 hours): 144, 145, 244, 245, 344, 345, 444, 445

Other Applied (2 hours)—may be fulfilled with Keyboard Musicianship courses and recital credits

Pedagogy and Literature:

Piano Majors (8 hours)—310, 361, 371

Voice Majors (6 hours)—313, 358, 359

All others (4 hours): 499 (independent study with applied or other instructor)

Music Electives: 12 hours

Half Recital and Full Senior Recital (0 hours or may be taken for credit under "other applied")

Additional requirements:

Foreign Language for Voice Majors (8 hours): two courses in differing languages

Bachelor of Music Education

The B.M.E. enables students to meet certification requirements for teaching music in Michigan elementary and secondary schools. This degree has two tracks—vocal/choral emphasis and instrumental emphasis. Students must earn a minimum of 67 hours in music and 39 hours in professional education.

Vocal/choral majors normally will choose an applied emphasis in voice or keyboard. In addition, they must take one semester each of Class Woodwinds, Class Brass, and Class Strings.

Instrumental majors normally will choose a standard band or orchestra instrument as their applied emphasis. In addition, they must take one semester each of Class Voice and Class Percussion and two semesters each of Class Woodwinds, Class Brass, and Class Strings. Requirements for the B.M.E. are as follows:

Bachelor of Music Education (67-75 hours)

Music Theory and Ear Training (22 hours): 130, 131, 133, 134, 230, 231, 233, 234, 495, and one course from 330-338.

Music Literature and History (8 hours): 119, 120, 306, and one course from 302-305

Keyboard Musicianship* (0-4 hours): 263, 264, 283; 284 (voice majors only)

Music Technology (1 hour): 181

*Piano majors are exempt from this requirement

Music

Major Ensembles (7 hours): to be selected according to major instrument: 101, 102, 103, 107, 112, 117 (Instrumental Emphasis students *must* complete two hours of MUS 107, Marching Band)

Applied Music (14 hours): 141, 142, 241, 242, 341, 342, 441

Half Recital (0 hours)

Conducting and Repertory (6 hours):

Instrumental Emphasis: 221, 320, 321

Vocal/Choral Emphasis: 222, 320, 322

Music Education (6 hours):

Instrumental Emphasis: 356, 360, 362

Vocal/Choral Emphasis: 354, 356, 365

Secondary Instruments (3–9 hours):

Instrumental Emphasis (8 hours)—250, 253, 254, 255, 256, 257, 258, 259

Vocal/Choral Emphasis with voice as major instrument (3 hours): 253, 255, 258

Vocal/Choral Emphasis with piano as major instrument (9–11 hours): 253, 255, 258; 250, 251(Class Voice) and 141, 142 (2 semesters of applied voice) OR 141, 142, 241, 242 (4 semesters of applied voice)

Additional requirements:

Professional Education (39 hours): CS 205, PSY 301, 325; ED 200, 225, 310, 321, 331, 431

*Piano majors are exempt from this requirement

Sample curricula for all degree programs can be found in the Music Department Handbook.

Music Minors

A student choosing to minor in music must complete at least 26 hours in the field. A minor program should include eight hours of applied music, three hours of major ensemble, eight hours of theory and sight-singing, Music 119 and 120, and with the assistance of an assigned music advisor, an appropriate selection from the following should be made: Music 365 (for secondary choral emphasis) or Music 356 and 360 (for elementary or secondary instrumental emphasis respectively). Conducting 320 is a highly recommended addition to this program. Music minors are required to complete Keyboard Musicianship I and II (MUS 263 and 264).

Courses of Instruction

MUS 100 Introduction to Music Literature. Basic course in music, designed especially for liberal arts students. Study of musical forms, style, media and materials, coupled with the development of intelligent listening habits. Fulfills Arts Foundation. Three credits. Offered fall and winter semesters.

MUS 119 Survey of Music Literature I. A survey of music literature from the Middle Ages through the mid-eighteenth centuries. Required of all music majors and minors. Two credits. Offered fall semester.

MUS 120 Survey of Music Literature II. A survey of music literature of the late eighteenth through early twentieth centuries, concluding with a brief introduction to the study of non-Western musical cultures. Required of all music majors and minors. Prerequisite: 119. Two credits. Offered winter semester.

MUS 129 Fundamentals of Music. Beginning study of music notation, sight-singing, keyboard, and music terminology. Designed for the general student who wishes to learn the fundamentals of music as well as for the prospective music major or minor who has had no theoretical training. Fulfills Arts Foundation. Three credits.

MUS 130 Music Theory I. Music fundamentals for music majors and minors. Musical notation using four clefs, simple, compound, and asymmetric meter, all scales, tertian harmonies to seventh chords, figured bass, and four-part writing. Required of all music majors. Corequisite: 133. Three credits. Offered fall semester.

Music

MUS 131 Music Theory II. Continuation of 130. Secondary harmonies, harmonization of melodies, instrumental transposition. Harmonic and melodic analyses of selected Baroque and Classical works using the following forms and techniques: fugue, figured bass, variation, minuet and trio, sonata, rondo, concerto grosso, binary form. Required of music majors. Prerequisite: 130 or permission of instructor. Corequisite: 134. Three credits. Offered winter semester.

MUS 133 Aural Perception and Sight-Singing I. Introduction of solfeggio and rhythmic syllables, singing with one-line accompaniments, use of four clefs, two- and four-part dictation, improvisation with syllables, error detection. Listening for meter, bass lines, and melodic techniques. Required of all music majors. Corequisite: 130. One credit. Offered fall semester.

MUS 134 Aural Perception and Sight-Singing II. Continuing development of musicianship through intervallic drill, dictation and singing exercises with subdivision of the beat and syncopation. Aural recognition of cadence types, melodic techniques, and tonal forms as studied in MUS 131. Sing and play exercises with chordal accompaniment. Required of music majors. Prerequisite: 133 or permission of instructor. Corequisite: 131. One credit. Offered winter semester.

MUS 170 Evolution of Jazz (1900-1945). A fundamental course in the evolution of jazz styles with emphasis on interpretation and aural comprehension. The ability to read music and/or perform instrumentally or vocally is helpful but not mandatory. Two credits. Offered fall semester on sufficient demand.

MUS 171 Evolution of Jazz (1945 to the present). A second course in the evolution of jazz styles with emphasis upon interpretation and aural comprehension. The ability to read music and/or perform instrumentally or vocally is helpful but not mandatory. Two credits. Offered winter semester on sufficient demand.

MUS 172, 173 Jazz Improvisation. Improvisation in contemporary jazz styles. Uses recordings, original and written improvisations. Requires a knowledge of scales, modes, and chords as well as the ability to improvise on a standard orchestral instrument. Prerequisite: Permission of instructor. One credit. Offered fall and winter semesters.

MUS 180 Arts at Noon. An exploration of theatre, dance, and musical arts through lectures and attendance of professional performances. One credit. Offered fall and winter semesters.

MUS 181 Technology for Musicians. An introduction to computer programs and software specific to the needs of the performer and music educator. A series of projects will focus on Finale notation program, MIDI sequencing programs, sound recording and manipulation, computer-assisted instruction software, and an introduction to music resources on the Internet. Required of all Bachelor of Music and Bachelor of Music Education students. Prerequisite: Music 131. One credit. Offered fall and winter semesters.

MUS 218 World Music. An exploration of non-Western music and Western folk music. Develops listening skills and ability to describe musical sounds and structures. Introduces an ethnomusicological perspective that considers music in relation to other aspects of society and culture. Prerequisite: 100 or 120 or permission of instructor. Three credits. Offered fall semester.

MUS 221 Instrumental Repertory. Survey of solo and small and large ensemble instrumental music for use in the schools. Required of all B.M.E. instrumental majors in the sophomore year. One credit. Offered winter semester.

MUS 222 Choral Repertory. Survey of vocal ensemble literature for use in the secondary schools. Required of all B.M.E. vocal/choral majors during the sophomore year. One credit. Offered winter semester.

MUS 230 Music Theory III. A study of nineteenth-century harmonic, melodic, and formal techniques, including alternate resolutions of diatonic and chromatic seventh chords, altered and expanded tertian harmonies. Analyses of works in a variety of mediums. Introduction to species and harmonically governed counterpoint. Required of music majors. Prerequisite: 131. Three credits. Offered fall semester.

MUS 231 Music Theory IV. A study of post-1900 musical techniques: extended chromatic and higher-numbered harmonies, their use and resolutions, including those in jazz and pop music. Study of non-tertian harmonies, bi-tonality, use of pitch sets, and serialism. Notation and reading of contemporary scores. Analysis of selected jazz improvisation. Required of music majors. Prerequisite: 230. Three credits. Offered winter semester.

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MUS 233 Aural Perception and Sight-Singing III. Further development of musicianship using rhythmic and melodic dictation and singing using ties and chromaticism and modulation, harmonic dictation using secondary harmonies, two-part bicinia for sing-and-play exercises. Improvisation using typical jazz progressions. Interval singing, critical listening with four-voice examples. Required of music majors. Prerequisites: 133 and 134 with grade of C or better. One credit. Offered fall semester.

MUS 234 Aural Perception and Sight-Singing IV. Intervallic singing and dictation using post-1900 melodies. Aural recognition of contemporary musical techniques. Required of music majors. Prerequisite: 233 with grade of C or better. Corequisite: 231. One credit. Offered winter semester.

MUS 236 Accompanying and Sight-Reading. A skill-development course for pianists covering vocal and instrumental accompaniments. Prerequisite: Piano 142 or permission of instructor. Two credits. Offered fall semester.

MUS 263 Keyboard Musicianship I. Introductory keyboard skills, scales, chords, easy pieces, transpositions, improvisations, basic theory at the keyboard. Prerequisite or corequisite: 130. One credit. Offered fall and winter semesters.

MUS 264 Keyboard Musicianship II. A continuation of MUS 263. Prerequisite: 263 or permission of instructor. One credit. Offered fall and winter semesters.

MUS 272, 273 Advanced Jazz Improvisation. Improvisation in contemporary jazz styles. Uses recordings, original and written improvisations. Requires a knowledge of scales, modes, and chords as well as the ability to improvise on a standard orchestral instrument. Prerequisite: Permission of instructor. One credit.

MUS 281 Introduction to Music Technology I. A broad introduction to the current state of the art of music technology. Topics covered include the principles of digital audio, MIDI sequencing, music notation software, and an introduction to algorithmic composition. Prerequisites: 129 or concurrent enrollment in 130. Three credits. Offered fall semester.

MUS 282 Introduction to Music Technology II. A continuation of MUS281. Focuses on digital signal processing, the interactive programming language MAX, audio for multimedia and the Internet, and a historical overview of the growth of music technology in the 20th century. Prerequisite: 281. Three credits. Offered winter semester.

MUS 283 Keyboard Musicianship III. Intermediate keyboard skills, accompaniments to melodies, sequential and free transposition, improvisation, open-score reading, and other creative skills at the keyboard. Required of all majors. Prerequisite: 264. One credit. Offered fall and winter semesters.

MUS 284 Keyboard Musicianship IV. A continuation of MUS 283. Required of all music majors whose primary instrument is voice. Prerequisite: 283 or permission of instructor. One credit. Offered fall and winter semesters.

MUS 290 Composition Seminar. Original composition projects. Individual tutorials devoted to discussion of works in progress and group sessions devoted to exploring various topics of mutual concern to composers. Prerequisite: 131 or permission of instructor. Interview with the instructor required before registering for this seminar. Any level may be repeated for credit. Three credits. Offered fall and winter semesters.

MUS 300 Exploring American Music. Introduction to a variety of American musical styles drawn from many cultures, including Native American, African-American, Latino, and European-American traditions. Topics may include folk music, religious music, Broadway, country, jazz, rock, and American classical music. Fulfills requirements of American Mosaic General Education Theme. Offered fall semester. 3 credits.

MUS 302 Music: Medieval and Renaissance Eras. A comprehensive study of the early development of European art music beginning with the musicalization of the mass, through the late Renaissance (1600). Focus on the emergence of compositional techniques, theoretical writings, and the development of musical forms. Prerequisite: 120. Two credits. Offered fall semester on sufficient demand of odd-numbered years.

MUS 303 Music: Baroque Era. A comprehensive examination of vocal and instrumental music from 1600 to 1750. Major forms studied will include concerto, opera, oratorio, cantata, and fugue. Principal composers studied will include Monteverdi, Scarlatti, Corelli, Vivaldi, Telemann, Handel, and J.S. Bach. An analytical and historical approach with emphasis on listening in weekly labs. Prerequisite: 120. Two credits. Offered fall semester on sufficient demand of even-numbered years.

Music

MUS 304 Music: Classical Era. A comprehensive examination of vocal and instrumental music from 1750 to 1825. Large and small forms will be included with emphasis on the compositions of Mozart, Haydn, and Beethoven. Development of listening skills in weekly labs. Prerequisite: 120. Two credits. Offered winter semester of even-numbered years.

MUS 305 Music: Nineteenth Century. A study of nineteenth-century music by men and women composers of Europe and North America, considering representative examples of symphonic poem, lied, character pieces, chamber music, and nationalistic music. Study of "classical" forms as altered in opera and symphonic music. Development of listening skills in weekly labs. Prerequisite: 120. Two credits. Offered winter semester of odd-numbered years.

MUS 306. Music after 1900. A study of literature and developments in Western music after 1900 with a broadening of horizons through the study of selected musical cultures of the world's peoples. Required of music majors. Prerequisite: 120. Two credits. Offered fall semester.

MUS 310 Piano Literature. A study of music written for the keyboard from the Renaissance to the present time. Prerequisite: 242 Piano. Two credits. Offered on sufficient demand.

MUS 313 Vocal Literature. History of the song with emphasis on reading and hearing examples of the song literature for solo voice. Intended for advanced singers. Prerequisite: Permission of instructor. Two credits. Offered on sufficient demand.

MUS 320 Introduction to Conducting. Fundamentals of baton technique: laboratory experience in conducting, choral and instrumental works, cuing, score reading, and terminology. Prerequisite: Permission of department. Two credits. Offered fall semester.

MUS 321 Instrumental Conducting. Continuation of 320 with an emphasis on techniques relative to the rehearsal and performance of instrumental literature. Required of B.M.E. instrumental majors in the junior year. Prerequisites: 221 and 320. Three credits. Offered winter semester.

MUS 322 Choral Conducting. Continuation of 320 with an emphasis on techniques relative to the rehearsal and performance of choral literature. Required of B.M.E. vocal/choral majors in the junior year. Prerequisites: 222 and 320. Three credits. Offered winter semester.

MUS 324 Creative Movement and Eurhythmics for Musicians. A course designed to develop an acute awareness of sound and space concepts through the explanation of creative and improvisational movement and the evolution of rhythmic involvement through the discipline and techniques of Eurhythmics. Designed for musicians, instrumental and vocal only. Two credits. Offered upon demand.

MUS 330 Instrumentation/Orchestration. A practical course in the arrangement of music for instruments of the orchestra and band as well as vocal scoring. Prerequisite: 231. Three credits. Offered fall semester every other year.

MUS 334 Analysis of Twentieth-Century Music. A study of the composition techniques, styles, and literature of music written since 1900. Prerequisite: 231. Three credits. Offered winter semester alternate years.

MUS 335 Modal Counterpoint. Study and composition based on sixteenth-century contrapuntal practices. Prerequisite: 231. Three credits. Offered fall semester alternate years.

MUS 337 Jazz Theory I. Study of chord voicings beyond basic triads and seventh chords, and of basic contemporary jazz harmonic progressions. Substitute progressions will be studied along with various jazz scale forms. Various theories of jazz harmony will be explored along with analysis of tunes taken from the jazz repertoire. Prerequisite: 231 or permission of instructor. Two credits. Offered once a year.

MUS 338 Jazz Theory II. A continuation of 337. Further analytical studies in chord construction, harmonic progression, and analysis, along with creative work in original song writing, concentrating on harmonic progression and melodic construction. Prerequisite: 337 or permission of instructor. Two credits. Offered once a year.

MUS 350 Music for Classroom Teachers. A practical course for elementary-teacher candidates introducing creative principles, methods, and materials of music pertinent to elementary instruction. Closed to music majors and minors. Three credits. Offered winter semester.

MUS 354 Teaching the Developing Voice. Principles of voice building as applied to the voices of children and adolescents; a course for prospective choral music teachers. Researched-based readings, guided one-on-one instruction of singers from area school music programs,

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discussion of issues related to young singers. Prerequisites: 242 or 245. **Required of all B.M.E. vocal/choral students.** Two credits. Offered fall semester.

MUS 356 Teaching Music in the Elementary School. Techniques and methods of teaching music to children in elementary school classrooms. Designed for music education majors. Two credits. Offered fall semester.

MUS 357 Opera Theatre. An ensemble course for voice students who have been assigned major roles in Opera Theatre mainstage productions. Emphasis on practical aspects of studio voice work, acting, and movement classes. Prerequisite: Permission of instructor. One credit. Offered every semester.

MUS 358 Vocal Pedagogy. Study of varied methodologies in teaching the individual singer, with emphasis on teacher-pupil relationship. Intended for advanced singers. Requires instructor's permission. Two credits. Offered on sufficient demand.

MUS 359 Diction for Singers. Develops a basis for proper pronunciation and understanding of foreign language songs. Prerequisite: FRE 101 and GER 101. Two credits. Offered fall semester.

MUS 360 Instrumental Music Methods and Materials. Includes a brief survey of current practices in instrumental music education, techniques and methods of instrumental music education, and introduction to materials of the music industry designed for school use. Restricted to instrumental music education majors; open to others by special permission only. Two credits. Offered winter semester.

MUS 361 Piano Pedagogy I. A study of fundamentals of piano playing designed for prospective teachers. Includes a practicum in which students do guided teaching. Required of Bachelor of Music students whose primary instrument is piano. Prerequisite: Piano 242 or 245. Three credits. Offered fall semester.

MUS 362 Marching Band Techniques. Designed to acquaint B.M.E. majors with all aspects of today's marching band. Prerequisites: Keyboard and notation skills helpful. Two credits. Offered every other year.

MUS 363 Marching Band Arranging. Development of techniques of arranging music for marching band. A thorough knowledge of all band instruments, including ranges and registers; combinations of instruments; timbre and color of individual instruments as well as sections of instruments. Does not count as required upper-level theory course. Two credits. Offered every other year.

MUS 365 Choral/General Music in the Secondary School. Techniques, trends, and materials in junior and senior high school general and choral music. The adolescent voice, choral programming, the budget process, musicals, and contests and elective music classes. Restricted to music majors and to vocal minors who want a music teaching minor for secondary certification; open to others by special permission only. Two credits. Offered winter semester.

MUS 371 Piano Pedagogy II. A study of intermediate and early-advanced materials for use in private and small group studio teaching. Includes review of journals, current technology, group strategies, and guided teaching. Required of B.M. students whose primary instrument is piano. Prerequisite: 361. Three credits. Offered winter semester.

MUS 380 Special Topics. The opportunity to develop certain advanced skills or study material not regularly offered as part of the music curriculum. Prerequisite: Permission of instructor. One to four credits.

MUS 381 Composition with Electronic Media I. A study of formal and design problems in composing for computers and interactive musical systems. Prerequisite: 282. Three credits. Offered fall semester.

MUS 382 Composition with Electronic Media II. A continuation of MUS 381. A more advanced, aesthetically pointed study of compositional issues involving computers and electronic media. Prerequisite: 381. Three credits. Offered winter semester.

MUS 390 Composition Seminar. Continuation of 290. Interview with instructor required before registering. May be repeated for credit. Three credits. Offered fall and winter semesters.

MUS 399 Special Readings in Music. Independent study in problems of music and music education. To be arranged with the instructor. One to four credits. Offered fall and winter semesters.

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MUS 460 Composition Seminar. Continuation of 390. Interview with instructor required before registering. May be repeated for credit. Three credits. Offered fall and winter semesters.

MUS 495 Analytical Techniques (Capstone). A comprehensive course in analysis, pursued through examination of scores, drawn from a wide range of periods, styles, media, and genres, with an emphasis on structural analysis, tonal relationships, motivic growth and development, and on the exploration of the aesthetic similarities of all music. Three credits.

MUS 499 Independent Study and Research in Music. Advanced independent study in problems of music and music education. To be arranged with the instructor. One to four credits. Offered fall and winter semesters.

Class Instruction in Voice and Instruments

The classes listed below are designed to provide teaching and performance skills in the medium indicated.

MUS 250, 251, Class Voice. One credit each. Offered fall and winter semesters.

MUS 253 Single Reeds. One credit. Offered fall semester.

MUS 254 Double Reeds and Flute. One credit. Offered winter semester.

MUS 255 High Brass. One credit. Offered fall semester.

MUS 256 Low Brass. One credit. Offered winter semester.

MUS 257 Class Percussion. One credit. Offered winter semester.

MUS 258 High Strings. One credit. Offered fall semester.

MUS 259 Low Strings. One credit. Offered winter semester.

MUS 260, 261 Guitar Class.

Private Instruction in Voice and Instruments

MUS 099 Developmental Applied Music. Lessons for music majors or minors who have been accepted conditionally because of a lack of music proficiency on their major instrument or voice. May be repeated. Two non-graduation credits.

MUS 121 Applied Jazz Instruction. Private lesson on jazz piano, guitar, bass, percussion, and other instruments according to student interest and staffing availability. Not offered every semester. May be repeated for credit. Prerequisite: Permission of department chairman. Two credits.

The numbers below indicate half-hour lessons and are offered for two hours credit per semester.

141, 142 Freshman

241, 242 Sophomore

341, 342 Junior

441, 442 Senior

The numbers below indicate one-hour lessons and are offered for four hours credit per semester. Hour lessons are restricted to students admitted to the B.M. program or permission of the faculty.

144, 145 Freshman

244, 245 Sophomore

344, 345 Junior

444, 445 Senior

Students may repeat Music 242 or 245 with credit until able to pass on to the junior level, with the understanding that the entire applied music course series through Music 442 or 445 must be completed.

There is no special instructional fee for applied music. All students who wish to elect applied music must present written permission of the instructor at the time of registration and must register in an appropriate ensemble.

Music

Students in applied music are expected to play a jury at the end of each semester of study.

MUS 343 Half Recital. Preparation for half recital. Prerequisite: Permission of instructor. One credit.

MUS 443 Full Recital. Preparation for full recital. Prerequisite: Permission of instructor. Two credits.

Recital Requirement

Students pursuing a B.M. degree must give a partial recital in their junior year and a full recital in their senior year. Students pursuing a B.A. or B.M.E. degree are required to give a partial recital during their senior year. Recitals, which must be approved by the music faculty, must be given in the student's major performance medium and may not be scheduled during any term in which a student is doing student teaching.

Piano Proficiency Requirement

Because functional piano is so important in music, a basic proficiency level is required. All instrumental majors, regardless of degree program (B.A., B.M., B.M.E.), must complete third semester Keyboard Musicianship (MUS 283) to fulfill their piano proficiency requirement. All vocal majors, regardless of degree program (B.A., B.M., B.M.E.), must complete fourth semester Keyboard Musicianship (MUS 284). All music minors must complete second semester Keyboard Musicianship (MUS 264).

Music Ensembles

Music ensembles at Grand Valley provide a wide range of experience, from symphony to opera to jazz and include the university bands, choirs and orchestra, chamber music, and various jazz groups.

All music ensembles are open to qualified performers across the campus. Traditionally, students majoring in other disciplines have considered these performance activities important to their college careers.

MUS 101 GVSU Singers.* The principal university choir. Prerequisite: Successful audition and permission of instructor. One credit.

MUS 102 GVSU Concert Band.* Offered winter semester. One credit.

MUS 103 GVSU Symphony Orchestra.* Prerequisite: Successful audition or permission of instructor. One credit.

MUS 104 Chamber Music Ensembles. Chamber music groups such as string quartet, woodwind quintet, vocal ensembles, or brass quartet. Corequisite: 101, 102, 103, or 109. One credit.

MUS 105 GVSU Jazz Ensemble. Big jazz band. Prerequisite: Permission of instructor. One credit.

MUS 106 Small Jazz Ensemble. Various small jazz groups dedicated to increasing the knowledge of jazz literature and improving skills in improvisation and ensemble playing. Prerequisite: Permission of instructor. One credit.

MUS 107 GVSU Marching Band.* The university marching band. Two semesters required of B.M.E. woodwind, brass, and percussion majors. Prerequisite: Successful audition at band camp. Offered fall semester only. One credit.

MUS 109 Festival Chorale. A women's ensemble open to campus and community singers. This chorale learns a variety of repertoire and participates in two concerts on campus each semester. One credit.

*Fulfills degree requirements for major ensemble participation.

Natural Resources Management

MUS 110 Collegium Musicum. Performance of older music (mainly before 1700) by students, either singing or playing on period instruments. Prerequisite: Permission of instructor. One credit.

MUS 111 GVSU Basketball Pep Band. This ensemble performs at every home basketball game and, like the Laker Marching Band, is an integral support unit for Athletics. Prerequisites: Audition and permission of instructor. One credit. Offered winter semester.

MUS 112 Symphonic Wind Ensemble.* Enrollment limited to 40 finest wind and percussion instrumentalists at GVSU. Performs most challenging traditional and contemporary band literature. Prerequisite: Audition and permission of instructor. One credit.

MUS 113 GVSU Percussion Ensemble. The GVSU Percussion Ensemble provides students with the opportunity to learn percussion techniques and literature through rehearsal and performance in a chamber setting. The literature performed is selected from the best available compositions for this instrumentation and performed without a conductor. One credit.

MUS 114 GVSU Cello Ensemble. A chamber music experience for 'cellists that develop skills necessary for ensemble performance. Prerequisite: Prior approval of the instructor. One credit.

MUS 115 GVSU Chamber Orchestra. The principal string players of the University-Community Orchestra, plus keyboard and soloists, perform music from all eras without a conductor. Prerequisite: Prior approval of the instructor. One credit.

MUS 116 GVSU Madrigal Ensemble. Sixteen-voice SATB ensemble performing a cappella madrigals and motets of the early periods of music. One credit.

MUS 117 GVSU University Arts Chorale.*Forty-voice SATB ensemble performing choral masterpieces from the Renaissance through the twentieth century. Prerequisites: Audition and permission of instructor. One credit.

MUS 118 Varsity Men. A singing group open to any interested male singer. The ensemble sings a variety of repertoire, including spirituals, barbershop, and folk song arrangements. One credit.

Natural Resources Management (NRM)

Chair: Rogers. Professor: Northup; Associate Professor: MacDonald; Assistant Professors: Griffin, McCracken, Menon.

Degree offered: B.S. in natural resources management.

The program in natural resources management offers students scientific skills training with quantitative and qualitative decision-making techniques. The bachelor of science degree program requires a core of science courses from biology, chemistry, geology, mathematics, and statistics. On this foundation, interdisciplinary courses are designed to integrate whole systems concepts with practical applications in the study of real-world problems. Management alternatives are emphasized for meeting contemporary societal needs. The curriculum is designed to provide students with the skills to promote the intelligent use and preservation of natural resources in professional as well as volunteer service and advocate capacities. With guidance from their advisor, students may develop customized programs focused in terrestrial or aquatic resource management, resource information technology, or related environmental science areas.

Workers in the complex field of resource management need to understand local, state, and national economic and environmental values, priorities, and policies.

*Fulfills degree requirements for major ensemble participation.

Natural Resources Management

The graduates of the NRM program will be prepared to assume responsibility for the management of natural resources on either private or public lands. They will be prepared to deal with optimizing and balancing the use and production of commodities such as soils, water, timber, rangeland, and minerals with the less tangible values of scenery, air and water quality, recreation, wildlife, and social well-being. Graduates will realize the importance of being responsive and alert to the changing economic needs of a dynamic society, yet sensitive to environmental quality problems. Students in natural resource management may gain practical work experience through internships with nonprofit organizations, government, and industry. In addition, they can arrange special studies or research with the faculty on topics of current concern, ranging from the means of predicting and increasing ecosystem productivity to the utilization of wetlands for wastewater polishing.

Select project opportunities are available. Students chosen to participate in a select project will be awarded NRM 499 credit for work at some location outside the home department. The project will be well defined and the required product may be a report, a physical model, or a computer program.

Requirements for a Major

Natural Resources Management majors must fulfill the requirements below. Emphases are optional.

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. Completion of B.S. degree cognates, including MTH 122, NRM 320, and BIO 460.
3. Completion of 33 additional hours of NRM courses, including NRM 150 and 495 (Capstone).
4. Completion of Natural Resources Management cognate courses (24 credits):
BIO 111 General Biology I
BIO 112 General Biology II
BIO 215 General Ecology
CHM 109 Introductory Chemistry or CHM 115 Principles of Chemistry I
GEO 111 Exploring the Earth
STA 215 Introductory Applied Statistics
5. Thirteen additional semester hours of cognates selected from BIO 222 and above, CHM 116 and above, CS 150 and above, GEO 112 and above, MTH 123 and above, GPY 307 or 407, STA 216 and above. Other courses may be selected in consultation with and approved by the student's faculty advisor.

Sample Curriculum

First Year

NRM 150 Introduction to Natural Resources
MTH 110 Algebra
MTH 122 College Algebra
WRT 150 Strategies in Writing
BIO 111 General Biology I
BIO 112 General Biology II
CHM 109 Introductory Chemistry
or CHM 115* Principles of Chemistry I
General education courses

Second Year

NRM 250 Resource Measurement
and Maps
NRM 281 Principles of Soil Science
NRM 350 Aerial Photography and Remote
Sensing of the Environment
BIO 215 General Ecology
STA 215 Introductory Applied Statistics
GEO 111 Physical Geology
General education courses

Natural Resources Management

Third Year

NRM 320 Introduction to Resource Systems
NRM 451 Resource Management Policy
NRM 452 Watershed and Wetland Management
BIO 460 Productivity of Ecosystems
NRM 462 Forest Ecosystem Management
General education courses
Cognate courses
Elective

Fourth Year

NRM 495 Trends in Resource Management (Capstone)
NRM 410 Environmental Impact Assessment
NRM 494 Senior Seminar
NRM 481 Soils and Soil Classification
NRM 484 Land Reclamation
or NRM 486 Soils and Landforms Analysis
Electives
Cognate courses

Emphases (optional):

1. Ecosystem Science and Management:

This emphasis is designed for students interested in a career in the traditional biological and ecological areas of natural resources management. These courses will prepare students for entry-level professional positions, graduate study, and community involvement in areas such as forestry, fisheries, wildlife, soil conservation, watershed management, and related natural resources fields. The emphasis retains flexibility so students also can build complementary strengths in aquatics, wildlife, soils, or resource policy, or develop additional skills in spatial or quantitative methods. In order to complete the requirements for this optional emphasis, students must select NRM 250, 281, 350, 452, and 462 as part of their hours of NRM electives (see #3 under Requirements for a Major) and BIO 333, 362, and 408 as part of their cognate electives (see #5 under Requirements for a Major). Completion of this emphasis does not require any credits in addition to those required for the general NRM degree program.

2. Environmental Science:

This emphasis is designed for students interested in a career in the areas in which traditional natural resources management and environmental science overlap, while providing an integrated and broad education not limited to these areas. Making environmental decisions requires scientific knowledge about the natural world, as well as an understanding about the ways in which humans interact with the natural world. Students selecting this emphasis will examine effects of human actions on the environment and the means by which policies, regulations, and decisions influence human actions. Graduates are likely to pursue graduate studies and careers in field or laboratory science, research institutions, regulatory agencies, nonprofit organizations, or private consulting firms that highlight environmental quality. Students selecting this emphasis are required to take the following set of courses as part of their NRM and cognate courses: CHM 115 and 116 (CHM 109 does not count for the emphasis); NRM 250, 281, 330, 451, and 452; and at least eight credits from BIO 338, 357, 440, 450, 470; CHM 221, 222, 231, 232, 321, 322; GPY 307; GEO 112, 320, 430, 440, 445; OSH 414; and PHY 200. In addition, at least seven credits from other NRM

*Only students who plan to take additional chemistry courses as cognates should take CHM 115.

Natural Resources Management

courses are required to provide a minimum of 40 hours of NRM and 40 hours of cognate coursework each, as required for the NRM BS degree. Completion of this optional emphasis does not require any credits above the general NRM degree.

3. Resource Information Science:

This emphasis is designed for students interested in a career in resource information technologies such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), and remote sensing. Such technologies have increasingly widespread applications in natural resource management. This emphasis will enable students to specialize in the use of these technologies for spatial analysis and in supporting decision-making for natural resource management. The emphasis retains flexibility so that students can build complementary strengths in areas of natural resources such as aquatic systems, forests, soils, wildlife, or policy. In addition to courses required for the general NRM degree, students are required to take NRM 250, NRM 350, NRM 395, CS 150 or 160, CS 231, CS 233, and GPY 307. In addition to the specifically required NRM and cognate courses, students must select at least 15 credits from other NRM courses to provide a minimum of 40 hours of NRM coursework as required for the NRM BS degree. Completion of this emphasis does not require any additional credits over those required for the general NRM degree program.

Requirements for a Minor

Students who wish to minor in natural resources management must complete a minimum of 24 hours in the program, including NRM 150 and 10 hours of 300 and 400-level courses and no more than three credits of 490 and 499.

Courses of Instruction

Lecture, discussion, and laboratory hours are given in parentheses at the end of each course description. Courses may be offered during the spring/summer session depending on student demand and/or faculty availability.

NRM 140 The Climatic Factor. A study of the atmosphere, broad aspects of weather and climate, microclimatology, and the geography of climate and effects on terrain, vegetation, and people. Fulfills Physical Sciences Foundation. (3-0-2). Four credits. Offered fall, winter, and occasional summer semesters.

NRM 150 Introduction to Natural Resources. Survey of natural resource issues and environmental problems. The course will use an integrated approach involving concepts from natural and social sciences to provide a foundation for understanding past, present, and future natural resource issues including biodiversity, land use, water and air pollution, human population, energy use, and waste management. (0-3-0). Three credits. Offered winter semester.

NRM 180 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisite: variable. One to four credits.

NRM 240 Principles of Climatology. The atmosphere, broad aspects of weather and climate, microclimatology, and paleoclimatology. Instrumentation, data presentation, ecoclimate, and microclimatological field observations. Lecture, laboratory, and field trips. Prerequisite: One course in natural science. (3-0-2). Four credits.

NRM 250 Resource Measurement and Maps. Techniques of field reconnaissance survey and sampling on a quantitative basis, including land survey, mapping, and map interpretation, plot and plotless sampling, and establishment of data points. (2-0-6). Four credits. Offered fall semester.

NRM 280 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisite: variable. One to four credits.

Natural Resources Management

NRM 281 Principles of Soil Science. Aspects of the physical, chemical, and biological properties of soils. Prerequisites: High school chemistry or CHM 109 and GEO 111. (3-0-3). Four credits. Offered fall semester.

NRM 320 Introduction to Resource Systems. Basic principles, terminology, and methodology for the analysis and modeling of resource systems, including natural environments and human ecosystems. Prerequisite: BIO 215 and MTH 122. (2-0-3). Three credits. Offered winter semester.

NRM 350 Aerial Photography and Remote Sensing of the Environment. Theoretical considerations and practical applications in the use of remote sensing in terrain evaluation and environmental inventory, including aerial photography, landsat imagery, thermal infrared, and radar imagery. Prerequisite: NRM 250, GEO 111, or permission of the instructor. (2-0-4). Four credits. Offered winter semester.

NRM 380 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisite: Junior or senior status in biology, geology, resource management, or permission of instructor. One to four credits.

NRM 395 GIS Applications in Resource Management. Explores applications of Geographic Information Systems (GIS) in natural resources management. Students will work on projects and examine several case studies in which GIS is used for the management of natural resources, including watershed analysis, environmental impact of timber sales, habitat loss, and endangered species conservation. Prerequisites: GPY 307 and NRM 250 or permission of instructor. (2-0-3). Offered winter semesters.

NRM 399 Readings in Resource Management. Independent readings on selected topics. Credit and topic must be arranged with the appropriate staff member before registering. One to three credits (no more than three credits can be applied to the major, none to the minor). Offered every semester.

NRM 410 Environmental Impact Assessment. Historical, legal, and administrative aspects of impact statements. Development of methods to gather and analyze data for impact statements. Prerequisite: Senior status in natural resources management, biology, geology, political science, or public administration. (3-0-2). Four credits. Offered winter semester alternate years.

NRM 451 Natural Resource Policy. Study of how natural resource policy is developed and implemented in the United States. The evolution of public policies with respect to public land acquisition and disposal, forestry, rangeland, minerals, parks, wilderness, fisheries, wildlife, and water are discussed. Part of Earth and Environment theme. Prerequisite: Junior standing. (4-0-0). Four credits. Offered fall semester.

NRM 452 Watershed and Wetland Management. Theory and application of wild land and urban hydrology, including the values of watersheds and wetlands as domestic ecosystems. Prerequisites: GEO 111, MTH 122 or 125, NRM 281. (3-0-3). Four credits. Offered fall semester.

NRM 462 Forest Ecosystem Management. Traditional forestry practices will be introduced, with emphasis on how established practices can be integrated with the concepts of sustainable forestry and ecosystem management. The presentation, discussion, and synthesis of new approaches to the management of forest ecosystems will be especially stressed. Prerequisites: BIO 215 and junior or senior standing in biology or natural resources management, or permission of instructor. (3-0-3). Four credits. Offered winter semester.

NRM 480 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisite: variable. One to four credits.

NRM 481 Soils and Soil Classification. Processes of soil formation, the occurrence of soils of the landscape, and soil classification. Prerequisite: NRM 281. (3-0-3). Four credits. Offered fall semester.

NRM 484 Land Reclamation. Concepts and processes used in land reclamation, emphasizing soils and landforms disturbed by such activities as mining, construction, and agriculture; the techniques of revegetation of these soils. Prerequisites: NRM 281 and BIO 215. (3-0-3). Four credits. Offered winter semester.

NRM 486 Soils and Landforms Evaluation. A study of the recognition and complexity of landforms and methods for determining land capability and utilization. Topics include

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methods of total site evaluation, scenic and visual landscape appraisal, the data base for land use decision models, and the presentation of the results of land suitability evaluation. Prerequisites: NRM 281; NRM 250 or GPY 307; 350 recommended. (2-0-4). Four credits.

NRM 490 Internship in Resource Management. Internships are available in all areas of specialization. Location of placement and credit must be arranged with the appropriate faculty before registration. Prerequisite: Junior or senior status in resource management. Offered each semester. One to five credits (no more than five credits in 490 and 499 can be applied to the major; three to the minor).

NRM 494 Senior Seminar. Student presentation and discussion and guest speakers on current interest areas in resource management. Open to senior majors, and to others by permission of the instructor. (2-0-0). One credit. Offered fall and winter semesters.

NRM 495 Trends in Natural Resource Management (Capstone). A comprehensive and integrative analysis of the fundamental assumptions, issues, and problems of natural resources management. Examines the historical roots of natural resource management, identifies factors that caused natural resource management to change, and explores proposals for managing natural resources in the future. Prerequisites: Completion of 20 credits in NRM, STA 215. (0-4-0). Four credits. Offered winter semesters.

NRM 499 Research in Resource Management. Research conducted individually with faculty supervision and/or in cooperation with other majors in resource management. Research projects and credit hours must be approved by the appropriate faculty before registration. Prerequisite: Junior or senior status in resource management. One to three credits. Limits: Three credits toward major or minor; five credits of NRM 490 plus NRM 499 toward major or three toward minor.

NRM 540 Weather and Climate. This course is for certified teachers who wish to investigate the underlying causes of changes in weather and climate. Concepts include composition and physical behavior of the atmosphere, patterns, measurement, the water cycle, severe weather, and changes over time. Tools include direct observation, instruments, maps, graphs, computers, and satellite images. Prerequisites: teacher certification. (2-0-3). Three credits. Offered fall semesters of odd-numbered years.

NRM 580 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisite: variable. One to four credits.

NRM 680 Special Topics. Lecture, discussion, laboratory, or field experience (or any combination of the preceding) in specific areas of resource management. Prerequisite: variable. One to four credits.

The Kirkhof School of Nursing (NUR)

Dean: Gendler. Professors: Bond, Kline, Nagelkerk, Underwood; Associate Professors: Bostrom, Coviak, Droste-Bielak, Eribes, French, Grinstead, Leder, Litwack, Schafer; Assistant Professors: Brintnall, Britton, Earl, Jensen, Jewell, Martin, Ryan, Scott, Steele; Instructor: Bambini; Learning Laboratory Coordinator: Perkins ; Student Support Services Coordinators: Bartman, Moerland, Pratt; Coordinator of Continuing Nursing Education: Dunlap. Coordinator of Off Campus Programs: Reick; Coordinator of Nursing Center for Global Health: Jewell; Coordinator of Standardized Patient Program: Ronning.

Degrees offered: B.S.N., M.S.N., M.S.N./M.B.A.; B.S.N. completion with an option for a B.S.N./M.S.N. articulated program for Registered Nurses and an M.S.N. option for Registered Nurses with degrees in other disciplines, and a B.S.N. with a B.S.N./M.S.N. articulated option for students with degrees in other disciplines.

Accreditation: National League for Nursing Accrediting Commission, 61 Broadway, New York, New York 10006. Telephone: (212) 363-5555.

The Kirkhof School of Nursing offers educational opportunities to men and women who wish to prepare themselves for the responsibilities of professional nursing practice in a dynamic and changing health care system.

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Continuing education courses and workshops are also offered to assist nurses in updating their knowledge and in learning new roles and functions.

The baccalaureate program is fully accredited by the National League for Nursing Accrediting Commission and is approved by the Michigan State Board of Nursing. Graduates are prepared to take the licensure examination for registered nurses. The master's program is fully accredited by the National League for Nursing Accrediting Commission.

Mission Statement and Philosophy

Mission:

Kirkhof School of Nursing's primary mission is to provide quality nursing education to a diverse population of students. KSON strives to improve the well being of people through leadership in professional practice and research.

Core Values

Educational Excellence

Student-Focused

Global Health

Interdisciplinary Collaboration

Research to Support Practice

Philosophy:

The Kirkhof School of Nursing as an academic unit of Grand Valley State University supports the University's goals of education, research, and public service. The curricula provide educational experiences that encourage intellectual achievement, critical thinking, and self-expression while maintaining emphasis on the importance of human values and cultures. The School initiates and maintains relationships with West Michigan, national, and global communities to share resources and knowledge in approaches to health care. The faculty role is to educate nurses who promote health and wellness and diagnose and treat a wide range of human responses to actual and potential health problems while holding the highest regard for those in their care.

The baccalaureate degree provides the base for professional practice. Graduates of this program function as generalists and provide comprehensive care to individuals, families, groups, and communities. The master's degree provides nurses with advanced knowledge for roles in education, administration, case management, and clinical practice.

The faculty subscribe to the following beliefs about persons, environment, health, nursing, and nursing education. These beliefs evolve in response to the changing needs of society and the discipline.

Persons

The faculty believe in the innate worth and dignity of individuals. Individuals have a uniqueness that is the product of genetic heritage and dynamic interaction with the environment across the lifespan. As integrated physiological, psychological, sociocultural, spiritual beings, they exhibit a propensity for holistic growth. Individuals form familiar attachments in which certain thoughts, feeling, and actions are shared and valued in common. These attachments are manifested as families, groups, and communities, collectively known as society. The family and community are primary social systems essential for the fulfillment of basic needs and personal goals. Parameters for human relationships, behaviors, and modes of action are socially constructed and develop over time.

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Environment

Environment includes elements within and external to persons. These elements are multifaceted and complex and include physical, psychological, sociocultural, and spiritual aspects. The interaction of these elements creates a dynamic context in which health care is delivered.

Health

Health is the ability to function across the lifespan at optimal capacity as perceived by the individual, family, group, or community. Health is a complex phenomenon influenced by such factors as age, development, gender, culture, ethnicity, spirituality, global interaction, and lifestyle. When limitations in functional capacity are perceived, health is compromised.

Nursing

Nursing is a profession and a discipline. It is the application of critical thinking, effective communication, comprehensive assessment and clinical skills within ethical and legal parameters. Within a holistic perspective, the professional nurse acts independently and collaboratively to promote health, reduce health risk, maintain optimal capacity to function, and maximize the quality of life throughout the lifespan. Nursing actively influences policy making on local, national, and global levels to promote health across populations. Active participation in professional organizations is the cornerstone to enhancement of high quality, cost-effective health care, and advancement of the profession.

Nursing Education

The aim of nursing education is to facilitate the acquisition of knowledge, attitudes, values, and skills for the development of critical thinking, creativity, leadership, and autonomy inherent in the practice of professional nursing. The faculty believe that nursing education is based on a solid foundation from nursing, the liberal arts, humanities, and sciences. The faculty believe that adult learning is a self-directed, lifelong process of intellectual curiosity that is the result of informed choice. Within this dynamic process, faculty and learners negotiate desired goals through a variety of structured and unstructured learning experiences to develop the roles of provider of care, coordinator of care, and member of the discipline.

Undergraduate Program

The undergraduate program is designed for all qualified applicants, including high school graduates, nurses holding diplomas or associate degrees, practical nurses, and persons holding degrees in other fields.

Nursing majors must complete a core of courses in the humanities and the social, physical, natural, and health sciences that provides a strong scientific and humanistic foundation upon which the clinical nursing courses are based. Before graduation, students must also have completed the skill and general education requirements of the university. (See Degree Requirements—Undergraduate, in the General Academic Regulations Section in this catalog.)

The baccalaureate curriculum provides learning experiences that combine the liberal arts and basic sciences with nursing theory and clinical practice. Students are prepared to provide nursing interventions for individuals, families, and communities at a beginning practitioner level. Students are scheduled for clinical practice at a variety of community hospitals and health care agencies, including home care and ambulatory settings.

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The program stresses health promotion and illness prevention as well as care of the sick. The ability to think critically to solve problems, formulate concepts, make judgments, analyze, summarize, and form valid conclusions is emphasized. This focus provides the student with the characteristics necessary for professional development and personal enrichment in a changing society.

The baccalaureate degree in nursing prepares graduates to fulfill the professional nursing roles of providers of care, managers of care, and members of the profession.

Upon graduation, KSON graduates will

1. provide nursing care based on clinical judgments within parameters of functional capacity in multiple settings about individuals, families, groups, and communities incorporating knowledge from the liberal arts and knowledge unique to nursing. [provider of care]
2. coordinate health care with individuals, families, groups, and communities across the lifespan, using communication skills, in collaboration with members of the health care teams. [coordinator of care]
3. assume ethical, legal, and professional accountability for the development and practice of nursing in a changing health care environment. [member of the profession]

Admission

Students select nursing as their major as freshmen. Those students are assigned to a faculty member in nursing who will serve as their academic advisor for the remainder of their program. Students who have not declared their major may do so at the School of Nursing Office, Henry Hall.

In order to enroll in NUR 315, students must meet the following criteria: (1) GPA of 2.7 or above and (2) completion of core courses with a grade of C or above. The School of Nursing course repeat policy is as follows: no more than one repeat per required course.

The following items are required before the student begins Nursing 315.

1. Health and immunization reports.
2. Certification in cardiopulmonary resuscitation (CPR).
3. Health insurance.

Students should be aware that the State Board of Nursing reviews the records of all graduates who have completed a nursing program to determine eligibility to write the National Council Licensure Examination (N-CLEX). The State Board of Nursing retains the right to deny a graduate permission to write the licensure examination if he or she has been convicted of a crime.

Career Opportunities

Professional nurses perform a wide variety of functions, including direct patient care, health care counseling, and leadership in providing and managing care both for individuals and groups of clients. Nurses are members of health care teams that also include physicians, physical and occupational therapists, respiratory therapists, social workers, psychologists, dietitians, and others. They may work as hospital nurses, home nurses, office nurses, community health nurses, school nurses, nurse educators, and occupational or industrial nurses.

Nursing

Major Requirements

The Kirkhof School of Nursing undergraduate program is in transition to a new curriculum. Freshman students entering GVSU in the fall of 2001 will be under the new curriculum as described below.

Completion of the baccalaureate in nursing requires:

1. General university requirements as identified in the General Academic Regulations section in this catalog.

2. Required core courses with a minimum grade of C (2.0).

In order to progress in the nursing program, a grade of C (2.0) is required in core and nursing courses.

BIO 112 General Biology II
BIO 355 Human Genetics
CHM 109 Introductory Chemistry
CHM 231 Introductory Organic Chemistry
CHM 232 Biological Chemistry
HS 208 Human Anatomy
HS 212 Introductory Microbiology
HS 213 Laboratory in Microbiology
HS 280 Human Physiology
HS 281 Human Physiology Lab
HS 305 Clinical Nutrition
HS 309 Laboratory in Human Anatomy
HS 310 Basic Pathophysiology
HS 311 Pharmacological Aspects of Health Science
MTH 110 Algebra
PSY 101 Introductory Psychology
PSY 364 Life Span Developmental Psychology
STA 215 Introductory Applied Statistics
WRT 150 Strategies in Writing

3. Required nursing courses with a minimum grade of C (2.0).

NUR 120 Explorations in Nursing
NUR 220 Self-Health and Wellness
NUR 315 Health Assessment
NUR 320 Theoretical Aspects of Nursing I
NUR 321 Clinical Nursing I
NUR 350 Theoretical Aspects of Nursing II
NUR 351 Clinical Nursing II
NUR 420 Theoretical Aspects of Nursing III (SWS)
NUR 421 Clinical Nursing III
NUR 435 Research Application in Nursing Practice
NUR 450 Theoretical Aspects of Nursing IV
NUR 451 Clinical Nursing IV

Sample Curriculum

First Semester	Credits	Second Semester	Credits
MTH 110 Algebra(BSK)	4	NUR 120 Explorations in Nursing	2
BIO 112 General Biology (FC/Life Sci)	4	WRT 150 Strategies in Writing (BSK)	4
PSY 101 Introductory Psychology (FC/SS)	3	HS 208 Human Anatomy	3
CHM 109 Introductory Chemistry (FC/Phy Sci)	5	CHM 231 Introductory Organic Chemistry	4
	<u>16</u>		<u>13</u>

Nursing

Third Semester	Credits	Fourth Semester	Credits
HS 280 Human Physiology	3	HS 212 Introductory Microbiology	3
HS 281 Human Physiology Laboratory	1	HS 213 Microbiology Lab	1
CHM 232 Biological Chemistry	4	BIO 355 Human Genetics	
General Education (FC/Arts)	3	HS 309 Laboratory in Human Anatomy	1
General Education (FC/SS)	3	NUR 220 Self-Health and Wellness	
PSY 364 Developmental Psychology	3	General Education (FC/Phi/Lit)	3
	17		13

Fifth Semester	Credits
WRT 305 Writing in the Disciplines (BSK)	3
HS 305 Clinical Nutrition	3
HS 310 Basic Pathophysiology	
NUR 315 Health Assessment	3
General Education (C/Hst)	3
	15

Sixth Semester	Credits	Seventh Semester	Credits
NUR 320 Theoretical Nursing	3	NUR 350 Theoretical Nursing II	4
NUR 321 Clinical Practice I	4	NUR 351 Clinical Practice II	7
HS 311 Pharmacology	3	NUR 435 Research Applications	2
STA 215 Statistics (FC/Mth)	3	General Education course (World Perspectives)	3
General Education (U.S. Diversity)	3		16
	16		

Eighth Semester	Credits	Ninth Semester	Credits
NUR 420 Theoretical Nursing III (SWS)	4	NUR 450 Theoretical Nursing IV (Capstone)	4
NUR 421 Clinical Practice III	6	NUR 451 Clinical Practice IV	7
General Education (theme course)	3	General Education (theme course)	3
	13		14
			133

Second Degree Students

The School of Nursing offers a B.S.N. and an articulated B.S.N./M.S.N. option for persons with a baccalaureate degree in another discipline. This program option is designed for part-time or full-time study. The required plan of study can be shortened by transfer of credits.

Students in this program option must be admitted to Grand Valley State University before seeking admission to the School of Nursing. Students are accepted on the basis of GPA and completion of required prenursing courses.

Nursing and cognate courses required for the B.S.N.:

The Kirkhof School of Nursing undergraduate program is in transition to a new curriculum. Second-degree students will be under the new curriculum beginning in spring/summer of 2002. The current second degree curriculum is described below.

Nursing

NUR 330 Theoretical Aspects of Nursing I
NUR 331 Clinical Nursing I
NUR 340 Theoretical Aspects of Nursing II
NUR 341 Clinical Nursing II
NUR 430 Theoretical Aspects of Nursing III (SWS)
NUR 431 Clinical Nursing III
NUR 435 Research Application in Nursing
NUR 440 Theoretical Aspects of Nursing IV
NUR 441 Clinical Nursing IV
HS 310 Basic Pathophysiology
HS 311 Pharmacological Aspects of Health Science
STA 215 Statistics I

Second degree students who elect the B.S.N./M.S.N. articulated option may enroll in a selected number of graduate courses while completing the B.S.N.

NUR 529 Health Care System, Policy, and Finance
NUR 690 Research Development in Nursing
HS 608 Pathologic Physiology or NUR 622 Advanced Pathophysiology I

Students who plan an M.S.N. exit must apply to the M.S.N. program and obtain preliminary admission to the program prior to taking graduate level courses and

1. Achieve a scholastic GPA of 3.0 or higher in upper-division baccalaureate coursework.
2. Satisfactorily complete the Graduate Record Exam's (GRE) general aptitude section.
3. Submit an essay describing professional and educational goals.
4. Satisfactorily complete the National Council Licensure Examination for R.N.s (NCLEX-RN).

Registered Nurses

The School of Nursing offers programs of study specifically designed for R.N.s to obtain the B.S.N. and M.S.N. The programs are designed for part-time or full-time study. Individual needs and appropriate alternatives for program planning are examined. Options for part-time study make degree completion more accessible to employed nurses. An accelerated RN-MSN option is currently being developed with a tentative beginning target date of Fall 2002.

Registered nurses are given advanced standing in the program through the following mechanisms:

1. Direct transfer of credits.
2. University credits for nursing courses.
3. Credit by examination.
4. National certification.

Students must be admitted to Grand Valley State University before seeking admission to the School of Nursing. Students are accepted on the basis of GPA and completion of required prenursing courses.

Most registered nurses have already completed courses in anatomy and physiology, inorganic chemistry, psychology, growth and development, microbiology, and English composition. Additional course requirements (minimum grade of C) may include:

MTH 110 Algebra
STA 215 Statistics I

Nursing

CHM 230 Introduction to Organic and Biochemistry
HS 310 Basic Pathophysiology
SS 323 The Family
BIO 355 Genetics
General education courses
Theme courses
Electives

Nursing courses:

NUR 310 Professional Nursing Seminar
NUR 400 Health Assessment Skills for Nurses
NUR 410 Role Transition
NUR 425 Care of Clients with Chronic Conditions
NUR 426 Community Health Nursing Practice
NUR 435 Research Application in Nursing Practice (SWS)
NUR 455 Leadership and Nursing Care Management

R.N. students are required to fulfill the university basic skills and general education requirements listed elsewhere in this catalog and complete a minimum of 120 semester hours of credit for graduation.

Registered nurses who elect the B.S.N./M.S.N. articulated option will enroll in a selected number of graduate courses while completing the B.S.N.:

NUR 521 Theoretical Perspectives I
NUR 529 Health Care System, Policy, and Finance
HS 608 Pathologic Physiology or NUR 622 Advanced Pathophysiology I

R.N.s who plan an M.S.N. exit must apply to the M.S.N. program and obtain preliminary admission to the program prior to taking graduate level courses and

1. Achieve a scholastic GPA of 3.0 or higher in upper-division coursework.
2. Satisfactorily complete the Graduate Record Exam's (GRE) general aptitude section.
3. Submit an essay describing professional and educational goals.

R.N.s who want the M.S.N. degree should apply to the graduate program by September 15 of the final year of their B.S.N. program.

R.N. to M.S.N. Option for Nurses with Non-Nursing Bachelor's Degrees

The School of Nursing offers an M.S.N. option for nurses with a non-nursing baccalaureate degree. This program option is designed for part-time or full-time study. The required plan of study can be shortened by transfer of credits.

Students in this program option must be admitted to Grand Valley State University before seeking admission to the School of Nursing. Students are accepted on the basis of GPA and completion of required undergraduate courses in the Kirkhof School of Nursing R.N./B.S.N. program.

Nursing and cognate courses required for application to the M.S.N. program:

NUR 400 Health Assessment Skills for Nurses
NUR 410 Role Transition
NUR 426 Community Health Nursing Practice
HS 310 Basic Pathophysiology
STA 215 Statistics I

Registered nurses with a non-nursing baccalaureate degree who elect the M.S.N. option may enroll in a selected number of graduate courses while completing the M.S.N. prerequisites.

Nursing

NUR 529 Health Care System, Policy and Finance
NUR 690 Research Development in Nursing
HS 608 Pathologic Physiology or NUR 622 Advanced Pathophysiology I

Students who plan an M.S.N. exit must apply to the M.S.N. program and obtain preliminary admission to the program prior to taking graduate level courses and

1. Achieve an undergraduate scholastic GPA of 3.0 or higher in upper-division course work.
2. Satisfactory performance on the Graduate Record Examination (GRE) general aptitude section.
3. Current licensure as a Registered Nurse in the State of Michigan.
4. Professional competence as documented by three academic and/or employment references.
5. A 300–500-word essay describing professional and educational goals.
6. A personal interview (possible requirement).

Graduate Program

The Kirkhof School of Nursing offers a program of graduate study leading to a master of science in nursing degree (M.S.N.). Five areas of clinical emphases are offered: Adult/Elderly, Child, Family, Women, and Mental Health, some on a rotating basis. The program also prepares students for roles in nursing administration, case management, nursing education, or advanced practice nursing. A combination M.S.N./M.B.A. is offered in conjunction with the Seidman School of Business.

The advanced practice nurse (APN) option prepares students for clinical nurse specialist roles or nurse practitioner roles in acute or primary care. All students must complete a scholarly project (thesis, nursing protocol, research practicum, or comprehensive examination).

The curriculum provides learning in three components: nursing theory and research, clinical emphasis, and functional role preparation. Learning takes place in the classroom and in supervised practica that encourage individuality, critical analysis, and collaboration with other members of the health care team.

Upon graduation, master's graduates, within the functional roles of education, administration, case management, and practice will

1. Apply advanced knowledge synthesized from nursing and related disciplines in caring for clients in a specialized area of practice. [provider of care]
2. Assume leadership roles in collaboration with other professionals and consumers to improve health care. [coordinator of care]
3. Create a climate that supports scholarly inquiry to address issues central to nursing. [research of care]
4. Contribute to the advancement of the nursing profession. [member of the profession]

Admission

1. Baccalaureate degree from a nationally accredited program or option for nurses with non-nursing baccalaureate degrees.
2. Undergraduate scholastic GPA of 3.0 or higher in upper-division coursework.
3. Completion of introductory course in statistics that includes both descriptive and inferential statistics (through tests).

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4. Satisfactory performance on the Graduate Record Examination (GRE), general aptitude section.
5. Current licensure as a registered nurse in the state of Michigan.
6. Professional competence as documented by three academic and/or employment references.
7. Submission of a 300–500-word essay describing professional and educational goals.
8. A personal interview may be required. Applicants will be selected for admission on a priority system based on the above criteria.

Career Opportunities

The M.S.N. program is designed to prepare nurses for advanced clinical practice and entry level leadership roles in nursing education, nursing administration, and case management. The overall goal of the program is to improve the practice and delivery of health care to individuals and families. The atmosphere of the program encourages a free and stimulating exchange of ideas, fosters research attitudes and skills, and enhances the development of innovative professional roles.

Major Requirements

M.S.N. students must complete the following coursework*:

Research—Theory: (24–28 credits)

- NUR 521 Theoretical Perspectives in Nursing I
- NUR 522 Theoretical Perspectives in Nursing II
- NUR 622 Advanced Pathophysiology I
- NUR 623 Advanced Pathophysiology II
- NUR 529 Health Care System, Policy, and Finance
- NUR 531 Professional Role Development
- NUR 530 Advanced Nursing Strategies
- NUR 690 Research Development in Nursing
- STA 610 Applied Statistics for Health Professions

Research Sequence Options

- NUR 694 Thesis Preparation and NUR 695 Master's Thesis
- NUR 692 Nursing Protocol Exploration and NUR 693 Nursing Protocol Development
- NUR 696 Nursing Research Practicum (four credits or two credits plus related elective)
- NUR 697 Nursing Comprehensive Examination (one credit plus two electives)

APN CORE (APN students must complete entire core, others noted) (five credits)

- NUR 620 Clinical Pharmacology (Required by Education and Case Management. Administration may substitute elective, not required for MSN/MBA).
- NUR 610 Advanced Assessment

APN Clinical Emphasis:

Adult/Elderly (16 credits)

- NUR 654 Clinical Practicum I: Adult/Elderly
- NUR 655 Clinical Practicum II: Adult/Elderly
- NUR 656 Clinical Practicum III: Adult/Elderly

Child (16 credits)

- NUR 657 Clinical Practicum I: Child
- NUR 658 Clinical Practicum II: Child
- NUR 659 Clinical Practicum III: Child

*A grade of at least a B (3.0) must be achieved in all graduate courses.

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Family (16 credits)

NUR 670 Clinical Practicum I: Family
NUR 671 Clinical Practicum II: Family
NUR 672 Clinical Practicum III: Family

Women (16 credits)

NUR 673 Clinical Practicum I: Women
NUR 674 Clinical Practicum II: Women
NUR 675 Clinical Practicum III: Women

Mental Health (16 credits)

NUR 676 Theoretical Perspectives: Mental Health
NUR 677 Clinical Practicum I: Mental Health
NUR 678 Clinical Practicum II: Mental Health
NUR 679 Clinical Practicum III: Mental Health

Clinical Pharmacology required only for Advanced Practice Nurse (APN), Education, and Case Management Administration may substitute elective; not required for MSN/MBA.

Functional Role Component:

Nursing Education (13–15 credits)

NUR 640 Nursing Education Program Development
NUR 642 Teaching Health Professionals
NUR 644 Teaching Practicum
Educational Cognate
Elective

Nursing Administration (14–15 credits)

NUR 646 Nursing Administration
NUR 648 Nursing Administration Practicum
PA 614 Organization Theory
PA 632 Health Services Financial Management
Elective

Case Management (14 credits)

NUR 660 Case Management Foundations I
NUR 661 Case Management Foundations II
NUR 662 Case Management Skills
NUR 663 Resource Management in Health Care
NUR 664 Case Management Practicum

M.S.N./M.B.A. Program

The Kirkhof School of Nursing and Seidman School of Business offer a combined Master of Science in Nursing and Master of Business Administration.

(M.S.N./ M.B.A.). Persons wishing this degree must meet the admission requirements of both schools, with the exception that satisfactory performance on only the Graduate Record Exam (GRE), rather than the GMAT, is required. Applicants for the M.S.N./M.B.A. may be admitted to the joint program or to either the M.S.N. or the M.B.A., depending on each division's admission committee review and decision. The combined M.S.N./M.B.A. is designed to prepare graduate nurses for professional opportunities in health care delivery systems.

All M.S.N./M.B.A. candidates must complete the M.B.A. background requirements listed in the business section of this catalog. Also required are the following four three-credit courses:

BUS 601 The Business Plan
BUS 631 Leadership and Organizational Dynamics

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BUS 671 Global Competitiveness
BUS 681 Strategy

Candidates must complete at least three of the following five three-credit M.B.A. courses:

ACC 611 Managerial Accounting
FIN 621 Financial Policy for Managers
ECO 641 Business Economics and Strategy
MKT 651 Marketing Management
MGT 667 Service Management

Candidates must complete the following M.S.N. courses:

NUR 521 Theoretical Perspectives in Nursing I
NUR 522 Theoretical Perspectives in Nursing II
NUR 622 Advanced Pathophysiology I
NUR 623 Advanced Pathophysiology II
NUR 529 Health Care System, Policy and Finance
NUR 531 Professional Role Development
NUR 530 Advanced Nursing Strategies
NUR 690 Research Development in Nursing
STA 610 Applied Statistics for Health Professions

Research Sequence Options

NUR 694 Thesis Preparation and NUR 695 Master's Thesis
NUR 692 Nursing Protocol Exploration and NUR 693 Nursing Protocol Development
NUR 696 Nursing Research Practicum (four credits or two credits plus related elective)
NUR 697 Nursing Comprehensive Examination (one credit plus two electives)
NUR 648 Administrative Practicum

Candidates may choose to earn the Advanced Practice Nurse in addition to the M.S.N./M.B.A. Completion of the following four additional courses is required for this specialty. Candidates selecting this option are not required to complete NUR 648.

Adult/Elderly

NUR 620 Clinical Pharmacology
NUR 654 Clinical Practicum I: Adult/Elderly
NUR 655 Clinical Practicum II: Adult/Elderly
NUR 656 Clinical Practicum III: Adult/Elderly

Or

Child

NUR 620 Clinical Pharmacology
NUR 657 Clinical Practicum I: Child
NUR 658 Clinical Practicum II: Child
NUR 659 Clinical Practicum III: Child

Or

Family

NUR 620 Clinical Pharmacology
NUR 670 Clinical Practicum I: Family
NUR 671 Clinical Practicum II: Family
NUR 672 Clinical Practicum III: Family

Or

Women

NUR 620 Clinical Pharmacology
NUR 673 Clinical Practicum I: Women

Nursing

NUR 674 Clinical Practicum II: Women
NUR 675 Clinical Practicum III: Women

Or

Mental Health

NUR 620 Clinical Pharmacology
NUR 676 Theoretical Perspectives: Mental Health
NUR 677 Clinical Practicum I: Mental Health
NUR 678 Clinical Practicum II: Mental Health
NUR 679 Clinical Practicum III: Mental Health

Descriptions of the M.B.A. courses are contained in the Business section of the catalog.

M.S.N. Completion Program for Advanced Practice Nurses

Nurses certified as NP, CNM, or CRNA can obtain didactic and clinical work needed to earn a master's degree in nursing. Advanced practice nurses will be granted nursing credit that will substitute for part of the clinical emphasis requirement in the M.S.N. program. The program can be completed in two years of part-time study. Applicants to the program must meet Kirkhof School of Nursing admission criteria.

Summary of requirements:

Sixteen credits granted for advanced clinical practice as validated by current specialty nursing certification.

Research-Theory (20–24 credits)

NUR 521 Theoretical Perspectives in Nursing I
NUR 522 Theoretical Perspectives in Nursing II
NUR 529 Health Care System, Policy, and Finance
NUR 531 Professional Role Development
NUR 530 Advanced Nursing Strategies
NUR 690 Research Development in Nursing
STA 610 Applied Statistics for Health Professions

Research Sequence Options

NUR 694 Thesis Preparation and NUR 695 Master's Thesis
NUR 692 Nursing Protocol Exploration and NUR 693 Nursing Protocol Development
NUR 696 Nursing Research Practicum (four credits or two credits plus related elective)
NUR 697 Nursing Comprehensive Examination (one credit plus two electives)

Post Master's Nurse Practitioner Certificate Program

Master's prepared nurses can obtain the clinical and didactic experiences necessary to meet the eligibility requirements for nurse practitioner certification. The program will provide the opportunity to prepare for the certification examination for Adult, Gerontological, Family, Pediatrics, or Women's Health Nurse Practitioner.

The program of study includes the following courses: Advanced Assessment, Professional Role Development, Advanced Nursing Strategy, and Clinical Practicum I, II, III in selected clinical emphasis. Consideration will be given to weekend classes and opportunity to complete clinical practice hours in the student's home community. Master's prepared nurses may obtain the certification in a four- or five-semester program.

Post Master's Nursing Education Certificate Program

Masters prepared nurses can obtain the necessary theory courses and practicum experience for entry leadership roles in nursing education. The program includes the following courses: Nursing Education Program Development, Teaching Health Professionals, Teaching Practicum, and an educational cognate.

Courses of Instruction

Numbers in parentheses at the end of course descriptions indicate the number of classroom, seminar, skills laboratory, and clinical laboratory hours per week.

NUR 120 Explorations in Nursing. An introduction to the discipline of professional nursing, including historical, educational, and theoretical development. Designed for both nursing majors and those considering nursing as a career. Opportunities for nurses in the changing health care system will be explored. (2-0-0-0). Two credits. Offered every semester.

NUR 180 Special Topics in Nursing. Readings, lecture, discussion, or lab in specific nursing topics. One to three credits.

NUR 220 Self-Health and Wellness. A course that emphasizes interdisciplinary theories and models of health and wellness. The student is introduced to concepts of how to change behaviors for health. Self-directed activities to assess and promote personal health will be incorporated. (2-0-0-0). Two credits. Offered every semester. (First time offered: Fall 2001)

NUR 280 Special Topics in Nursing. Readings, lecture, discussion, or lab in specific nursing topics. One to three credits.

NUR 310 Professional Nursing Seminar. Nurses returning to school for the baccalaureate degree will explore issues related to academic preparation for professional practice. The focus will be on intellectual development and the objectives for high education in nursing curricula. Students will be provided opportunities to explore resources of the academic setting. Prerequisite: R.N. status. One credit. Offered every semester. Meets for two sessions.

NUR 315 Nursing Health Assessment. Designed for beginning nursing students to develop skills in obtaining health histories and performing physical assessments. Emphasis is on expected normal findings in healthy individuals with use of appropriate communications skills and beginning therapeutic communication skills. (2-0-1-1) Prerequisite: Permit; GPA 2.7; Grade of C (not C-) in core courses. Three credits. Offered every semester. (First time offered: Winter 2002)

NUR 320 Theoretical Nursing I. Preliminary study of the professional nursing roles of provider of care and coordinator of care and member of the discipline with emphasis on health promotion, risk reduction, disease prevention, and coping with minor limitations in functional capacity. Legal, ethical, sociocultural, spiritual, environmental, research, and professional issues are included. (3-0-0-0). Prerequisite: 315. Three credits. Offered every semester. (First time offered: Spring/Summer 2002)

NUR 321 Clinical Practice I. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about individuals and families. In cooperation with health care team members, students apply abilities in critical thinking, assessment, nursing interventions, communication, and clinical skills. (0-2-2-8). Prerequisites: 315; 320 corequisite. Four credits. Offered every semester. (First time offered: Spring/Summer 2002)

NUR 330 Theoretical Aspects of Nursing I. Introduction to professional nurses' roles of provider and coordinator of care and member of the discipline, with emphasis on health promotion, disease prevention, and coping with minor limitations in functional capacity for individuals of all ages and families. Legal, ethical, sociocultural, environmental, research, and professional issues are included. (5-0-0-0). Prerequisite: Admission to the School of Nursing; prerequisite or corequisite: HS 310. Five credits. Offered every semester. (Last time offered: Winter 2002)

NUR 331 Clinical Nursing I. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about individuals and families. In cooperation with health care team members; students apply skills in critical thinking, therapeutic nursing interventions, and communication through seminars, laboratory practice, and experience in clinics, maternal-newborn units, and client's homes. (0-1-4-10). Prerequisite or corequisite: 330. Five credits. Offered every semester. (Last time offered: Winter 2002)

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NUR 340 Theoretical Aspects of Nursing II. Professional nurse roles of provider and coordinator of care and member of a discipline are expanded. Emphasis is on health restoration and coping with short-term, major limitations in capacity for individuals of all ages and families. Legal, ethical, sociocultural, environmental, research, and professional issues are included. (4-0-0-0). Prerequisite: 330 and 331; prerequisite or corequisite: HS 311. Four credits. Offered every semester. (Last time offered: Spring/Summer 2002)

NUR 341 Clinical Nursing II. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about individuals and families. In consultation with members of the health care team, students refine skills in critical thinking, therapeutic nursing interventions, and communication through seminars, laboratory practice, and experience in primarily in-patient settings. (0-2-2-14). Prerequisite or corequisite: 340. Six credits. Offered every semester. (Last time offered: Spring/Summer 2002)

NUR 350 Theoretical Nursing II. Continued discussion of professional nursing roles. Continued emphasis on health promotion, risk reduction, and disease prevention for individuals and families with emphasis on illness and disease management. Legal, ethical, sociocultural, spiritual, environmental, research, and professional issues included. (4-0-0-0). Prerequisites: 321; prerequisite or corequisite 435. Four credits. Offered every semester. (First time offered: Fall 2002)

NUR 351 Clinical Practice II. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about individuals and families. Students collaborate with health care team members to further refine abilities in critical thinking, nursing interventions, communication, assessment, and clinical skills. (0-2-4-15). Prerequisites: 350 (may be corequisite). Seven credits. Offered every semester. (First time offered: Fall 2002)

NUR 354 An Overview of End of Life Care. This course is intended for persons interested in exploring issues surrounding death and dying. Emphasis is placed on providing the student who is a consumer with critical knowledge that will assist in improving end-of-life care. (3-0-0-0). Prerequisites: None. Part of Death and Dying theme. Three credits. Offered every semester.

NUR 380 Special Topics in Nursing. Readings, lecture, discussion, or lab in specific nursing topics. One to three credits.

NUR 399 Readings in Nursing. Independent supervised readings on selected topics. Credits and topic must be prearranged with faculty sponsor(s). One to three credits.

NUR 400 Health Assessment Skills for Nurses. Designed to help the nurse develop beginning skills in taking health histories and performing physical assessment. The complete health history and physical assessment related to a chief complaint or specific problem will be addressed. Emphasis is on expected normal findings. (0-0-8-0). Prerequisite: R.N. status. Three credits. Offered every semester (first six weeks).

NUR 410 Professional Role Transition. Assists RN students in their transition to the professional nurse roles of provider and coordinator of care and member of a profession. Through clinical experiences, students attain cognitive, communication, and teaching skills required for critical thinking in health promotion and disease prevention. (2-2-0-2). Prerequisites: R.N. status and admission to the School of Nursing; 435 SWS prerequisite or corequisite. Three credits. Offered fall semester (first six weeks).

NUR 420 Theoretical Nursing III. Expanded discussion of the professional nursing roles of provider of care, coordinator of care, and member of a discipline. Emphasis is on restoration, maintenance, and promotion of health in individuals and families with long term limitations. Legal, ethical, sociocultural, spiritual, environmental, research, and professional issues are included. (4-0-0-0). Prerequisites: 351, WRT 305. Four credits. Offered every semester. (First time offered: Winter 2003)

NUR 421 Clinical Practice III. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about individuals, families, and groups. Students collaborate with health team members to further refine skills in critical thinking, nursing interventions, and communication through seminars, laboratory practice, and experiences in hospitals, clinics, and community settings. (0-2-1-15). Prerequisites: 420 (can be corequisite). Six credits. Offered every semester. (First time offered: Winter 2003)

NUR 425 Care of Clients with Chronic Conditions. Professional nurse roles of provider, coordinator of care, and member of a profession are examined. Emphasizes health maintenance and coping with limitations in functional capacity across the lifespan. Refines

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skills in critical thinking, nursing interventions, and communication through classroom and clinical experiences with individuals and families dealing with chronic conditions. (3-1-0-4). Prerequisites: RN status; 410. Three credits. Offered fall semester (first six weeks).

NUR 426 Community Health Nursing Practice. Examines role of professional nurse in assessing, planning, intervening in, and evaluating programs that address the health promotion and disease prevention needs of a community. Emphasizes role of the nurse as provider of care, coordinator of care and member of a profession in clinical settings with groups and in community situations. (3-1-0-4). Prerequisites: 410. Three credits. Offered winter semester (first six weeks).

NUR 430 Theoretical Aspects of Nursing III. Professional nurse roles of provider and coordinator of care and member of a discipline are expanded. Emphasis is health maintenance and coping with long-term mental and physical limitations in functional capacity for individuals of all ages, families and groups. Legal, ethical, sociocultural, environmental research, and professional issues are included. (4-0-0-0). Prerequisites: 340 and 341. Four credits. Offered every semester. (Last time offered: Fall 2002)

NUR 431 Clinical Nursing III. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about individuals, families, and groups. Students collaborate with health team members to further refine skills in critical thinking, therapeutic nursing interventions, and communication through seminars, laboratory practice, and experiences in hospitals, clinical, and community settings. (0-2-1-15). Prerequisite or corequisite: 430. Six credits. Offered every semester. (Last time offered: Fall 2002)

NUR 435 Research Application in Nursing Practice. Assists students in acquiring the competence necessary to be intelligent consumers of research. Critical reading and understanding of research reports will be emphasized to provide students with the skills necessary to evaluate research findings for applicability to nursing practice. (2-0-0-0). Prerequisites: STA 215; Prerequisite or corequisite NUR 430 and 431. Two credits. Offered every semester. RN Section only (SWS). Prerequisites: RN status; STA 215; WRT 305. Three credits. Offered summer semester (six weeks).

NUR 440 Theoretical Aspects of Nursing IV (Capstone). Professional nurse roles of provider and coordinator of care and member of a discipline are refined in more complex situations. Focus on community health, management, collaboration, leadership, teaching, research utilization, standard setting, evaluation, and advancement of the profession is provided. Legal, ethical, sociocultural, environmental, and professional issues are included. 4-0-0-0). Prerequisites: 430, 431, and HS 340. Four credits. Offered every semester. (Last time offered: Winter 2003)

NUR 441 Clinical Nursing IV. Knowledge from core courses, liberal arts, and nursing is used to formulate clinical judgments about groups of all ages in a variety of settings. Skills in critical thinking, therapeutic nursing interventions, and communication are applied to coordination of care in complex situations in collaboration with health care team members. (0-2-0-16). Prerequisite or corequisite: 440. Six credits. Offered every semester. (Last time offered: Winter 2003)

NUR 450 Theoretical Nursing IV. Professional nursing roles of provider and coordinator of care and a member of a discipline are refined. Focus on community health, management, collaboration, leadership, teaching, research utilization, standard setting, evaluation, and advancement of the profession is provided. Legal, ethical, sociocultural, spiritual, environmental, and professional issues are included. (4-0-0-0). Prerequisites: 421. Four credits. Offered every semester. (First time offered: Spring/Summer 2003)

NUR 451 Clinical Nursing IV (capstone). Knowledge and skills from core courses, liberal arts, and nursing are used to formulate clinical judgments about groups of all ages in a variety of settings. Ability in critical thinking, communication, and technical skills are applied to coordination of care in collaboration with health team members. This is a capstone course that is aimed at providing the student with a broad and comprehensive perspective on the fundamental assumptions, issues, and problems of the nursing discipline. (0-2-0-19). Prerequisites: 450 (may be corequisite). Seven credits. Offered every semester. (First time offered: Spring/Summer 2003)

NUR 455 Leadership and Nursing Care Management (capstone). This capstone course examines the role of the professional nurse in the leadership and management of nursing care delivery systems. Issues that impact health care delivery are explored. The clinical experience emphasizes the role of the nurse as coordinator of care and member of a

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profession. (3-1-0-4). Prerequisites: R.N. status and admission to the School of Nursing; 425 and 426. Three credits. Offered winter semester (second six weeks).

NUR 460 Critical Care Nursing. This course is designed to assist the critical care nurse in preparation for the AACN nursing certification examination. The focus is on the nursing process as it relates to care of the acutely ill client. Emphasis is placed on psychosocial and behavioral responses and legal and ethical ramifications. (3-0-0-0). Prerequisites: RN status; 380 (Critical Care), or permission of instructor. Three credits. Offered winter semester upon sufficient demand.

NUR 461 Rehabilitation Nursing. Rehabilitation nursing as a specialty practice. Pathology, particularly of the nervous system, is reviewed as it relates to a variety of rehabilitation patients. Content is designed to provide a deeper understanding of rehabilitation nursing. Emphasis is on preparation for the rehabilitation nursing certification examination. (3-0-0-0). Prerequisite: R.N. status or permission of instructor. Three credits. Offered upon sufficient demand.

NUR 499 Research in Nursing. Independent supervised research in special areas of nursing. Credits and topics must be prearranged with faculty sponsor(s). One to three credits.

NUR 510 Structured Care Methodologies. Structured care methodologies are an important approach to patient care management and outcomes. Frequently they are closely associated with the case manager's role. Course will explore in depth the various types of structured care methodologies, their rationale, use, and limitations. Their application in multiple patient situations will be discussed. (2-0-0-0). Prerequisites: B.S./B.A. and permission of the instructor. Two credits. Offered on demand.

NUR 520 Theory Development in Nursing. Exploration and identification of various frameworks for nursing practice. Includes philosophical theories, nursing theories (development), implementation, and evaluation. Prerequisites: Graduate standing and permission of instructor. Three credits. Offered fall semester.

NUR 521 Theoretical Perspectives in Nursing I. Exploration of various frameworks for nursing practice. This course focuses on concept and theory development. Prerequisites: Graduate standing or permission of instructor. (2-0-0-0). Two credits. Offered fall and winter semesters.

NUR 522 Theoretical Perspectives of Nursing II. Exploration of various frameworks for the discipline of nursing. This course focuses on critique and utilization of theory in practice and research. (2-0-0-0). Prerequisites: NUR 521. Offered fall and winter semesters. (First time offered: Winter 2002)

NUR 523 Clinical Judgment: Adults. Designed to provide graduate students in nursing with the opportunity to develop health assessment skills and to interpret client data using a selected theoretical framework. Specific foci will be the development of data collection and nursing diagnostic skills for clinical emphasis related to adults. (1-2-4-0). Prerequisites: Official admission to the graduate program and NUR 520; HS 608 (can also be taken concurrently; health assessment within one year). Three credits. Offered winter semester. (Last time offered: Winter 2002)

NUR 524 Clinical Judgment: Children. Designed to provide graduate students in nursing with the opportunity to develop health assessment skills and to interpret client data using a selected theoretical framework. Specific foci will be the development of data collection and nursing diagnostic skills for clinical emphasis related to children. Prerequisites: Officially admitted to the graduate program and NUR 520; HS 608 (can be taken concurrently; health assessment within one year). Three credits—one credit of theory and two credits of clinical. Offered winter semester.

NUR 525 Clinical Judgment: Elderly. Designed to provide graduate students in nursing with the opportunity to develop health assessment skills and to interpret client data using a selected theoretical framework. Specific foci will be the development of data collection and nursing diagnostic skills for clinical emphasis related to the elderly. (1-2-4-0). Prerequisites: Official admission to the graduate program and NUR 520; HS 608 (can be taken concurrently; health assessment within one year). Three credits—one credit of theory and two credits of clinical. Offered winter semester. (Last time offered: Winter 2002)

NUR 526 Clinical Judgment: Families. Designed to provide graduate students in nursing with the opportunity to develop health assessment skills and to interpret client data using a selected theoretical framework. Specific foci will be the development of data collection

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and nursing diagnostic skills for clinical emphasis related to families. (1.5-2-5.5-0). Prerequisites: Official admission to the graduate program and NUR 520; HS 608 (can be taken concurrently); health assessment within one year. Four credits—1.5 credits of theory and 2.5 credits of clinical. Offered winter semester. (Last time offered: Winter 2002)

NUR 527 Clinical Judgment: Women. Designed to provide graduate students in nursing with the opportunity to develop health assessment skills and to interpret client data using a selected theoretical framework. Specific foci will be the development of data collection and nursing diagnostic skills for clinical emphasis related to women. Prerequisites: Officially admitted to the graduate program and NUR 520; HS 608 (can be taken concurrently; health assessment within one year). Three credits—one credit of theory and two credits of clinical. Offered winter semester.

NUR 528 Clinical Judgment: Mental Health. Designed to provide graduate students in nursing with the opportunity to develop health assessment skills and to interpret client data using a selected theoretical framework. Specific foci will be the development of data collection and nursing diagnostic skills for clinical emphasis related to mental health. Prerequisites: Officially admitted to the graduate program and NUR 520; HS 528 (can be taken concurrently; health assessment within one year). Three credits—one credit of theory and two credits of clinical. Offered winter semester.

NUR 529 Health Care System, Policy, and Finance. Analysis of U.S. health care system, related social policy and pertinent political processes. Emphasis is on understanding components of the health care system including structure and organization, cost factors, provider-consumer roles, and cultural/economic impact on health care delivery. Policy and decision making procedures are explored. (2-0-0-3). Prerequisites: Graduate standing or permission of instructor. Two credits. Offered fall and winter semesters.

NUR 530 Advanced Nursing Strategies. Using selected theoretical frameworks to guide decision-making, students develop advanced nursing care strategies for promotion of health and disease prevention throughout the lifespan. Clinical component includes faculty-directed experiences. (2-0-0-3). Prerequisites: NUR 521 and 522; NUR 622 and 623 (pathophysiology), or HS 528. Three credits. Offered fall and winter semesters. (First time offered: Winter 2002)

NUR 531 Professional Role Development. Provides the forum for examination of the characteristics, values, and expectations of advanced nursing roles to enhance to outcomes of professional nursing practice and promote the profession. (3-0-0-0). Prerequisites: NUR 630. Three credits. Offered winter semester. (First time offered: Winter 2003)

NUR 533 Health Perspectives: Adults. Theoretical concepts related to the health of individuals and families. Focus is on the application of theories to clinical practice of adults. Students will examine psychosocial theories that provide explanation for individual and family responses that affect health. Prerequisites: 520 and official admission to the graduate program. Two credits. Offered winter semester.

NUR 534 Health Perspectives: Children. Theoretical concepts related to the health of individuals and families. Focus is on the application of theories to clinical practice of children. Students will examine psychosocial theories that provide explanation for individual and family responses that affect health. Prerequisites: 520 and official admission to the graduate program. Two credits. Offered winter semester.

NUR 535 Health Perspectives: Elderly. Theoretical concepts related to the health of individuals and families. Focus is on the application of theories to clinical practice of the elderly. Students will examine psychosocial theories that provide explanation for individual and family responses that affect health. Prerequisites: 520 and official admission to the graduate program. Two credits. Offered winter semester.

NUR 536 Health Perspectives: Families. Theoretical concepts related to the health of individuals and families. Focus is on the application of theories to clinical practice of families. Students will examine psychosocial theories that provide explanation for individual and family responses that affect health. Prerequisites: 520 and official admission to the graduate program. Two credits. Offered winter semester.

NUR 537 Health Perspectives: Women. Theoretical concepts related to the health of individuals and families. Focus is on the application of theories to clinical practice of women. Students will examine psychosocial theories that provide explanation for individual and family responses that affect health. Prerequisites: 520 and official admission to the graduate program. Two credits. Offered winter semester.

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NUR 540 Health Care Delivery. Analysis of American health care systems, related social policy, and political processes pertinent to organization, structure, goals, legislation, policy and decision-making, evaluation, cost factors, health care teams, consultation, collaboration, provider-consumer roles in the system, urban-rural health care needs, and cultural impact. Prerequisites: Graduate standing and permission of instructor. Two credits. Offered fall semester.

NUR 580 Special Topics in Nursing. Readings, lecture, discussion, or lab in specific nursing topics. One to three credits.

NUR 610 Advanced Assessment. The student will demonstrate the ability to use advanced health assessment skills to elicit a comprehensive history and holistic assessment to improve ability to detect and differentiate abnormal findings and potential diagnoses. Didactic content is based on case study analysis. Laboratory hours involve preempted demonstration and use of the Model Patient Program. (1-0-3-0). Prerequisites: Graduate standing or permission of the instructor. Two credits. Offered fall and winter semesters. (First time offered: Winter 2002)

NUR 620 Clinical Pharmacology. Explores pharmacological categories of drugs used by practitioners with a variety of patient groups. Selected drugs within categories are presented and compared on parameters such as indications, therapeutic and/or adverse effects, monitoring, doses, and common drug interactions. (3-0-0-0). Prerequisites: HS 311 or equivalent and HS 608 or equivalent. Three credits. Offered summer semester.

NUR 622 Advanced Pathophysiology I. This course is the first in a two-course series that describes the scientific concepts in understanding the biology of disease processes. Content areas to be addressed include cellular injury, inflammation, immunity, genetics, tumor biology, altered fluid and pH balance, and endocrine and cardiovascular disease processes. (2-0-0-0). Prerequisites: Graduate standing or permission of instructor. Two credits. Offered fall and winter semesters (spring upon demand).

NUR 623 Advanced Pathophysiology II. This course is the second in a two-course series that describes the scientific concepts in understanding the biology of disease processes. Content areas to be addressed include disease processes in the following systems: hematology, respiratory, renal, nervous, gastrointestinal, central nervous system, and reproductive. (2-0-0-0). Prerequisites: NUR 622 or permission of instructor. Two credits. Offered fall and winter semesters (summer upon demand).

NUR 628 Nursing Therapeutics: Mental Health. Provides a framework to study the pathophysiology and the therapeutic use of medications in the management of the health care of commonly occurring mental problems. (3-0-0-0). Prerequisites: 528. Three credits. Offered summer semester.

NUR 633 Clinical Applications: Adults. Students develop ability to apply advanced nursing care strategies for promotion of health, risk reduction, and management of common health problems of adults. (1-0-0-6). Prerequisites: 523 or, for APN, NUR 620. Three credits—one credit of theory and two credits of clinical. Offered fall semester. (Last time offered: Fall 2002)

NUR 634 Clinical Applications: Children. Students develop ability to apply advanced nursing care strategies for promotion of health, risk reduction, and management of common health problems of children. (1-0-0-6). Prerequisites: 524 or, for APN, NUR 620. Three credits—one credit of theory and two credits of clinical. Offered fall semester. (Last time offered: Fall 2001)

NUR 635 Clinical Applications: Elderly. Students develop ability to apply advanced nursing care strategies for promotion of health, risk reduction, and management of common health problems of the elderly. (1-0-0-6). Prerequisites: 525 or, for APN, NUR 620. Three credits—one credit of theory and two credits of clinical. Offered fall semester. (Last time offered: Fall 2002)

NUR 636 Clinical Applications: Families. Students develop ability to apply advanced nursing care strategies for promotion of health, risk reduction, and management of common health problems of family members. (1-0-0-9). Prerequisites: 526 or, for APN, NUR 620. Four credits—one credit theory and three credits of clinical. Offered fall semester. (Last time offered: Fall 2002)

NUR 637 Clinical Applications: Women. Students develop ability to apply advanced nursing care strategies for promotion of health, risk reduction, and management of common health

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problems of women. Prerequisites: 527 or, for APN, NUR 620. Three credits—one credit of theory and two credits of clinical. Offered fall semester.

NUR 638 Clinical Applications: Mental Health. Students develop ability to apply advanced nursing care strategies for promotion of health, risk reduction, and management of common mental health problems. (1-0-0-6). Prerequisites: 528 or, for APN, NUR 620. Three credits—one credit of theory and two credits of clinical. Offered fall semester. (Last time offered: Fall 2001)

NUR 639 Professional Effectiveness. Development and implementation of influential skills in applying advanced nursing strategies for a specific population group. Students work in a variety of clinical settings. Clinical seminars integrate theoretical concepts. (2-0-0-0). Prerequisites: 633, 634, 635, 636, 637, or 638. Two credits. Offered winter semester. (Last time offered: Winter 2003)

NUR 640 Nursing Education Program Development. Principles of development with application to construction and revision of nursing programs in schools and health care institutions. Includes educational philosophies, patterns of organization, certification and accreditation requirements and social and political influences. Prerequisite: Official admission to the graduate program. (3-0-0-0). Three credits. Offered fall semester.

NUR 642 Teaching Health Professionals. Theories of learning, teaching modalities, planning for classroom and clinical teaching, and evaluation. Emphasis is on strategies appropriate for educating health professionals. (3-0-0-0). Prerequisite: 640 or permission of instructor. Three credits. Offered fall and winter semesters.

NUR 644 Teaching Practicum. Supervised field experience. Students develop and present a teaching unit related to a program in the setting in which the practicum is being done. Also provide instruction and evaluation for a group of learners as appropriate. (0-2-0-7). Prerequisites: 639, 640, and 642. Three credits. Offered winter semester.

NUR 646 Nursing Administration. Application of theory to nursing administration: Includes theory, process, planning, directing, and monitoring health care, and financial and personnel management with emphasis on administrative strategies appropriate to the health care setting. (3-0-0-0). Prerequisite: PA 614 and 632 prerequisite or corequisites or approval of instructor. Three credits. Offered fall semester.

NUR 648 Administrative Practicum. Supervised field experience. Students apply theory to nursing administration in an agency setting. Students analyze an organization within the context of the health care system and make recommendation for change. (3-0-0-8). Prerequisites: 639, 646. Three credits. Offered winter semester.

NUR 651 Roles in Advanced Practice. Forum for examining the role of the nurse in advanced practice. Application of theoretical knowledge occurs in the clinical setting with identified preceptors. (2-0-0-0). Prerequisites: 633, 634, 635, 636, 637 or 638. Two credits. Offered winter semester. (Last time offered: Winter 2002)

NUR 652 Advanced Practice Nursing: Practicum I. Application of advanced nursing strategies in managing acute and chronic alterations in health with specific client populations. Focuses on development, implementation, and evaluation of the comprehensive APN role. Clinical conference case presentations focus on scope of practice and collaboration in managing acute and chronic alterations in health. (0-3-0-12/15). Prerequisites: 651. Four to five credits of clinical. Offered fall semester. (Last time offered: Winter 2003)

NUR 653 Advanced Practice Nursing: Practicum II. Students gain independence in managing selected acute and chronic alterations in health. Focus is on continued development, implementation and evaluation of comprehensive APN role. Clinical conference case presentations focus on interdisciplinary role of APN in managing health care for selected client populations. (0-3-0-12/15). Prerequisites: 652. Four to five credits of clinical. Offered winter semester. (Last time offered: Spring/Summer 2003)

NUR 654 Practicum I: Adult/Elderly. Application of theories and advanced nursing strategies in managing health care for adults. Focus is on the development, implementation, and evaluation of the APN role. Clinical conferences and case presentations focus on enactment of APN roles in health care. (2-0-0-12). Prerequisites: NUR 610 and NUR 531. Six credits. Offered fall semester. (First time offered: Fall 2005)

NUR 655 Practicum II: Adult/Elderly. Students gain independence in managing health care for adult populations. The focus is on the continued enactment of the APN role across the health continuum. Clinical conferences and case presentations focus on the collaborative

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role of the APN in health care delivery. (1-0-0-12). Prerequisites: NUR 654. Five credits. Offered winter semester. (First time offered: Winter 2006)

NUR 656 Practicum III: Adult/Elderly. Students develop continued skill and independence in the management of the health care of adult populations. Focus is on enactment of APN roles within the total health care system. Clinical conferences and case presentations focus on the influence and impact of the APN role in health care delivery to adult populations. (0-3-0-15). Prerequisites: NUR 655. Five credits. Offered summer semester. (First time offered: Spring/Summer 2006)

NUR 657 Practicum I: Child. Application of theories and advanced nursing strategies in managing primary health care for infants, children, and adolescents. Focus is on development, implementation, and evaluation of the APN roles. Clinical conference case presentations focus on enactment of APN roles in primary health care. (2-0-0-12). Prerequisites: NUR 610 and NUR 531. Six credits. Offered fall semester. (First time offered: Fall 2004)

NUR 658 Practicum II: Child. Students gain independence in managing primary health care for infants, children, and adolescents. Focus is on continued enactment of the APN roles across the health care continuum. Clinical conference case presentations focus on the collaborative role of the APN. (1-0-0-12). Prerequisites: NUR 657. Five credits. Offered winter semester every third year. First time offered: Winter 2005)

NUR 659 Practicum III: Child. Students select a specific population and demonstrate independence in managing the health care of the selected population. Focus is on enactment of the APN roles within the total health care system. Clinical conference case presentations focus on the influence/impact of APN roles within the total health care system. (0-3-0-15). Prerequisites: NUR 658. Five credits. Offered spring/summer semester. (First semester offered: Spring/Summer 2005)

NUR 660 Case Management Foundations I. Explores core elements of Case Management, including the principles, functions, rationale, models, and roles in a variety of health related settings. The evolution of Case Management will be examined with emphasis on the fit between the model and the environment. Various models will be compared and contrasted. (3-0-0-0). Prerequisites: Official acceptance into the graduate program or permission of the instructor. Three credits. Offered fall semester.

NUR 661 Case Management Foundations II. Course builds on Case Management Foundations I and explores the relationship between Case Management and related care management strategies and processes. Case management specific topics such as ethical-legal concerns, technology, evaluation and management will be discussed and analyzed. (3-0-0-0). Prerequisites: 660. Three credits. Offered winter semester.

NUR 662 Case Management Skills. Successful Case Managers possess a wide variety of skills and knowledge. This course will provide a theoretical and practical foundation for acquiring and enhancing many of those skills for use in diverse populations and situations. Class exercises and assignments will provide opportunities for application and synthesis of knowledge. (2-0-0-0). Prerequisites: Official admission to the graduate program or permission of the instructor. Two credits. Offered fall semester.

NUR 663 Resource Management. Managing resources is a primary Case Management focus. Interest in resources comes from multiple arenas, such as clients, providers, clinicians, and payers. Course will explore in depth the nature, processes, and principles of resource management in health care systems with emphasis on the role of the Case Manager. (3-0-0-0). Prerequisites: Official admission to the graduate program or permission of the instructor. Three credits. Offered winter semester.

NUR 664 Case Management Practicum I. Supervised field experience. Students apply theories of Case Management in an agency setting. Students analyze a Case Management structure and make recommendations for change. (0-1-0-8). Prerequisites: 660, 661, and 663. Three credits. Offered summer semester.

NUR 670 Practicum I: Family. Application of theories and advanced nursing strategies in managing primary health care of families. Focus is on development, implementation, and evaluation of the APN roles. Clinical conference case presentations focus on enactment of APN roles in primary health care. (2-0-0-12). Prerequisites: NUR 531 and NUR 610. Six credits. Offered fall semester. (First time offered: Fall 2002)

NUR 671 Practicum II: Family. Students gain independence in managing primary health care for families. Focus is on continued enactment of the APN roles across the health care

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continuum. Clinical conference case presentations focus on the collaborative role of APN. (1-0-0-12). Prerequisites: NUR 670. Five credits. Offered winter semester. (First time offered: Winter 2003)

NUR 672 Practicum III: Family. Students select a specific population and demonstrate independence in managing the health care of the selected population. Focus is on enactment of the APN roles within the total health care system. Clinical conference case presentations focus on the influence/impact of APN roles within the total health care system. (0-3-0-15). Prerequisites: NUR 671. Five credits. Offered spring/summer semester. (First time offered: Spring/Summer 2003)

NUR 673 Practicum I: Women. Application of theories and advanced nursing strategies in managing health care for women. Focus is on the development, implementation, and evaluation of the APN role. Clinical conferences and case presentations focus on enactment of APN roles in health care. (2-0-0-12). Prerequisites: NUR 531 and NUR 610 Six credits. Offered fall semester every third year. (First time offered: Fall 2003)

NUR 674 Practicum II: Women. Students gain independence in managing health care for women's populations. The focus is on the continued enactment of the APN role across the health continuum. Clinical conferences and case presentations focus on the collaborative role of the APN in health care delivery. (1-0-0-12). Prerequisites: NUR 673. Five credits. Offered winter semester every third year. (First time offered: Winter 2004)

NUR 675 Practicum III: Women. Students develop continued skill and independence in the management of the health care of women. Focus is on enactment of APN roles within the total health care system. Clinical conferences and case presentations focus on the influence and impact of the APN role in health care delivery to women. (0-3-0-15). Prerequisites: NUR 674. Five credits. Offered spring/summer semester. (First time offered: Spring/Summer 2004)

NUR 676 Health Perspectives: Mental Health. Theoretical concepts related to the health of individuals and families. Focus is on the application of theories to clinical practice of mental health. Students will examine psychosocial theories that provide explanations for individual and family responses that affect health. (2-0-0-0). Prerequisites: NUR 520 and office admission to the graduate program. Two credits. Offered winter semester. First time offered: Winter 2004)

NUR 677 Practicum I: Mental Health. Application of theories and advanced nursing strategies in managing psychiatric-mental health care for individuals. Focus is on the development, implementation, and evaluation of the APN roles. (1-0-0-9). Prerequisites: NUR 610, NUR 531, NUR 628 and NUR 676. Four credits. Offered fall semester every third year. (First time offered: Fall 2004)

NUR 678 Practicum II: Mental Health. Students gain independence in managing mental health care for individual clients. Application of theories and advanced nursing strategies in managing psychiatric-mental health care for groups and families is added. Focus is on continued enactment of the APN roles across the mental health care continuum. (2-0-0-9). Prerequisite: NUR 677. Five credits. Offered winter semester every third year. (First time offered: Winter 2005)

NUR 679 Practicum III: Mental Health. Students select a specific mental health population and demonstrate independence in managing the health care of the selected population. Focus is on enactment of the APN roles within the total health care system. Clinical conference case presentations focus on the influence/impact of APN roles within the total health care system. (2-0-0-9). Prerequisites: NUR 678. Four credits. Offered spring/summer semester every third year. (First time offered: Spring/Summer 2005)

NUR 680 Special Topics in Nursing. Lecture, discussion, and/or clinical laboratory course on topics of special interest to graduate nursing students. One to three credits.

NUR 690 Research Development in Nursing. Introduction to the process of research design. Includes research methodology, identification of a research problem, ethics, human subjects protection, and legal informed consent. (2-0-0-0). Prerequisites: 520 and official admission to the graduate program. Two credits. Offered fall semester.

NUR 692 Nursing Protocol Exploration. Provides experience in the critical, systematic utilization of nursing research. Students identify a nursing problem and explore solutions by identifying and evaluating the applicability and scientific merit of a relevant body of research. Prerequisite: 690, STA 610 (prerequisite or corequisite). One to two credits. Offered fall and winter semesters.

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NUR 693 Nursing Protocol Development. Continued experience in the critical, systematic utilization of nursing research. Development of a research-based nursing protocol and a plan for implementation and evaluation based on relevant research and critical analysis of the feasibility of implementation in a selected setting. Prerequisite: 692. One credit. Offered fall and winter semesters.

NUR 694 Thesis Preparation. Focus on research that students design, implement, and analyze in preparation for completion of a formal thesis. Students must register each semester while designing and initiating their research, completing a minimum of two credits. A maximum of two credits will count toward program requirements. Prerequisite: 690; STA 610 is a prerequisite or corequisite. One credit. Offered every semester.

NUR 695 Master's Thesis. Completion of a formal thesis based on faculty-supervised research initiated in NUR 694. Students will register for this course in the semester in which they expect to complete the thesis and defend it before their thesis committee. A maximum of two credits will count toward program requirements. Prerequisite: 694 (a minimum of two credits). Two credits. Offered every semester.

NUR 696 Nursing Research Practicum. Student will actively participate in an ongoing faculty research project. Student obtains experience in the conduct of research and submits a publishable written report. Prerequisites: Completion of the required research sequence and clinical emphasis courses. Two credits. Offered every semester.

NUR 697 Nursing Comprehensive Examination. Mechanism to demonstrate comprehensive and synthesis of concepts central to the advanced practice of nursing. Prerequisites: Completion of the required MSN coursework. One credit. Offered every semester.

NUR 699 Readings in Nursing. Independent supervised reading on selected topics. Credits and topic must be prearranged with faculty. One to three credits.

Occupational Safety and Health (OSH)

Director: Van Fleet. Intern Coordinator: Green; Adjunct faculty: Cox, Frez, Huizen, Kriebel, Mather, Schmoldt, Steffen.

Degree offered: B.S. in Occupational Safety and Health Management.

The occupational safety and health program is designed to fulfill the undergraduate educational requirements of professionals in the field. Considerable federal and state legislation enacted during the past decade has firmly established safety as a fundamental goal for improving the quality of work life in this country. These laws are extensive and profoundly affect every element of our society. The demand for competent, fully qualified safety professionals to assume positions within government, industry, and community agencies is increasing.

Grand Valley's occupational safety and health program is structured to provide students with the proper balance of safety management and scientific training required in the field. The program prepares graduates for careers in either the private or the public sector.

The program permits students to select their career emphasis area based on the types of industries for which they wish to work. Students who wish to work as safety specialists in manufacturing, insurance, or service industries will be involved in loss control issues and should select the Safety Emphasis. Students who wish to work as safety specialists in chemical industries, petroleum industries, or pharmaceutical industries will be involved in process safety management and industrial hygiene issues and should select the Hygiene Emphasis.

Career Opportunities

With increased emphasis on workplace safety, career opportunities for occupational safety and health management graduates look very good. Most employers with 200 or more employees have one or more full-time persons working in

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the safety area. In addition, many smaller employers (those with fewer than 200 employees) also hire a full-time safety professional. Job opportunities exist in hospitals, municipalities, manufacturing, retail, wholesale, construction, transportation, consulting, and insurance, to name a few.

Major Requirements

Students planning a major in occupational safety and health must complete the following requirements:

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.

2. OSH Core (21 hours):

- OSH 110 Introduction to Occupational Safety and Health
- OSH 130 Hazard Control
- OSH 214 Health and Safety Techniques
- OSH 224 Principles of Industrial Hygiene
- OSH 340 Safety Health and Program Development
- OSH 400 Critical Incident Analysis
- OSH 495 Safety and Health Administration

3. Students must select one of the following emphasis areas and meet the science cognate courses associated with that emphasis area.

- a. **Hygiene Emphasis** (19 hours):

- OSH 314 Toxicological Hazards
- OSH 414 Environmental Safety and Health Regulations
- OSH 480 OSH Field Case Study
 - or OSH 490 Internship in Occupational Safety and Health Management

Industrial Hygiene Elective Pool: Students must select 10 hours of electives with approval of the OSH advisor.

- Hygiene Science Cognate** (32 credit hours)

- BIO 112 General Biology II
- CHM 109 Introductory Chemistry
- CHM 231 Introductory Organic Chemistry
- CHM 232 Biological Chemistry
- HS 208 Human Anatomy
- HS 212 Introductory Microbiology
- HS 213 Laboratory in Microbiology
- HS 280 Human Physiology
- HS 281 Laboratory in Human Physiology
- PHY 200 Physics for the Health Sciences

- b. **Safety Emphasis** (30 hours)

- OSH 210 Principles of Loss Control
- OSH 320 Behavioral Aspects of Safety
- OSH 410 Safety Engineering and Ergonomics
- OSH 490 Internship in Occupational Safety and Health Management

Safety Emphasis Elective Pool: Students must select 18 hours of electives with approval of the OSH advisor.

- Safety Science Cognate** (21 credit hours)

- BIO 112 General Biology II
- CHM 109 Introductory Chemistry
- CHM 230 Introduction to Organic and Biochemistry
- HS 208 Human Anatomy
- PHY 200 Physics for the Health Sciences

Occupational Safety and Health

Minor Requirements

A minor in occupational safety and health consists of 21 credits chosen with the consent of the Director.

Sample Curriculum—Hygiene Emphasis

First Year First Semester

ENG 150 Strategies in Writing
MTH 110 Algebra
CHM 109 Introductory Chemistry
Electives

First Year, Second Semester

BIO 112 General Biology II
OSH 110 Introduction to Occupational
Safety and Health
PHY 200 Physics for the Life Sciences
Electives

Second Year, First Semester

CHM 231 Introductory Organic Chemistry*
HS 208 Human Anatomy
MTH 125 Survey of Calculus* or
STA 215 Introductory Applied Statistics*
OSH 130 Hazard Control
OSH 214 Health and Safety Techniques

Second Year, Second Semester

CHM 232 Biological Chemistry*
General Education elective
HS 280 Human Physiology
HS 281 Laboratory in Human Physiology

Third Year, First Semester

HS 212 Introductory Microbiology
HS 213 Laboratory in Microbiology
OSH 224 Principles of Industrial Hygiene
OSH electives

Third Year, Second Semester

OSH 314 Toxicological Hazards
OSH 340 Safety and Health Program
Development
OSH 400 Critical Incident Analysis
Electives

Fourth Year, First Semester

OSH 414 Environmental Safety and Health
Regulations
OSH 499 Independent Study in OSH
OSH electives

Fourth Year, Second Semester

OSH 480 OSH Field Case Study
OSH 490 Internship in OSH
Management
OSH 495 Safety and Health
Administration*
Electives

Sample Curriculum—Safety Emphasis

First Year First Semester

ENG 150 Strategies in Writing
MTH 110 Algebra
CHM 109 Introductory Chemistry
Electives

First Year, Second Semester

BIO 112 General Biology II
OSH 110 Introduction to Occupational
Safety and Health
PHY 200 Physics for the Life Sciences
Electives

*Successful completion of MTH 125 or STA 215, CHM 109, and CHM 231 satisfies the B.S. cognate for the Hygiene Emphasis.

*Capstone course.

**Successful completion of MTH 125 or STA 215, CHM 109, and CHM 230 satisfies the B.S. cognate for the Safety Emphasis.

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Second Year, First Semester

CHM 230 Introductory Organic and Biochemistry**
HS 208 Human Anatomy
OSH 130 Hazard Control
MTH 125 Survey of Calculus**
STA 215 Introductory Applied Statistics**

Second Year, Second Semester

OSH 214 Health and Safety Techniques
OSH electives
General education courses

Third Year, First Semester

OSH 210 Principles of Loss and Control
OSH electives
Electives

Third Year, Second Semester

OSH 224 Principles of Industrial Hygiene
OSH 340 Safety and Health Program Development
OSH electives

Fourth Year, First Semester

OSH 320 Behavior Aspects of Safety
OSH 410 Safety Engineering and Ergonomics
OSH 414 Environmental Safety and Health Regulations
OSH 499 Independent Study in OSH
Electives

Fourth Year, Second Semester

OSH 400 Critical Incident Analysis
OSH 490 Internship in OSH Management
OSH 495 Safety and Health Administration*

Courses of Instruction

OSH 110 Introduction to Occupational Safety and Health. An overview of safety and health concepts (accidents, legal accountability, hazard recognition/remediation, countermeasures, and risk) as they apply in a variety of occupational settings. (3-0-0). Three credits.

OSH 130 Hazard Control. A study of general and mechanical hazards found in the workplace and methods of controlling them to limit employee exposure. (3-0-0). Three credits.

OSH 210 Principles of Loss Control. A study of methods, tools, and techniques used to administer loss control programs in occupational settings. (3-0-0). Three credits.

OSH 214 Health and Safety Techniques. Laboratory experience designed to expose students to various monitoring tools used in the development and maintenance of a comprehensive safety program in an occupational setting. (1-0-4). Three credits.

OSH 224 Principles of Industrial Hygiene. A study of industrial hygiene methods, measurement, and equipment. Prerequisite: CHM 109 and OSH 214 or permission of instructor. (2-0-2). Three credits.

OSH 314 Toxicological Hazards. A study of chemical hazards found in the workplace, their toxicological influence, and methods of controlling them to limit employee exposure. Prerequisite: CHM 231 and OSH 214 or permission of instructor. (2-0-2). Three credits.

OSH 320 Behavioral Aspects of Safety. An examination of various pathways in psychology, their impact on the individual, on safety, and the application of basic psychological principles in the safety profession. Prerequisites: 110 and 130 or permission of the instructor. (3-0-0). Three credits.

OSH 340 Safety and Health Program Development. An examination of the concepts and tools used in safety program development and implementation for a variety of work settings. (3-0-0). Prerequisites: 110 and 130. Three credits.

OSH 400 Critical Incident Analysis. An examination of fundamental techniques for conducting a critical incident analysis. Special attention will be given to the concept of accident investigation in occupational settings. Prerequisites: Successful completion of 110, 130, and 340 or instructor approval. (3-0-0). Three credits.

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OSH 410 Safety Engineering and Ergonomics. A study of engineering methods used by safety specialists. Topics covered include Systems Safety Analysis, Fault Tree Analysis, MORT, and Ergonomics. Prerequisite: HS 208 and successful completion of 12 hours of OSH prefix courses, or approval of instructor. (3-0-0). Three credits.

OHS 414 Environmental Safety and Health Regulations. A study of laws addressing environmental pollution and hazardous waste management. Prerequisites: CHM 232 and PHY 200, or instructor approval. (3-0-0). Three credits.

OSH 480 Field Case Study. A field study conducted in a selected industry. The student will be expected to identify a cooperating company and conduct an investigation addressing a safety problem, including development of appropriate countermeasures. The study will produce a paper following a modified research format. Prerequisite: Permission of OSH advisor. Three credits.

OSH 490 Internship in Occupational Safety and Health Management. A structured opportunity for students to make practical application of classroom theory to an actual work situation. Prerequisite: Permission of instructor. Variable credit.

OSH 495 Safety and Health Administration. An integrative exploration of the administrative function of a comprehensive safety program with emphasis on operations analysis, design, implementation, and evaluation. Prerequisite: Successful completion of the OSH Core through OSH 320 and senior-level status. (3-0-0). Three credits.

OSH 499 Independent Study in Occupational Safety and Health. An individually designed learning project in the field of occupational safety and health. Prerequisite: Permission of instructor. Variable credit.

Occupational Therapy (OT)

Director: Grapczynski. Assistant Professors: Grapczynski, Hooper, Pinson, Sisco; Adjunct Faculty: Anderson, Atkinson, Azkoul, Boozer, Eastman, Gorra, Meier, Schuitema.

Degree offered: Master of Science in Occupational Therapy.

Accreditation Status

The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for the occupational therapist, administered by the certifying body, National Board for Certification in Occupational Therapy (NBCOT), 800 S. Frederick Ave., Ste. 200, Gaithersburg, MD 20877-4150. After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice. However, state licenses are usually based on the results of the NBCOT Certification Examination.

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Occupational therapy includes habilitation and rehabilitation treatment that uses meaningful and purposeful activity as a therapeutic intervention to help an injured or disabled individual to reach his or her highest level of independent functioning. These meaningful and purposeful activities are referred to as "occupations." An activity is meaningful when it taps into the intrinsic motivation of the individual engaged in the activity and is appropriate to that individual's age and general health. An activity is purposeful if it has a recognizable goal. An occupation may be used as a therapeutic intervention alone, or the intervention may include

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the use of devices (adapted silverware, computer access enhancers, writing aids with special grips, etc.) to assist the individual to achieve a desired level of independence in any given occupation.

Career Opportunities

Occupational therapy provides excellent employment potential. Numerous job opportunities are available in a variety of settings, including acute care facilities, physical rehabilitation, private practice, psychiatric rehabilitation, developmental disabilities centers, nonprofit organizations, school systems, business and industry, home health care, geriatric settings, and research centers.

Occupational Therapy at Grand Valley

The occupational therapy program is a six-year endeavor that leads to a master of science (M.S.) degree. The program is divided into two parts. For incoming freshmen, the first part consists of three years of preprofessional course-work, including courses in the natural, health, and social sciences as well as Grand Valley State University general education requirements.

Students interested in occupational therapy should begin by selecting an undergraduate major in their first year. Suggested majors include health sciences, biology, biopsychology, psychology, sociology or behavioral sciences. Once a selection has been made, students should work with advisors from that department to ensure that all major requirements are completed, along with the required preprofessional courses. Students are awarded a B.S. degree in their chosen major upon successful completion of all requirements, usually at the end of the fourth year of the program. Some majors may require summer attendance to complete the program in six years.

Upon completion of the preprofessional part of the program, students begin the professional part of the curriculum in their fourth year, following acceptance into the program (see "Application Procedures"). During the next three years, students take additional courses in the theory and practice of occupational therapy, along with selected courses in education, research, leadership, and professional behavior.

All courses during the professional part of the program must be taken for an earned grade unless otherwise specified by the Occupational Therapy Program. These requirements include a final research project and two full-time fieldwork assignments that must total a minimum of 940 hours. These fieldwork assignments may be local or they may be in other areas of the country.

Professional Conduct

Because the School of Health Professions prepares students to practice in a variety of health professions, we assume the responsibility to assure the public that our students have met high standards of professional behavior and academic achievement and have demonstrated consistent evidence of response to consumer needs. Our statement regarding professional conduct, found in the Health Professions section of this catalog, reflects this philosophy.

Application Procedures

High school seniors interested in occupational therapy must complete an undergraduate application to Grand Valley State University. They will begin their

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preprofessional studies and declare an undergraduate major in their freshman year. Transfer students from two- or four-year colleges must also complete an undergraduate application to Grand Valley State University. It is recommended that students transfer by the beginning of their junior year to ensure completion of all undergraduate degree and preprofessional requirements. Transfer students should consult with an advisor from the Occupational Therapy Program before entering Grand Valley or shortly thereafter.

Students who have completed, or are near completion of a B.S. degree, represent one of two situations: (1) those who have not completed all preprofessional courses, but intend to complete them at Grand Valley, or (2) those who have completed all preprofessional work. Those students still needing to complete preprofessional courses *must submit an undergraduate application*; those students who have completed the preprofessional courses *must submit a graduate application*. *Students are encouraged to meet with a representative of the Occupational Therapy Program regarding preprofessional course completion* to ensure a smooth transition into the program.

Admission to the Occupational Therapy Program requires completion of a Grand Valley State University graduate application. *Students must be in the process of completing preprofessional and undergraduate degree requirements in order to be considered for acceptance into the program*. Applications may be obtained from the university Admissions Office. The completed application and all supplementary materials must be submitted to the Admissions Office by October 1 of the calendar year *prior* to the year students wish to begin the professional program.

Professional Program Admission Criteria

Admission to the Occupational Therapy Program is competitive. The criteria to be met include:

1. Academic achievement of a minimum 3.0 GPA in preprofessional courses and in the last 60 hours of undergraduate work.
2. Recommendation letters (two), including a registered occupational therapist and a professor who can comment on your academic performance.
3. An interview and an extemporaneous writing sample.
4. Documented volunteer experience for a minimum of 50 hours under the supervision of an occupational therapist.
5. Completion of form detailing student accomplishments that reflect the core goals of the program.
6. International student applicants should be able to communicate well in English. The following minimal scores are expected: TOEFL 610 or computer-based TOEFL 253.

Maximum class size is 30. Admission decisions will be made in the first semester of the calendar year. Late applications will be considered assuming requirements are met and there is space in the program.

Degree Requirements

A minimum of 120 credits is required for completion of the bachelor's degree, although that may vary according to the major selected. General university degree

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requirements are in the Academic Regulations section of the catalog, and the requirements for majors are in the appropriate Academic Programs section.

Sixty-two additional credits are required for completion of the master's degree in occupational therapy. General graduate academic policies and regulations can be found in the Graduate Bulletin.

Preprofessional Program Course Requirements

One course in introductory biology (BIO 112)
One course in human anatomy with laboratory (HS 208/309)
One course in human physiology with laboratory (HS 280/281)
One course in neuroanatomy (HS 427) or neuropsychology (PSY 431)
Two courses in chemistry (CHM 109 and CHM 230)
One course in kinesiology (MOV 300)
One course in cultural anthropology (ANT 204)
One course in introductory psychology (PSY 101)
One course in life-span developmental psychology (PSY 364)
One course in abnormal psychology (PSY 303)
One course in psychology of disability (PSY 368)
One course in algebra (MTH 110) or college algebra (MTH 122)
One course in statistics (STA 215)
One course in physics (PHY 200) with laboratory
One course in biology of aging (HS 375) *or* middle age and aging (SOC 388)
One course in social psychology (SOC 360 or PSY 360)
One course in sociology of work (SOC 255)

The specific sequence of courses taken during the first three years will be determined by the student's undergraduate major. Students should consult their major advisor to determine the specific courses to be taken.

Professional Program Requirements for M.S. Degree

OT 400 Occupational Science for Therapy
OT 401 Role of Occupation in Human Development
OT 402 Theoretical Foundations of OT
OT 403 Foundations of Group Occupations
OT 405 Limitations on Occupations
SHP 408 Professional Roles/Issues in Health Care
OT 410 Professional Competencies—Play/Leisure
OT 414 Occupational Analysis
OT 415 Interventions Using Play Occupations
SHP 419 Neuromuscular Development and Control
OT 420 Clinical Reasoning I/Level I Fieldwork
OT 510 Professional Competencies—Assessment
OT 515 Interventions Using Self Care Occupations
OT 520 Clinical Reasoning II/Level I Fieldwork
OT 525 Occupational Therapy Curriculum Design
OT 610 Professional Competencies-Mechanics
OT 615 Interventions Using Work Occupations
OT 620 Clinical Reasoning III/Level I Fieldwork
SHP 510 Introduction to Health Professions Research
SHP 610 Research in the Health Professions
SHP 621 Management in Rehabilitation
SHP 622 Case Studies in Rehabilitation
SHP 625 Health Professions Leadership
OT 630 Level II Fieldwork (Part 1)*

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OT 631 Level II Fieldwork (Part 2)*
SHP 688 or 690 Health Professions Research I or Master's Thesis Proposal
SHP 689 or 695 Health Professions Research II or Master's Thesis
HS 428 Neurosciences
EDG 648 Adult Learner
NUR 642 Teaching Health Professionals

Sample Curriculum for Preprofessional Program

Note: This is a sample schedule. Each undergraduate major will have slightly different requirements.

Bachelor of Science Degree—Any Degree Program

The general education courses listed are prerequisites for the OT program.

Freshman Year

Fall		Winter	
MTH 110/122 Algebra	3	BIO 112 General Biology II/Lab	4
CHM 109 Introductory Chemistry	5	PSY 101 Introduction to Psychology	3
FS 100 Freshman Studies	1	CHM 230 Introduction to Organic and Biochemistry	5
WRT 150 Strategies in Writing	4	ANT 204 Introduction to Cultural Anthropology	3
Elective	3		
	<u>16</u>		<u>15</u>

Sophomore Year

Fall		Winter	
HS 208 Human Anatomy	3	HS 280/281 Human Physiology/Lab	4
PHY 200 Physics for the Health Sciences	4	STA 215 Introductory Applied Statistics	3
General education courses	6	General education courses	6
Elective or major	3	Elective or major	3
	<u>16</u>		<u>16</u>

Junior Year

Fall		Winter	
SOC 255 Sociology of Work	3	PSY 368 Psychology of Disability	3
HS 375 or SOC 388 Course on Aging	3	MOV 300 Kinesiology	3
General education course	3	PSY 364 Lifespan Developmental Psychology	3
PSY 303 Abnormal Behavior	3	SOC 360 Social Psychology	3
HS 427 Neuroanatomy	1	HS 309 Anatomy Laboratory	1
Major or general education course	3	Elective or major	3
	<u>16</u>		<u>16</u>

Professional Curriculum

Summer	
OT 400 Occupational Science for Therapy	3
OT 401 Role of Occupation in Human Development	3
HS 428 Neurosciences	3
OT 414 Occupational Analysis	3
	<u>12</u>

*Level II fieldwork must be completed within 24 months of completion of the academic program.

Occupational Therapy

Senior Year

Fall		Winter	
OT 402 Theoretical Foundations of Occupational Therapy	4	OT 410 Professional Competencies— Play/Leisure	3
OT 405 Limitations on Occupations	4	OT 415 Interventions Using Play Occupations	4
SHP 408 Professional Roles/Issues in Health Care	3	OT 420 Clinical Reasoning I/ Level I FW	2
Major or elective	3	Major or elective	3
	14		12
		Total: 132	

Fifth Year

Summer	
SHP 419 Neuromuscular Development and Control	3
OT 403 Foundations of Group Occupations	4
SHP 510 Introduction to Health Care Professions Research	1
OT 525 Occupational Therapy Curriculum Design	3
	11

Fall		Winter	
OT 510 Professional Competencies— Assessment	3	OT 610 Professional Competencies— Mechanics	3
OT 515 Interventions Using Self-Care Occupations	4	OT 615 Interventions Using Work Occupations	4
OT 520 Clinical Reasoning II/ Level I FW	2	OT 620 Clinical Reasoning III/ Level I FW	2
NUR 642 Teaching Health Professionals	3	SHP 621 Management in Rehabilitation	2
SHP 610 Research in the Health Professions	2	SHP 688 Health Professions Research I or SHP 690 Master's Thesis Proposal	1
	14	EDG 648 The Adult Learner	3
			15

Summer (two six-week sessions)

OT 630 Level II Fieldwork (Part 1)	6
SHP 688 Health Professions Research I or SHP 690 Master's Thesis Proposal	1
	7

Sixth Year

Fall		Winter	
OT 631 Level II Fieldwork (Part 2)	6	SHP 622 Case Studies in Rehabilitation	2
SHP 688 or 690	1	SHP 625 Health Professions Leadership	3
	7	SHP 689 Health Professions Research II or SHP 695 Master's Thesis	3
Total of fifth and sixth year: 62			8

Courses of Instruction

Numbers in parentheses at the end of the course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

OT 400 Occupational Science for Therapy. An introduction to occupational science. Discusses the scope, practice, and language of occupational science, a review of studies of

Occupational Therapy

occupation, along with the relationship of occupation to function and engagement with reality. (2-1-0). Three credits. Offered summer semester.

OT 401 Role of Occupation in Human Development. The occupational focus of each phase of the developmental process, from birth to senescence. Explores the use of meaningful occupation related to physical, cognitive/perceptual, and personality development and changes across the lifespan. (2-0-2). Three credits. Offered summer semester.

OT 402 Theoretical Foundations of OT. Introduces the conceptual and scientific theories that underlie occupational therapy interventions. These include theories related to occupational science, as well as those related to the therapeutic use of occupation. Incorporates an introduction to theory analysis, along with concepts of application and evaluation. (2-2-0). Four credits. Offered fall semester.

OT 403 Foundations of Group Occupations. The application of occupational therapy theory as it applies to groups. Includes an examination of occupational therapy theories and their application with groups as well as provision of an opportunity to practice group facilitation, the development of protocols, and group problem solving. (3-0-2). Four credits. Offered summer semester.

OT 405 Limitations on Occupation. Examines the physical and psychosocial barriers to functioning presented by inherent and acquired conditions and medical problems. Review of work, self-care, and play/leisure occupations and how performance is affected by these conditions and review of the etiology and symptoms are covered. (2-2-0). Four credits. Offered fall semester.

OT 410 Professional Competencies—Play/Leisure. First in a series designed to develop the technical skills which constitute occupational therapy practice. Focuses on the skills necessary to apply media and leisure occupations with clients. Includes the rationale for the use of media, the therapeutic value of play, laboratory practice, and appropriate documentation. (2-0-2). Three credits. Offered winter semester.

OT 414 Occupational Analysis. Introduces students to the use of analytic skills to examine individual occupations and their inherent and therapeutic traits. Incorporates an introduction to occupations used in intervention, basic tools and their uses, and the relationship of specific occupations to desired therapeutic outcomes. (2-2-0). Three credits. Offered summer semester.

OT 415 Interventions Using Play Occupations. The first course in the intervention series. Course focuses on the development of comprehensive intervention planning skills using play occupations. Includes regular laboratory practice and practice with appropriate documentation. (3-0-2). Four credits. Offered winter semester.

OT 420 Clinical Reasoning I—Level I Fieldwork. Helps students develop professional judgment and clinical decision-making skills. Discussion includes the art and science of professional practice, the evaluation of interventions, and theory—practice integration to maximize therapeutic outcomes. Fieldwork experiences provide the background for analysis and class discussion. (0-2-8). Two credits. Offered winter semester.

OT 510 Professional Competencies—Assessment. Second in a series designed to develop the technical skills that constitute occupational therapy practice. Focuses on the skills necessary for completing effective assessments with clients. Includes an introduction to standardized and nonstandardized assessments, developing the skill of observation, laboratory application of occupational performance and its components, and appropriate documentation. (2-0-2). Three credits. Offered fall semester.

OT 515 Interventions Using Self-Care Occupations. The second course in the intervention series. Continued focus on development and refinement of comprehensive intervention planning skills using self-care occupations (ADL and IADL). Includes regular laboratory practice and practice with appropriate documentation. (3-0-2). Four credits. Offered fall semester.

OT 520 Clinical Reasoning II/Level I Fieldwork. Helps students develop professional judgment and clinical decision-making skills. Discussion includes problem solving, goal setting, and development and use of clinical reasoning skills. Fieldwork experiences provide background for analysis and class discussion. (0-2-8). Two credits. Offered fall semester.

OT 525 Occupational Therapy Curriculum Design. Introduces students to the basic concepts related to curriculum development in occupational therapy. Includes the philosophical underpinnings of curriculum, program accreditation, implementation and evaluation. (0-2-2). Three credits. Offered spring/summer semester.

Philosophy

OT 610 Professional Competencies—Mechanics. Third in a series designed to develop the technical skills that constitute occupational therapy practice. Focuses on the skills necessary for basic splinting, casting, and other mechanics of treatment with clients. Includes an introduction to materials, methods, and rationale for the use of mechanics in treatment, laboratory practice on positioning, splinting, casting, the appropriate use of assistive technology, the grading of occupations, appropriate documentation, collaborating with client, making client referrals. (2-0-2). Three credits. Offered winter semester.

OT 615 Interventions Using Work Occupations. The third course in the intervention series. Focuses on the development of comprehensive intervention planning skills using work occupations across the lifespan. Includes regular laboratory practice and practice with appropriate documentation. (3-0-2). Four credits. Offered winter semester.

OT 620 Clinical Reasoning III/Level I Fieldwork. Helps students develop professional judgment and clinical decision-making skills. Discussion includes clinical reasoning, the pre-assessment image of a client, and in-depth exploration of one's own clinical reasoning and the reasoning processes of experienced therapists. Fieldwork experiences provide background for analysis and class discussion. (0-2-8). Two credits. Offered winter semester.

OT 630 Level II Fieldwork (Part I). The first half of the final practice experience in the curriculum. Designed to assist students in making the student/therapist transition, it is completed in a practice setting supervised by an experienced OTR. Experience includes a variety of diagnoses and age ranges to complement the didactic experience. Field study. Six credits. Offered spring/summer semester.

OT 631 Level II Fieldwork (Part 2). The continuation of the final practice experience in the curriculum. Implemented in the same way as the first half, the experience includes another variety of diagnoses and age ranges. This experience may be more focused or may represent the specific request of a student. Field study. Six credits. Offered fall semester.

Philosophy (PHI)

Chair: Rowe. Professors: Rowe; Associate Professors: Castêlão-Lawless, Ni, Parker, Pestana; Assistant Professors: Cimitile, DeWilde, Drabinski, Moes, Shang, Vandenberg, Whipps.

Philosophy is an activity, a practice, and a way of life that is intimately associated with the ideal of liberal education. Philosophy is also a discipline and a subject matter, one that arises from the history of its primary activity of asking and answering questions about reality, meaning, and value. Through both the activity and the discipline aspects, the study of philosophy contributes to the development of the whole person. Philosophy cuts across other disciplines by uncovering the basic assumptions of our various ways of understanding reality, making it possible for us to be alert and responsive at this level. This same inherently interdisciplinary quality also makes it possible for us to achieve a conception of the world as a whole, which supports an informed scale of value. Thus the ongoing study of philosophy is not only in-formative, but trans-formative, enabling us to live an examined life and to grow toward the way of being that the liberally educated person and the philosopher exemplify.

Requirements for Major and Minor Programs

In an era when many majors are inflated because of the influence of careerism, specialization, and external accrediting agencies, the credit hour requirements for the philosophy major are modest—only 30. This is because we take seriously the value of electives in the student's college program, the value of exploring and discovering one's real interests. The number of required hours in philosophy is also modest because we wish to encourage students to discover the importance of relating philosophy to other fields through double majors, minors, and clusters of elective courses indicating developed proficiencies.

Philosophy

All of the above emphasizes the importance of the advising relationship. In order to facilitate this relationship, the philosophy major requires a study plan through which the student's work can be consciously developed and articulated. A first draft of the study plan must be completed with the advisor by the beginning of the junior year, revised each successive semester, and completed in the capstone course.

Students majoring in philosophy must complete a minimum of 30 hours in the department, including PHI 103, 301, 302, 303, 304, and 495. Students majoring in philosophy are required to complete the B.A. degree program unless they have also completed a second major and the B.S. degree cognate for that major.

Students seeking a minor concentration in philosophy are invited to work out an appropriate program with any member of the department. The program must include a minimum of 18 hours of philosophy, at least six hours of which must be upper division.

Courses numbered 301, 302, 303, 304, and 380 may be repeated for credit when, as is usual, their content varies. Each philosophy course is designed to benefit students who, whatever their fields of concentration, are reasonably prepared and interested in its topic.

Rotation of Course Offerings in Philosophy

Below is the schedule of rotation of non-general education courses offered in Philosophy.

Fall—even year

PHI 301 Ancient Great Philosophers
PHI 310 Philosophy of Religion
PHI 330 Legal Philosophy
PHI 360 Philosophy of Science

Winter—odd year

PHI 302 Medieval Great Philosophers
PHI 370 Feminist Philosophy
PHI 440 Epistemology
PHI 495 Capstone

Fall—odd year

PHI 230 American Philosophy
PHI 303 Modern Great Philosophers
PHI 350 Philosophy of History
PHI 450 Metaphysics

Winter—even year

PHI 210 Eastern Philosophy
PHI 304 Recent Great Philosophers
PHI 320 Social and Political Philosophy
PHI 495 Capstone

PHI 101 (Introduction to Philosophy), PHI 102 (Ethics), PHI 103 (Logic), and PHI 325 (Ethics in Professional Life) are offered every fall and winter semester. In addition to the courses listed above, Philosophy 380 (Topics in Philosophy) will be offered periodically.

Career Opportunities

The vocational value of philosophy (except for teachers of philosophy) depends on its connection with other fields. For example, formal logic is close to mathematics; ethics is important for medicine, business, teaching, and counseling; legal and political philosophy are essential to law and public service; philosophy of science has a bearing on the social and natural sciences; and aesthetics and the history of philosophy are useful to students in literature and the arts. Schools of law, theology, and religious studies are enthusiastic about philosophy as an undergraduate major. Almost any graduate, professional, or career program depending on a liberal arts curriculum welcomes work done in philosophy.

Courses of Instruction

PHI 101 Introduction to Philosophy. Inquiry into different perspectives on reality, reason, experience, and human excellence. Intensive reading of at least one classical text and its implications for life in the present. Fulfills Philosophy and Literature Foundation. Three credits. Offered fall and winter semesters.

PHI 102 Ethics. What is good? What is evil? Are there objective standards for right and wrong? What are these objective standards? How can they be applied to important contemporary moral problems? This course considers the answers philosophers give to these and related questions. Fulfills Philosophy and Literature Foundation. Three credits. Offered fall and winter semesters.

PHI 103 Logic. What does it mean to think clearly and correctly? What rules govern classification and definition? What is the nature of propositions? What are the rules for correct reasoning? How can we improve our reasoning skills? This course addresses these questions with the help of a standard textbook in classical logic. Fulfills Mathematical Sciences Foundation. Three credits. Offered fall and winter semesters.

PHI 210 Eastern Philosophy. Because the world is getting smaller, the scope of our knowledge and vision must expand. This course introduces students to major philosophies of the East, such as Hinduism, Buddhism, Confucianism, and Daoism, through the study of classic texts. Fulfills World Perspectives requirement. Three credits. Offered fall semester.

PHI 220 Aesthetics. An inquiry into the nature, criteria, and significance of the fine arts and/or artistic creation and response. Fulfills Arts Foundation. Three credits. Offered winter semester.

PHI 230 American Philosophy. Focuses on figures from the classical period of American philosophy such as Peirce, James, Royce, Dewey, Santayana, and Whitehead. Works from the Colonial period and from the Romantic and Transcendental movements, together with selected current sources, provide an historical and intellectual context for understanding these focal figures. Three credits. Offered fall semester, odd-numbered years.

PHI 301 Ancient Great Philosophers. A study of one or several ancient great philosophers, such as the pre-Socratics, Plato, Aristotle, Lucretius. Focus will be on the philosophers' writings, but attention also will be given to context and tradition. Prerequisite: Prior work in philosophy or permission of instructor. Three credits. Offered fall semester, even-numbered years.

PHI 302 Medieval Great Philosophers. A study of one or several medieval great philosophers, such as: Plotinus, Augustine, Thomas Aquinas, Maimonides. Focus will be on the philosophers' writings, but attention also will be given to context and tradition. Prerequisite: Prior work in philosophy or permission of instructor. Part of Religion theme. Three credits. Offered winter semester.

PHI 303 Modern Great Philosophers. A study of one or several modern great philosophers, such as Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel. Focus will be on the philosophers' writings, but attention also will be given to context and tradition. Prerequisite: Prior work in philosophy or permission of instructor. Three credits. Offered fall semester, odd-numbered years.

PHI 304 Recent Great Philosophers. A study of one or several recent great philosophers, such as Kierkegaard, Marx, James, Wittgenstein, Heidegger, Dewey, Arendt, Merleau-Ponty, Peirce, Whitehead. Focus will be on the philosophers' writings, but attention also will be given to context and tradition. Prerequisite: Prior work in philosophy or permission of instructor. Three credits. Offered winter semester, even-numbered years.

PHI 310 Philosophy of Religion. Does God exist? Is there a life after death? How did evil enter the world? Is there any place for reason in religion, or is religious faith only a matter of subjective experience? Questions like these will be considered, as well as the answers that have been given to them by some important religious philosophers. Prerequisite: Prior work in philosophy or permission of instructor. Part of Religion theme. Three credits. Offered fall semester.

PHI 320 Social and Political Philosophy. Analyzes the intellectual appropriation of the concept of freedom over time. Emphasis will be given to the dynamic interaction between freedom and social control in classics of Western philosophy from ancient times to modernity. Authors include Plato, Epicurus, Aristotle, Aurelius, Augustine, Hobbes, Rousseau, Marx.

Philosophy

Prerequisite: Prior work in philosophy or political science or permission of instructor. Part of Freedom and Social Control theme. Three credits. Offered winter semester.

PHI 325 Ethics in Professional Life. Examination of ethical principles and practice in business, medicine, education, law, and government. This course aims at providing students with the intellectual framework for an ethical analysis of situations which arise within various professions. Also seeks to foster mutual understanding across professional lines. Part of Ethics theme. Three credits. Offered fall and winter semesters.

PHI 330 Legal Philosophy. Introduction to the nature of law, law and morality, principles and practice, freedom and determinism, common sense and science, punishment, necessity, and coercion, mental disease, all arising directly from the careful study of a substantive body of law. Especially valuable for prelaw students. Prerequisite: Prior work in philosophy, or permission of instructor. Three credits. Offered fall semester, even-numbered years.

PHI 340 Mind, Brain, and Consciousness. Introduction to theories about mind, brain and consciousness, their development and interrelation in the species and individual. Topics include: the social construction of consciousness, subjectivity; "altered" states of consciousness, "higher" states of consciousness and the unconscious; relations between mind, consciousness, and brain; consciousness and language; and consciousness and machines. Part of Human Journey theme. Three credits. Offered fall semester.

PHI 350 Philosophy of History. The course first compares classical cyclical with Judeo-Christian views of history. It then follows the rise of ideas of progress, of historicism, and of Marxism. Students study primary texts from philosophers of history such as Plato, Augustine, Vico, Hegel, and Marx, and at least one contemporary philosopher of history. Prerequisite: Prior work in philosophy, or permission of instructor. Three credits. Offered fall semester, odd-numbered years.

PHI 360 Philosophy of Science. Scientific knowledge is compared with that acquired in other disciplines. Topics common to the physical, biological, and social sciences, such as discovery, explanation, confirmation, the nature of scientific models and laws, are also considered. Prerequisite: Prior work in philosophy, or permission of instructor. Three credits. Offered fall semester, even-numbered years.

PHI 370 Feminist Philosophy. What do we mean by "feminist philosophy"? The aim of this course is to acquaint students with the various ways in which feminists have replied to this question, both in terms of the tradition of philosophy and in light of the diversity of views held by feminists themselves. Part of Changing Ideas: Changing Worlds theme and Gender, Society, and Culture theme. Three credits. Offered fall semester.

PHI 380 Topics in Philosophy. A variable topics course on a problem, theme, or figure of importance to the practice of philosophy in the present. Prerequisite: Prior work in philosophy or permission of instructor. Three credits. Offered as needed.

PHI 399 Independent Readings. Reading on a topic or a philosopher, arranged both as to credit and content with a member of the department. Prerequisite: Prior work in philosophy or permission of instructor. One to four credits. Offered fall and winter semesters.

PHI 440 Epistemology. What is knowledge? What is the relation of knower to known? How is knowledge distinguished from belief? What are the nature and ground of certainty? Varieties of objectivism and subjectivism, ancient and modern, will be considered. Prerequisite: Prior work in philosophy or permission of instructor. Three credits. Offered winter semester, odd-numbered years.

PHI 450 Metaphysics. A study of representative metaphysical systems and problems through the writings of the classical, medieval, modern and recent periods. Topics studied include being, substance, causation, essence, matter, form, space, time, relation, etc. Some attention to non-Western metaphysical thought. Prerequisite: Prior work in philosophy or permission of instructor. Three credits. Offered fall semester, odd-numbered years.

PHI 495 Reality, Knowledge, and Value (Capstone). The purpose is, by a review of basic presuppositions about knowledge, reality, and value, to make clear what unites and what separates the main traditions in people's search for wisdom. Prerequisites: Major or minor in philosophy and senior standing. Three credits. Offered winter semester.

Physical Therapy (PT)

Chair: Peck. Professors: Peck, Toot; Associate Professor: Brooks, Stevenson; Assistant Professors: Alderink, Allaben, Baker, Green, Hoogenboom, Ozga, Vaughn; Visiting Professor: Harro; Clinical Faculty: Bothner, Ph.D., Fischer, M.S., P.T.; Pippenger, Ph.D.; Adjunct Faculty: Barrus, P.T., Bennett, M.A., P.T., O.C.S., A.T.C.; Bliler, M.S., P.T.; Carlson, P.T.; Gagnon, P.T.; Grill-Ewing, M.H.S., P.T.; Huijbregts, M.H.S., M.S.M.T., P.T.; Hunter, M.S., P.T.; Johnson, M.S., Lesch, P.T.; Lomonaco, M.H.S., P.T.; May, M.S., P.T.; McGee, P.T.; McGuire, P.T.; P.T.; Merckx-Quinn, P.T.; Pertulla, M.O.M.T., P.T.; Pettet, P.T., M.P.A., O.C.S.; Pullen, M.S., P.T.; Ribesky, M.S., P.T.; Strasburg, M.S., P.T.

Degree offered: M.S. in physical therapy.

Accreditation: The physical therapy curriculum is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Physical therapy is the care and services provided by or under the direction and supervision of a physical therapist, including (1) examining clients with physical impairments, functional limitations, and disabilities or other health-related conditions in order to determine a diagnosis, prognosis, and intervention; (2) alleviating impairments and functional limitations by designing, implementing, and modifying therapeutic interventions; (3) preventing injury, impairments, functional limitations, and disability, including the promotion and maintenance of fitness, health, and quality of life in all age groups; and (4) engaging in consultation, education, and research.

Physical therapists provide clients, infants through elderly adults, with services at the preventive, acute, and rehabilitative stages directed toward achieving increased functional independence and decreased functional impairment. Physical therapists interact and practice in collaboration with a variety of health professionals. They educate and inform others about the services they offer and their effective and cost-efficient delivery. Physical therapists are required to be licensed by the states in which they practice.

Career Opportunities

Physical therapy provides good employment potential. The field continues to show growth in clinical responsibilities and in new areas of clinical practice. Some examples of settings in which physical therapists are employed include acute care hospitals, rehabilitation settings, private offices, sports medicine clinics, athletic teams, school systems, centers for the disabled, geriatric settings, home health care, industry, research centers, and universities.

Physical Therapy at Grand Valley

Incoming freshmen should select a major and work with an academic advisor in that department, as well as with a pre-physical therapy advisor. Suggested majors include but are not limited to health science, biology, biomedical science, and biopsychology. The first three years consist of pre-professional, general education, and major requirements. All of the physical therapy pre-professional program course requirements must be taken for a letter grade. Students may apply for admittance to the physical therapy program during their junior year (see Application Procedures).

If admitted to the program, students begin full-time professional coursework at the beginning of their fourth year. This includes anatomy, neuroscience, orthopedics,

Physical Therapy

biomechanics, therapeutic exercise, and other physical therapy courses. At the end of their senior year, with successful completion of all university and major requirements, students will be awarded a B.S. degree in their chosen major. The fifth and sixth years include graduate work in neurological, cardiopulmonary, rehabilitative, manual, pediatric and geriatric physical therapy, as well as a graduate research project. Students also must complete several full-time clinical experiences throughout Michigan and/or the continental United States. All courses required by the physical therapy program must be taken for a letter grade unless otherwise designated.

Application Procedures

High school seniors interested in physical therapy must submit a Grand Valley State University undergraduate application. During the freshman year, these students should begin their pre-professional studies and begin a major.

Transfer students should review, with their local academic advisor and a physical therapy program representative, the courses that will satisfy Grand Valley State University requirements. At the time of transfer, all baccalaureate degree-seeking transfer students (from community or four-year colleges) must submit a Grand Valley State University undergraduate application. Upon acceptance, these students should consult immediately with an academic advisor in their major as well as a pre-physical therapy advisor. We strongly encourage students to transfer mid-sophomore year to ensure successful completion of Grand Valley State University's major, pre-professional, and general education requirements.

Students from other institutions who wish only to complete a prerequisite course at Grand Valley State University may apply for non-degree-seeking status.

Physical therapy applicants: Applications to the physical therapy program may be obtained from the Admissions Office of Grand Valley State University. Upon return of the completed graduate application the Admissions Office will mail supplementary materials, including recommendation forms. For first consideration for admission, the supplementary materials must be returned to the Admissions Office by January 15 of the calendar year in which the student wishes to begin the professional program. Later applications also will be considered if the prospective class is not full.

Professional Program Admission Criteria

Admission to the physical therapy program is competitive. The criteria for acceptance include the following:

1. Completion or written plan for completion of prerequisite coursework:

- One course in introductory biology with lab.
- Chemistry from general through introductory biochemistry.
- One course in human anatomy with lab.
- One course in human pathophysiology.*
- One course in research design.*
- One course in college algebra, trigonometry, or calculus.
- One course in statistics.
- Two courses in physics with lab.
- One course in introductory psychology.
- One course in lifespan developmental psychology.
- Once course in introductory sociology or social problems.

*Students may seek the physical therapy admission director's permission to take human pathophysiology or research design during the physical therapy professional program.

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2. Academic achievement. Students must have a minimum average GPA of 3.0 in pre-professional program course requirements and in their last 60 hours of coursework to be considered for admission.
3. Communication and interpersonal skills. On-site interviewing and essay writing are required. Practice interviews are available by contacting Career Services.
4. Recommendations. Two recommendations must be submitted on university forms. One must be from a licensed physical therapist.
5. Observational experience. A minimum of 50 hours of observational experience of physical therapy is required. The experience may be on a volunteer or paid basis. Observational experiences in a variety of clinical settings are valued.
6. Additional activities. Additional educational, professional, leadership, scholarly, and volunteer activities are valued and must be documented on university forms.
7. Technical standards. Individuals must be able to perform all technical standards of the physical therapy program.
8. International student applicants should be able to communicate well in English. The following minimal scores are expected: TOEFL 610 or computer-based TOEFL 253.
9. An annual class of 60 students is admitted. Students are accepted for fall entrance only and will be informed of the Admission Committee's decision by a mailing within a month of the interview date.

Degree Requirements

Demonstration of completion of the 101 credits in the professional curriculum is required for completion of the Master of Science in Physical Therapy.

General graduate academic policies and regulations can be found in the GVSU catalog or in the graduate bulletin. Specific physical therapy academic policies will be provided upon entry into the program.

Professional Program Requirements for M.S. Degree

Because the School of Health Professions prepares students to practice in a variety of health professions, we assume the responsibility to assure the public that our students have met high standards of professional behavior, academic achievement, and consistent evidence of response to consumer needs.

We require that students attain a minimum of 80 percent competency in each learning module. These modules are defined by faculty and are reflected in each course syllabus across the professional curricula.

PT 418 Physical Therapy Procedures I
PT 420 Differential Diagnosis in Orthopedic PT
PT 421 Clinical Education I
PT 422 Physical Therapy Procedures II
PT 425 Clinical Medicine I
PT 428 Clinical Education II
PT 430 Introduction to Sports Physical Therapy (optional)
PT 481 Clinical Kinesiology
PT 482 Clinical Biomechanics
PT 514 Rehabilitation for Chronic Conditions
PT 518 Rehabilitation Procedures
PT 519 Spinal Manual Therapy I
PT 520 Clinical Education III

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PT 524 Neurologic Evaluation and Treatment
PT 525 Clinical Medicine II
PT 527 Neurologic Techniques
PT 565 Geriatric Physical Therapy
PT 571 Cardiopulmonary Rehabilitation
PT 620 Clinical Education IV
PT 670 Pediatric Physical Therapy
PT 672 Advanced Topics: Advanced Spinal Manual Therapy (optional)
PT 673 Advanced Topics: Manual Therapy II (optional)
PT 674 Advanced Topics: Sports Medicine (optional)
PT 676 Advanced Topics: Rehabilitation (optional)
PT 699 Independent Study in Physical Therapy (optional)
HS 365 Applied Human Physiology
HS 427 Neuroanatomy
HS 428 Neurosciences
HS 461 Prosected Regional Anatomy
HS 625 Clinical Cardiac Physiology (optional)
PSY 368 Psychology of Physical Disabilities
NUR 642 Teaching Health Professionals
SHP 408 Professional Roles/Issues in Health Care
SHP 419 Neuromuscular Development and Control
SHP 510 Introduction to Health Professions Research
SHP 610 Research in Health Professions
SHP 621 Management in Rehabilitation
SHP 622 Case Studies in Rehabilitation
SHP 688 and 689 Health Professions Research I and II
 or SHP 690 Master's Thesis Proposal and SHP 695 Master's Thesis
SHP 625 Health Professions Leadership (optional)

Professional Conduct

The physical therapy program values and will mentor the following student abilities: commitment to learning, interpersonal skills, communication skills, effective use of time and resources, use of constructive feedback, problem-solving, professionalism, responsibility, critical thinking, and stress management. Definitions and criteria will be provided upon entry into the program.

Sample Undergraduate Curriculum for Preprofessional Program

Note: This is a sample schedule for Health Science majors. Each undergraduate major will have different requirements. Students must consult with an undergraduate academic advisor in their major to determine the specific courses and sequence. Note that there is no pre-physical therapy major. The majority of pre-physical therapy students take an undergraduate Health Sciences major in the Biomedical and Health Sciences Department.

Freshman Year

Fall		Winter	
BIO 112 General Biology II (Gen Ed)	4	CHM 231 Introductory Organic Chemistry	4
CHM 109 Introductory Chemistry (Gen Ed)	5	STA 215 Introductory Applied Statistics	3
WRT 150 Strategies in Writing	4	PSY 101 Introductory Psychology (Gen Ed)	3
MTH 122 College Algebra (Gen Ed)	3	General education/electives	6
	<hr/>		<hr/>
	16		16

Physical Therapy

Sophomore Year

Fall		Winter	
BIO 355 Human Genetics	3	PSY 364 Developmental Psychology	
CHM 232 Biological Chemistry	4	(Theme)	3
SHP 220 Health Care Delivery	2	HS 208 Human Anatomy	3
SOC 280 Social Problems (Gen Ed)	3	HS 301 Introduction to Research	
General education/elective	3	in the Health Sciences	3
	15	General education/elective	3
		HS 212/213 Introductory	
		Microbiology and Lab	4
			16

Junior Year

Fall		Winter	
HS 280 Human Physiology	3	HS 309 Human Anatomy Lab	1
HS 281 Human Physiology Lab	1	HS 310 Basic Pathophysiology	3
PHY 220 General Physics I	5	HS 495/SWS Capstone	3
General education elective/SWS/Theme	3	PHY 221 General Physics II	5
WRT 305 or General education		General education/elective (Theme)	3
elective/Theme	3		15
	15		

Curriculum for Professional Program in Physical Therapy

Senior Year

Fall		Winter	
PT 481 Clinical Kinesiology	2	HS 365 Applied Human Physiology*	
HS 427 Neuroanatomy*	1	or MOV 380 Clinical Exercise	
HS 461 Prosected Regional Anatomy*	4	Physiology*	3
SHP 408 Professional Roles/Issues		PT 420 Differential Diagnosis in	
in Health Care	3	Orthopedic PT	4
PT 418 Physical Therapy Procedures I	4	PT 421 Clinical Education I	2
PSY 368 Psychology of Physical		PT 422 Physical Therapy Procedures II	3
Disabilities	3	PT 425 Clinical Medicine I	2
	17	PT 482 Clinical Biomechanics	3
			17
Spring/Summer			
First four weeks:			
PT 428 Clinical Education II	3		
Last ten weeks:			
HS 428 Neurosciences	3		
SHP 419 Neuromuscular			
Development and Control	3		
SHP 510 Introduction to Health			
Professions Research	1		
PT 430 Introduction to Sports			
Physical Therapy optional			
	10		
	138		

*Counts toward Health Science major as elective credit.

Physical Therapy

Fifth Year

Fall		Winter	
SHP 610 Research in the Health Professions	2	First four weeks: PT 520 Clinical Education III	3
PT 524 Neurologic Evaluation and Treatment	4	Last ten weeks:	
PT 525 Clinical Medicine II	2	NUR 642 Teaching Health Professionals	3
PT 527 Neurologic Techniques	4	PT 518 Rehabilitation Procedures	3
	<u>12</u>	PT 565 Geriatric Physical Therapy	3
		PT 571 Cardiopulmonary Rehabilitation	3
		SHP 688 Health Professions Research I or SHP 690 Master's Thesis Proposal	1
			<u>16</u>
Summer (eight weeks)			
PT 514 Rehabilitation for Chronic Conditions	3		
PT 519 Spinal Manual Therapy I	2		
PT 670 Pediatric Physical Therapy	3		
SHP 688 Health Professions Research I or SHP 690 Master's Thesis Proposal	1		
	<u>9</u>		

Sixth Year

Fall		Winter	
PT 620 Clinical Education IV	12	SHP 621 Management in Rehabilitation	2
SHP 688 Health Professions Research I or SHP 690 Master's Thesis Proposal	1	SHP 622 Case Studies in Rehabilitation	2
	<u>13</u>	SHP 689 Health Professions Research II or SHP 695 Master's Thesis	3
			<u>7</u>

Fifth and Sixth Year Graduate Credits 57

Advanced Topics (optional):

HS 625 Clinical Cardiac Physiology	(3)	PT 673 Manual Therapy II	(3)
PT 672 Advanced Spinal Manual Therapy	(3)	PT 674 Sports Medicine	(3)
		PT 676 Rehabilitation	(3)
		PT 699 Independent Study in PT	(variable)
		SHP 625 Health Professions Leadership	(3)

Courses of Instruction

Note: To ensure adequate foundational (prerequisite) knowledge and skill, the professional courses must be taken in sequential order as indicated in the preceding professional curriculum outline unless special permission is given by faculty. Numbers in parentheses at the end of the course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

PT 418 Physical Therapy Procedures I. Students learn basic techniques needed in patient management, including vital signs, basic first aid, patient positioning, transfers, gait training. Develops theoretical understanding and clinical skills for using various modalities, including superficial and deep heat, cryotherapy, hydrotherapy, sterile techniques, electrical modalities, and massage. Provides an introduction to wound care. Prerequisite: Admission to physical therapy program. (3-0-3). Four credits. Offered fall semester.

Physical Therapy

PT 420 Differential Diagnosis in Orthopedic PT. Orthopedic evaluation procedures, including patient interviewing, posture analysis, palpation, manual testing, and physiologic and accessory range of motion strategies related to evaluation of orthopedic dysfunction, are stressed using a problem-oriented case history format. Prerequisite: Admission to physical therapy program. (3-0-4). Four credits. Offered winter semester.

PT 421 Clinical Education I. An exposure to various clinical practice situations. Simulated clinical experience integrates all of the didactic material, patient care skills, and physical therapy techniques students have learned. Problem solving will be emphasized. Lecture, laboratory, and fieldwork. Prerequisite: Admission to physical therapy program. (1-0-3). Two credits. Offered winter semester. Graded credit/no credit.

PT 422 Physical Therapy Procedures II. The principles of orthopedic treatment. Describes the appropriate use and application of therapeutic exercise, extremity manual therapy, and spinal traction. Prerequisite: Admission to physical therapy program. (2-0-4). Three credits. Offered winter semester.

PT 425 Clinical Medicine I. Lectures by medical specialists on disease processes and injuries commonly treated by physical therapists. The role of physical therapists in managing these problems. Specialties include: family practice, orthopedic surgery, rheumatology, and radiology. Prerequisite: Admission to physical therapy program. (2-1-0). Two credits. Offered winter semester.

PT 428 Clinical Education II. One four-week full-time clinical affiliation in physical therapy practice settings. Focus is on managing clients with orthopedic disabilities. Clinical experience. Prerequisites: 421 and satisfactory completion of physical therapy curriculum to date. (0-0-40). Three credits. Offered spring/summer session. Graded credit/no credit.

PT 430 Introduction to Sports Physical Therapy. Applies fundamental knowledge and skills acquired in orthopedic physical therapy and exercise science to the evaluation and treatment of sports injuries. Clinical problem solving and referral strategies are presented using simulated case histories. Prerequisite: Admission to the physical therapy program. (1.5-0-3). Two credits. Offered summer semester.

PT 481 Clinical Kinesiology. Investigation of the osteo and arthrokinematics of normal and pathological human motion will be the primary focus. The in-situ nature of muscles as torque generators will also be studied. Students will use cadaveric specimens and living subject models to study surface anatomy and functional movement patterns. Prerequisite: Admission to the physical therapy program. (1-0-2). Two credits. Offered fall semester.

PT 482 Clinical Biomechanics. Focus on normal and pathological human motion. Static and dynamic forces that affect the human organism as they relate to prevention of movement dysfunction, patient evaluation, and treatment. Methods of clinical and scientific investigation. Prerequisite: Admission to physical therapy program. (3-0-0). Three credits. Offered winter semester.

PT 514 Rehabilitation for Chronic Conditions. Review of interdisciplinary practice procedures, clinical problem solving and referral strategies and complementary therapies used in the following areas: OB-GYN, burn management, industrial injuries, chronic pain, and chronic disease. Drug implications for selected systemic and musculoskeletal disorders will also be discussed. Prerequisite: Admission to the physical therapy program. (3-0-0). Three credits. Offered summer session.

PT 518 Rehabilitation Procedures. Evaluation and treatment of clients with amputation and clients with spinal cord injury. Information about adaptive equipment, wheelchairs, architectural barriers, orthotics, and prosthetics as related to the rehabilitation patient. Prerequisite: Admission to physical therapy program. (4-0-0). Three credits. Offered winter semester.

PT 519 Spinal Manual Therapy I. Differential evaluation, manual examination, and treatment of the spine, rib cage, and pelvis incorporating manual therapy techniques and basic exercise principles. Prerequisite: Admission to physical therapy program. (2-0-3). Three credits. Offered summer session.

PT 520 Clinical Education III. A four-week full-time clinical affiliation in physical therapy practice settings followed by four one-hour seminars when the student returns to campus. Management of clients with neuromuscular and musculoskeletal disabilities. Clinical experience. Prerequisites: 428 and satisfactory completion of physical therapy curriculum to date. (0-0-40). Three credits. Offered winter semester. Graded credit/no credit.

Physical Therapy

PT 524 Neurologic Evaluation and Treatment. Evaluation procedures used by physical therapists in managing neuromuscular dysfunction resulting from injury to the nervous system. Evaluation and management of commonly seen central nervous system pathologies. Prerequisite: Admission to physical therapy program. (2-0-2). Four credits. Offered fall semester.

PT 525 Clinical Medicine II. Lectures by medical specialists on disease processes and injuries commonly treated by physical therapists. The role of the physical therapist in managing these problems. Medical specialties include neurology, neurosurgery, pediatrics, and psychiatry. Prerequisite: Admission to physical therapy program. (2-1-0). Two credits. Offered fall semester.

PT 527 Neurological Techniques. Information about various sensory motor techniques for patients with neuromuscular dysfunctions. Application of techniques emphasized. Prerequisite: Admission to physical therapy program. (3-0-3). Four credits. Offered fall semester.

PT 565 Geriatric Physical Therapy. In-depth study of adult physical therapy development, particularly neurological and musculoskeletal from adulthood through senescence and its interrelationship with therapeutic intervention used in physical therapy. Particular attention will be given to changes in functional abilities as they are seen through the adult years. Prerequisite: Admission to physical therapy program or degree in physical therapy. (3-0-0). Three credits. Offered winter semester.

PT 571 Cardiopulmonary Rehabilitation. Focus on differential evaluation, treatment, and referral strategies related to the cardiopulmonary system. Influence of internal and external stressors on anatomical, physiological, psychological, sociocultural, developmental, and spiritual variables will be discussed. Prerequisite: Admission to the physical therapy program. (2-0-3). Three credits. Offered winter semester.

PT 620 Clinical Education IV. Eighteen weeks of full-time clinical internships in a variety of settings in Michigan and the United States. Clinical experience. Prerequisites: Completion of 520 and satisfactory completion of physical therapy curriculum through summer of fifth year. (0-0-40). Twelve credits. Offered fall semester. Graded credit/no credit.

PT 670 Pediatric Physical Therapy. In-depth study of theory, practice, and research in pediatric physical therapy. Prerequisite: Admission to physical therapy program or degree in physical therapy. (2-0-3). Three credits. Offered spring/summer session.

PT 671 Advanced Topics: Cardiac Rehabilitation. In-depth study of theory, practice, and research in cardiac rehabilitation and prevention. Prerequisite: Admission to physical therapy program or degree in physical therapy. (2-0-3). Three credits. Offered winter and summer semesters.

PT 672 Advanced Topics: Advanced Spinal Manual Therapy. Techniques of evaluation and treatment of extremities and spine. Prerequisite: Admission to physical therapy program or degree in physical therapy. (2-0-3). Three credits. Offered winter semester.

PT 673 Advanced Topics: Manual Therapy II. Advanced clinical experience and research project. Prerequisite: Admission to physical therapy program or degree in physical therapy; PT 672 or permission of instructor. (2-0-3). Three credits. Offered winter semester.

PT 674 Advanced Topics: Sports Medicine. In-depth study of theory, practice, and research in sports medicine. Prerequisite: Admission to physical therapy program or degree in physical therapy. (2-0-3). Three credits. Offered winter semester.

PT 676 Advanced Topics: Rehabilitation. In-depth study of theory, practice, and research in rehabilitation. Prerequisite: Admission to physical therapy program or degree in physical therapy. (2-0-3). Three credits. Offered winter semester.

PT 699 Independent Study in Physical Therapy. Students will complete a reading project or other approved activity building upon declared student interest. Tangible final product must be completed according to criteria developed by the student and advisor. Prerequisite: Completion of first four semesters of professional program and permission of program. One to three credits. Offered fall, winter, and spring/summer semesters.

Physician Assistant Studies (PAS)

Director: Marks, M.D. Medical Director: Clodfelder, M.D. Associate Professors: Bacon-Baguley, Ph.D.; Marks, M.D. Assistant Professors: Boeve, PA-C; Taylor, PA-C.; Adjunct Faculty: App, M.D.; Ashack, M.D.; Cimbalik, PA-C; Costanzo, M.D.; Courts, M.D.; Daugavitis, M.D.; Dernocoeur, PA-C; Gonzalez, M.D.; Ledrick, M.D.; Madura, M.D.; O'Donnell, M.D.; Piper, DPM; Rios, PA-C; Robinson, PA-C; Sova, M.D.; Stawiski, M.D.; Stiles, CNM; Tanis, M.D.; Taylor, M.D.; VanHeest, M.D.; VanRyn, PA-C; Zook, M.D.

Degree offered: M.P.A.S. (Master's in Physician Assistant Studies).

Physician assistants (PAs) are valued members of the health care team. PAs are currently licensed in all 50 of the United States by delegatory or contractual authority. Working under the direct supervision of doctors of medicine and/or osteopathy, the PA obtains histories, performs physical examinations, diagnoses and treats illnesses, gives medical advice, counsels patients, sets fractures, assists in surgery, and orders and interprets tests. In 48 of the 50 states, as well as the District of Columbia and Guam, laws are in place that authorize PAs to prescribe medication or transmit orders for dispensing medication. Because of the close working relationship PAs have with their supervising physicians, PAs are trained in the medical model to complement the training of physicians. As such PAs see many of the same types of patients and perform many of the same tasks as physicians, leaving their supervising physician to deal with more complicated cases and those outside the scope of PA practice. The responsibilities of the PA depend upon a myriad of factors, including state laws and regulations, education, experience, and the setting in which they practice.

Career Opportunities

The growth of the physician assistant profession has been exponential over the past several years. The job market remains strong in most areas of the United States, especially in rural and inner city locations. The most recent survey of graduates of PA programs shows slightly fewer than two job offers given to each graduate on average. The National Industry-Occupation Employment Outlook published by the Bureau of Labor Statistics of the U.S. Department of Labor predicts a 48 percent increase in physician assistant employment from 1998 to 2008. Physician assistants are employed in a wide variety of health care settings from academic to administrative to hospitals and home health agencies. They work in HMOs, clinics, nursing homes, emergency rooms, physician offices, industrial and occupational medicine, research facilities, correctional facilities, and Veteran's Administration and Public Health Service Centers.

Grand Valley Physician Assistant Program

Grand Valley State University established its PAS program in the 1990s, accepting its first class for entry in 1995 and graduating the inaugural class into the profession in 1998. The program awards the degree Master of Physician Assistant Studies (M.P.A.S.) following completion of a 32-month curriculum of professional studies. The program is linked with the undergraduate programs at GVSU in a "3 + 3" design to allow undergraduate students at GVSU to prepare for application to the PAS program. During their first three years of collegiate education, such students typically take coursework in the natural, health, and social sciences as well as general education courses, including the arts and humanities. By so doing, this

Physician Assistant Studies

group of students is able to meet the prerequisites for application to the PAS program. For this particular group of students it is possible to earn a bachelor's degree in health sciences during the first year of the professional program of PAS study.

An equal number of applicants to the program are derived from those who already possess a baccalaureate degree from an institution of higher learning and/or those who have pursued careers other than physician assistant. Although this group must also meet the prerequisites and criteria for application to the program, they bring with them a wealth of life and career experience that enriches the diversity of the program.

Students begin the professional curriculum after they have been accepted into the program (see "Application Procedures"). During the next three years they take additional courses in human anatomy and physiology, clinical pathophysiology, clinical medicine, neuropathology, pharmacology, laboratory medicine, and research methods. The Program combines traditional classroom sessions with Web-based courses, case studies, and problem-based learning to provide the PAS program student with the knowledge and clinical reasoning skills to sit for their board certification examination and practice the profession upon graduation. Students will also spend four semesters rotating through various clinical specialties, working in physicians' offices, clinics, emergency rooms, and hospitals throughout Michigan. As part of the master's program, students must complete a research project or thesis.

Accreditation Statement

CAAHEP. The Grand Valley State University Physician Assistant Program is fully accredited by the Accreditation Review Commission on Education for the Physician Assistant.

APAP. The Grand Valley State University Physician Assistant Studies Program is a member of the Association of Physical Assistant Programs, the exclusive national organization representing educational programs for physician assistants.

AAPA. The American Academy of Physician Assistants recognizes the Grand Valley State University Physician Assistant Studies Program, its students, and its graduates.

Application Procedures

Admission to the PAS program is competitive. Please contact the Program at 616-233-6500 to obtain an application or visit our Web site at www.gvsu.edu/pas. Students must be in the process of completing all of their preprofessional and undergraduate degree requirements to be considered.

High school seniors interested in physician assistant studies must complete an undergraduate application to Grand Valley State University. During their freshman year they will begin their preprofessional studies and declare a major.

Transfer students (from community or four-year colleges) must complete an undergraduate application to Grand Valley State University. We strongly encourage students to transfer to Grand Valley by the beginning of their junior year to ensure completion of their undergraduate degree and preprofessional requirements. Transfer students should consult with an advisor from the Physician Assistant Program before entering Grand Valley or very soon thereafter.

Physician Assistant Studies

Students who have completed or are near completion of a B.S. degree fall into one of two categories: (1) those who have not completed all the preprofessional courses but intend to complete them at GVSU before applying to the physician assistant program must submit an undergraduate application; and (2) those who have completed preprofessional coursework must complete a graduate application. Students should meet with a faculty member of the PAS program regarding the preprofessional courses.

Students must be in the process of completing all of their preprofessional and undergraduate degree requirements to be considered. All preprofessional requirements must be completed by the start of the professional phase of the program. Students who have not completed all prerequisites are encouraged to apply provided they have a definite plan to complete the preprofessional courses prior to the August start of their PAS program studies. Application information may be obtained by calling the PAS program office at (616) 233-6500. The application deadline is **November 15** of the calendar year prior to the year the student wishes to begin the professional program. All application forms and supplementary materials must be received on or before this date for the application to be considered.

Professional Program Admission Criteria

Admission to the physician assistant program is competitive. The criteria for acceptance are as follows:

1. Academic achievement. Satisfactory completion of all prerequisite coursework. Applicants must demonstrate a minimum 3.0 GPA overall and in their last 60 hours of coursework to be considered for admission. A bachelor's degree is required before beginning clinical rotations in the professional curriculum.
2. Two recommendations from appropriate health professionals must be submitted on university forms. Recommendations from practicing PAs would be most appropriate.
3. Interviews.
4. Writing samples.
5. Experience. Applicants should show evidence of 250-plus hours of significant volunteer, work, or observational experience in a health care environment.
6. International student applicants should be able to communicate well in English. The following minimal scores are expected: TOEFL 610 or computer-based TOEFL 253.

Students are accepted for fall entrance only. Students will be informed of admission decisions by **May 1**. Unsuccessful applicants may be placed on an alternate list to be offered positions in the entering class should vacancy occur.

Selection Factors

Applicants are considered without regard to age, gender, sexual orientation, race, color, national origin, religion, political beliefs, or disability. Motivational factors, life experiences, patient care experience, maturity, and personality as assessed in personal interviews, and recommendations are important factors in the selection process. An applicant's academic record is important as an indicator of ability to succeed in an intensive and rigorous program. Applicants must meet certain health and technical standards that demonstrate their capacity to function as a physician assistant. Copies of these standards may be obtained from the program or the program Web pages.

Physician Assistant Studies

Degree Requirements

Demonstration of completion of the 105 credits in the professional curriculum is required for completion of the M.P.A.S. General graduate academic policies and regulations can be found elsewhere in this GVSU catalog or in the graduate bulletin.

In addition, for each course or module of a course identified by the program faculty as a discrete unit of instruction in the professional curriculum, a minimum proficiency level of 80 percent on evaluations as described in course syllabi is required.

Professional Conduct

The program also subscribes to a belief in continual advancement during the course of professional study in a compilation of abilities. Interpersonal skills, communication skills, responsibility, and professionalism, among others, are identified as being crucial for success in the profession. Advancement in skill and behavior applicable to such abilities is expected during the professional curriculum. A complete copy of these abilities is available from the program and may also be viewed on the program Web site.

Preprofessional Program Course Requirements

- One course in introductory biology.
- One course in human genetics.
- One course in introductory chemistry.
- One course in introductory organic chemistry.
- One course in biological chemistry*.
- One course in human anatomy (including cadaver laboratory)*.
- One course in human physiology (including laboratory)*.
- One course in statistics.
- One course in introductory psychology.
- One course in developmental psychology.
- One course in introductory microbiology (including laboratory)*.
- One course in physics.
- One course in medical ethics.
- One course in clinical nutrition.
- One course in basic pathophysiology*.
- One course in introductory pharmacology*.
- One course in sociology.
- One course in introductory health care research.
- One course in medical terminology.

Additional recommended courses include: Health Care Delivery, Health Care Sociology, Introduction to Public Health, and Medical Data Management.

Professional Program Course Requirements for the M.P.A.S. Degree

PAS 420 Introduction to Physician Assistant Studies

*These courses must have been completed within the last five years or be retaken. Applicants may also take higher level courses or competency examinations for credit. Waivers of the five-year rule may be granted on a case by case basis for candidates with documented academic excellence and appropriate clinical experience.

*These courses must have been completed within the last five years or be retaken. Applicants may also take higher level courses or competency examinations for credit. Waivers of the five-year rule may be granted on a case by case basis for candidates with documented academic excellence and appropriate clinical experience.

Physician Assistant Studies

PAS 500 Clinical Medicine I
 PAS 501 Patient Evaluation I
 PAS 502 Patient Evaluation II
 PAS 505 Clinical Medicine II
 PAS 510 Clinical Pathophysiology
 PAS 511 Clinical Laboratory Medicine
 PAS 514 Clinical Modality Skills
 PAS 515 Clinical Medicine III
 PAS 601 Family Medicine Clinical Rotation
 PAS 602 Internal Medicine Clinical Rotation
 PAS 603 Obstetrics and Gynecology Clinical Rotation
 PAS 604 Geriatric Medicine Clinical Rotation
 PAS 605 Pediatrics Clinical Rotation
 PAS 606 Psychiatry/Mental Health Clinical Rotation
 PAS 607 Emergency Medicine Clinical Rotation
 PAS 608 Surgery Clinical Rotation
 PAS 612 Rural Medicine Clinical Rotation
 PAS 614 Underserved Medicine—Clinical Rotation
 PAS 615 Primary Care Practicum
 HS 412 Medical Bacteriology
 HS 427 Neuroanatomy
 HS 461 Regional Human Anatomy
 HS 475 The Pathology of Aging
 HS 510 Immunology
 HS 523 Epidemiology
 HS 528 Neuropathology
 SHP 340 Health Care Management
 SHP 350 Systems Analysis in Health Care
 SHP 510 Introduction to Health Professions Research
 SHP 610 Experimental Design
 SHP 688 Health Professions Research I
 SHP 689 Health Professions Research II
 NUR 620 Clinical Pharmacology

Professional Level Curriculum

First Professional Year

Fall—Semester One

HS 410 Immunology	3
HS 427 Neuroanatomy	1
HS 461 Regional Human Anatomy	4
PAS 420 Introduction to Physician Assistant Studies	2
PAS 501 Patient Evaluation I	2
SHP 340 Health Care Management	2
SHP 350 Systems Analysis in Health Care	2
SHP 510 Introduction to Health Professions Research	1
	17

Winter—Semester Two

HS 412 Medical Bacteriology	3
HS 475 The Pathology of Aging	3
HS 528 Neuropathology	3
PAS 500 Clinical Medicine I	3
PAS 501 Patient Evaluation II	2
SHP 610 Research in Health Professions	2
	16

Spring/Summer—Semester Three

NUR 620 Clinical Pharmacology	3
PAS 505 Clinical Medicine II	6
SHP 688 Health Professions Research I	1
	10

Physician Assistant Studies

Second Professional Year

Fall—Semester Four

HS 523 Epidemiology	3
PAS 510 Clinical Pathophysiology	3
PAS 511 Clinical Laboratory Medicine	1
PAS 514 Clinical Modality Skills	2
PAS 515 Clinical Medicine III	4
SHP 688 Health Professions Research I	1
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	14

Winter—Semester Five

PAS 601 Family Medicine Clinical Rotation*	4
PAS 602 Internal Medicine Clinical Rotation*	3
PAS 603 Obstetrics and Gynecology Clinical Rotation*	3
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	10

Spring/Summer—Semester Six

PAS 604 Geriatric Medicine Clinical Rotation*	3
PAS 605 Pediatrics Clinical Rotation*	3
PAS 606 Psychiatry/Mental Health Clinical Rotation*	3
SHP 688 Health Professions Research I	1
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	10

Third Professional Year

Fall—Semester Seven

PAS 607 Emergency Medicine Clinical Rotation*	4
PAS 608 Surgery Clinical Rotation*	3
PAS 612 Rural Medicine Clinical Rotation*	3
PAS 614 Underserved Medicine Clinical Rotation*	3
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	13

Winter—Semester Eight

PAS 615 Primary Care Practicum	12
SHP 689 Health Professions Research II	3
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	15
Total professional Program credits= 105 credits.	

Courses of Instruction

Numbers in parentheses at the end of the course descriptions indicate the number of lecture, discussion, and laboratory hours per week

PAS 420 Introduction to Physician Assistant Studies. A survey course for the development of Physician Assistant students' awareness and understanding of their profession. Professional ethics, customs, and roles, medico/legal issues, student concerns and questions about the profession will be discussed. Issues introduced in this course continue in subsequent semesters. Prerequisite: Admission to Physician Assistant Studies. (2-0-0). Two credits. Offered fall semester.

PAS 500 Clinical Medicine I. Designed for first-year (professional) Physician Assistant students. Symptom complexes are reviewed to demonstrate how anatomic, biochemical, or physiological abnormalities induce symptoms, signs, and laboratory findings. (Lecture presentations of a preclinical base are included in related medical specialties.) Prerequisite: 420. (3-0-3). Three credits. Offered winter semester.

PAS 501 Patient Evaluation I. Designed for first professional semester PAS students. Focuses upon acquisition of foundation knowledge required for patient evaluation. Communication and interviewing skills are acquired, as are rudimentary physical examination skills. The student will demonstrate capability to perform complete histories and physicals. Practical experience with actual or simulated patients is utilized. Prerequisite: Admission to the Physician Assistant Studies program. (1-0-3). Two credits. Offered fall semester.

*Sample curriculum only. Actual course sequence is tailored to meet program and individual student needs.

Physician Assistant Studies

PAS 502 Patient Evaluation II. The second sequential course for PAS students. Detailed knowledge of physical signs and symptoms for major body systems is acquired, correlated with PAS 500 modules as appropriate. Communication skills dealing with sensitive issues are acquired. Demonstration of competency using simulated and actual patients is required. Introduces EKGs and spirometry. Prerequisites: 501; PAS 500 must be taken concurrently (1-0-3). Two credits. Offered winter semester.

PAS 505 Clinical Medicine II. Continuation of Clinical Medicine I for first-year (professional) Physician Assistant students. Symptom complexes are again reviewed to provide knowledge concerning the diverse areas of clinical medicine and the comprehensive diagnostic skills needed to function as practicing clinicians. (Lecture presentations of a preclinical base are included in emergency medicine, surgery, pediatrics, neurology, radiology, and mental-health.) Prerequisites: 500/501. (6-0-6). Six credits. Offered spring/summer session.

PAS 510 Clinical Pathophysiology. Interpretation of laboratory tests used in common clinical disorders, including normal functioning of the body's system. Major primary disease processes and organ system pathology regarding disease effects will be emphasized. Integration of laboratory medicine and pathophysiology is accomplished through studies of multisystem diseases. Prerequisites: Admission into PAS program; HS 310; HS 410; PAS 500/505; Permission of instructor PAS 500/505. (3-0-0). Three credits. Offered fall semester.

PAS 511 Clinical Laboratory Medicine. Interpretation of laboratory tests used in common clinical disorders. Specimen collection procedures will be performed. The clinical significance diagnostic laboratory procedures and the principles, limitations, and applications of clinical procedures will be addressed. Integration of laboratory clinical testing and pathophysiology of disease states accomplished through studies of multisystem diseases. Prerequisite: PAS 500/505. (1-0-1). One credit. Offered fall semester.

PAS 514 Clinical Modality Skills. Transition course between the basic science courses and the clinical rotations. Emphasis on the development of skills necessary to perform routine clinical procedures such as suturing, casting, splinting, orthopedic immobilization, injections, venipuncture, and intravenous therapy. Prerequisite: 420. (1-0-2). Two credits. Offered fall semester.

PAS 515 Clinical Medicine III. Final course of clinical medicine series designed for second-year (professional) Physician Assistant students. Students integrate foundational skills developed in PAS 500 and 505 to explore clinical specialty areas. Focus is on various aspects of disease processes, differential diagnoses, and clinical thinking/reasoning skills. (Lecture presentations of a preclinical base are included in ophthalmology, obstetrics/gynecology, and subspecialty areas [ENT, dermatology, etc.].) Prerequisites: 500/505. (4-0-4). Four credits. Offered fall semester.

PAS 601 Family Medicine Clinical Rotation. Clinical rotation that provides instruction in the basic knowledge, attitudes, and skills essential to primary care physician assistants. Students study comprehensive primary health care in a variety of clinical situations, primarily in ambulatory settings. Learning will also take place through discussions, readings, seminars, and ward rounds. Prerequisite: Successful completion of all professional didactic coursework. Four credits. Offered every semester.

PAS 602 Internal Medicine Clinical Rotation. Clinical rotation focusing upon the application of basic medical knowledge to medical problems and patient care situations. Students develop methods of collection and analysis of clinical information and actively participate in patient care. Students will have opportunities to evaluate patients and develop clinical management skills. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 603 Obstetrics and Gynecology Clinical Rotation. Clinical rotation designed to provide students with knowledge and skills required to address women's health needs. Students rotate through traditional inpatient/outpatient services with emphasis on prenatal monitoring and care, recognition of complications of pregnancy, common gynecological problems, and management of normal labor and delivery. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 604 Geriatric Medicine Clinical Rotation. Clinical rotation focusing upon common acute and chronic health problems of elderly patients. Evaluation will take place in both inpatient and outpatient settings. Clinical problem solving will be emphasized and skills in disease prevention, compliance issues, and communication will be stressed. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

Physics

PAS 605 Pediatric Clinical Rotation. Clinical rotation designed to provide students with experience in the treatment of hospitalized children, well-child care, and acute minor illnesses. Throughout the rotation, the pediatric history and physical exam are stressed, as are normal and abnormal child growth and development, communication, and other pediatric medical needs. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 606 Psychiatry/Mental Health Clinical Rotation. Clinical rotation emphasizing the behavioral and biopsychosocial aspects of common mental disorders. Inpatient and outpatient settings allow students to participate in practical clinical work, seminars, and case presentations. The development of clinical interviewing, diagnostic, and treatment planning skills are stressed. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 607 Emergency Medicine Clinical Rotation. Clinical rotation that provides an opportunity to participate in the delivery of urgent and emergent patient care. Focus is on triage, evaluation, and management of injury and acute illness in emergency situations. Students learn to evaluate and manage patients from presentation to disposition. Students develop proficiency in emergency technical procedures. Prerequisite: Successful completion of all professional didactic coursework. Four credits. Offered every semester.

PAS 608 Surgery Clinical Rotation. Clinical rotation in which students will integrate with surgical teams and supervising surgical staff. Students will participate in clinic, ward rounds, operating room cases, and any staff meetings related to the care of surgical patients. Lectures, case presentations, seminars, and practical application are stressed throughout the rotation. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 612 Rural Medicine Clinical Rotation. Clinical rotation focusing upon acute and chronic health problems encountered in rural health settings. Evaluation will take place in a variety of inpatient and outpatient settings. Clinical problem solving will be emphasized and skills in disease prevention, compliance issues, and communication will be stressed. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 614 Underserved Medicine Clinical Rotation. Clinical rotation focusing upon acute and chronic health problems that are commonly found in underserved populations. Evaluation will take place in outpatient settings. Clinical problem-solving will be emphasized and skills in disease prevention, compliance issues, and communication will be stressed. Prerequisite: Successful completion of all professional didactic coursework. Three credits. Offered every semester.

PAS 615 Primary Care Practicum. Final clinical rotation embracing a heavy emphasis on clinical problem solving. Students study comprehensive primary health care on a continuing basis. The educational goal of this clinical rotation is to provide the student with a comprehensive learning experience. Prerequisites: Successful completion of all professional didactic coursework. Twelve credits. Offered winter semester.

Physics (PHY)

Chair: Reynolds. Professor: Reynolds; Associate Professors: Eligon, Estrada; Assistant Professors: Ambrose, Gipson, Thompson; Instructor: Brower; Laboratory Coordinator: Luttkhuizen.

Degrees offered: B.S. in physics; minor in physics; major or minor for physics secondary teacher certification. Physics Emphasis in Masters of Education.

Physicists are explorers of the physical universe. They seek to know and understand the fundamental behavior of nature, from elementary particles to the galaxies. Physicists must develop both experimental and analytical skills to carry out their search for a detailed description of the behavior of matter and energy.

The Physics Department offers a bachelor's degree with a major in physics, a well-defined program of observation, experimentation, and theoretical study of

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the various phenomena of nature. Extensive use is made of computers to develop and support the analytical skills required of physicists. Students seeking secondary teaching certification should note several added requirements.

The physics curriculum requires a student to plan his or her program carefully. Most courses in chemistry, mathematics, and physics can be taken only in sequence. Because many of these courses are offered only once a year and some only once every other year, it is important to plan ahead. Students who expect to major or minor in physics should see a faculty member of the Physics Department to plan their programs at the earliest opportunity, preferably before registration for their first term. It is especially important that transfer students meet with a department faculty advisor to evaluate previous work and plan an appropriate program of study.

Students who expect to complete the program in four years should have had four years of high school mathematics, including geometry, trigonometry, and two years of algebra; three years of laboratory science, including a year each of physics and chemistry; a half-year of computer programming; and four years of English. Students who do not have these courses should plan to take appropriate mathematics, programming, and English courses during their freshman year.

Career Opportunities

Physicists are usually employed in research and development laboratories in industry, private institutions, and government. As we begin this new century, the physicist will normally be working as part of a team of scientists and engineers in such research fields as energy, superconductivity, low temperature, optics, atomic and nuclear phenomena, radiation, and computers. Problem-solving skills mastered by the physics major make physics an excellent background for many professions not normally associated with the field. Employment opportunities exist for well-qualified graduates. There is an enormous need for properly prepared secondary school physics teachers.

With an advanced degree more responsible positions in research are available, as well as teaching positions in colleges or universities. A physics degree is also an excellent background for positions or further education in such fields as medicine, law, business administration, and engineering. Medical and law schools are enthusiastic about well-prepared applicants with a degree in physics.

Major Requirements: B.S. in Physics

Completion of a major in physics requires the following:

1. General university degree requirements as identified in the General Academic Regulations section of the catalog.
2. Thirty-nine semester credit hours of required physics courses with a minimum grade of C (2.0) in each course. Transfer students must complete at least 11 credit hours in physics courses taken at GVSU at the 300 level or above.

PHY 230 Principles of Physics I*
PHY 231 Principles of Physics II
PHY 302 Introduction to Modern Physics
PHY 309 Experimental Methods in Physics
PHY 311 Advanced Laboratory II
PHY 330 Intermediate Mechanics
PHY 340 Electromagnetic Fields

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PHY 350 Intermediate Modern Physics
PHY 360 Thermodynamics
PHY 485 Senior Physics Project I**
PHY 486 Senior Physics Project II**

3. Thirty-six semester credit hours of required cognate courses with a minimum grade of C (2.0) in each course.

CHM 115 Principles of Chemistry I
CHM 116 Principles of Chemistry II
CS 162 Computer Science I
MTH 201 Calculus and Analytical Geometry I*
MTH 202 Calculus and Analytical Geometry II*
MTH 203 Calculus and Analytical Geometry III
MTH 227 Linear Algebra
MTH 300 Applied Analysis I
MTH 304 Analysis of Differential Equations or MTH 302 Linear Algebra and Differential Equations

Certification for Secondary Teaching

All students seeking certification to teach at the secondary level with a major in physics must complete the following requirements:

1. The major requirements for a physics degree as noted above. A minimum GPA of 2.8 in the major is required to be recommended for teacher certification.
2. The admission and professional requirements of the School of Education as outlined in this catalog. Note that the extra coursework necessary for teaching certification normally requires a full fifth year of work.
3. Four additional courses.

A History of Science course: choose from HSC 201, 202, 203, 204, or 206.
PHY 105 Descriptive Astronomy.
A course in ethics in science (e.g., BIO 336 Bioethics).
BIO 111 or 112 General Biology I or II.

4. Experience.

All students seeking teacher certification are required to assist for at least 30 clock hours in the department's tutoring program and at least 30 clock hours as a laboratory assistant setting up equipment and demonstrations as well as helping students in a laboratory setting. Required reading and experience in laboratory safety will be part of this laboratory setting.

Minor Requirements: Physics

A minimum of 24 credit hours in physics and a GPA of 2.0 in physics are required for a minor.

The required courses are:

PHY 230 Principles of Physics I
PHY 231 Principles of Physics II

The remaining 14 hours in physics must be approved by the department upon written application by the student to the chairman.

*Completion of MTH 201, MTH 202, and PHY 230 satisfies the B.S. degree cognate for the physics major.

**capstone sequence.

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Note that most of the physics courses require prerequisites in mathematics.

Those students seeking certification to teach at the secondary level with a minor in physics must have a minimum GPA of 2.8 in the minor. Students must also meet the same requirement for laboratory and tutoring experience as outlined for certification with a major in physics.

Sample Curriculum

The following example course sequence assumes a good mathematics background. (F indicates course should be taken in the Fall semester, W for Winter)

First Year

MTH 201 Calculus and Analytical Geometry I (F)
MTH 202 Calculus and Analytical Geometry II (W)
PHY 230 Principles of Physics I (W)
CHM 115 Principles of Chemistry I (NS/A) (F)
CHM 116 Principles of Chemistry II (W)
WRT 150 Strategies in Writing
General Education course

Second Year

MTH 203 Calculus and Analytical Geometry III (F)
MTH 227 Linear Algebra I (F)
MTH 304 Analysis of Differential Equations (W) or
MTH 302 Linear Algebra and Differential Equations (W)
PHY 231 Principles of Physics II (F)
PHY 302 Introduction to Modern Physics (W)
CS 162 Computer Science I
Two general education courses

Third Year

MTH 300 Applied Analysis I (F)
PHY 309 Experimental Methods in Physics (F)
PHY 311 Advanced Laboratory II (W)
PHY 330 Intermediate Mechanics and Dynamics (F)
PHY 340 Intermediate Electricity and Magnetism (W)
Three general education courses
Electives

Fourth Year

PHY 350 Intermediate Modern Physics (W)
PHY 360 Thermodynamics (F)
PHY 485 Senior Project I (F)
PHY 486 Senior Project II (W)
Two general education courses
Electives

Master of Education Degree

The M.Ed. degree with a Concentration in Physics is offered by the School of Education in cooperation with the Department of Physics. The purpose of the degree is to provide high school and middle school teachers with opportunities to expand their knowledge in the area of physics pedagogy and deepen their understanding of the subject.

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Admission

Admission to the M.Ed. program requires teaching certification with either a major or a minor in physics, or a major in chemistry, mathematics, or group science. A demonstrated proficiency of physics at the one-year introductory level (PHY 220/221 or PHY 230/231 or equivalent) is required. Students must submit three letters of recommendation, transcripts of all previous coursework and copies of teaching certificates. Students must have at least a 3.0 cumulative GPA. For additional details, see the School of Education section of this catalog.

Curriculum Overview

The program requires completion of 33 graduate credits, 18 credits in education and 15 in physics. The specific degree requirements can be found in the Graduate Program section of the School of Education description in this catalog.

Upon admission to the program, the students and an advisor from the Department of Physics will evaluate all previous coursework taken in physics. A curricular plan reflecting the student's needs, interests, and goals will be agreed upon. Each student must complete a minimum of 15 credits from the following list of approved courses. At least 12 credits (normally four courses) must be taken at the 600 level.

PHY 555 Physics Content Enhancement
PHY 601 Physics by Inquiry I
PHY 605 General Astronomy
PHY 610 Measurement and Instrumentation
PHY 620 Methods and Materials for Demonstrating Physical Phenomena
PHY 630 Teaching Conceptual Physics
PHY 650 Software and Interactive Physics
PHY 660 Readings in Physics Education Research
PHY 670 Modern Physics with Computer Visualization

Courses of Instruction

Numbers in parentheses at the end of course descriptions indicate the number of lecture, discussion, and laboratory hours per week.

PHY 105 Descriptive Astronomy. Nonmathematical consideration of the solar system, star clusters, nebulae, pulsars, the Milky Way galaxy, extra-galactic objects, and recent discoveries. Astronomical instruments and their uses are studied. Laboratory and night observations are included. Fulfills Physical Sciences Foundation. (2-0-3). Three credits. Normally offered spring and fall semesters.

PHY 106 Science, Technology, and Society. Study of the role of physical science in shaping solutions to contemporary problems of society. Recent studies have included such topics as the U.S. energy outlook, the use of computers, the natural limits of energy conversion, and hazards of nuclear reactors. (3-0-0). Three credits.

PHY 108 Science and Science Fiction. An examination of the interrelation between various scientific fields and their science fiction counterparts. An exploration of the frontiers of science and the challenges of the future as described by science fiction literature and films. Topics include general relativity and black holes, quantum uncertainty, and the possibility of time travel. (3-0-0). Three credits.

PHY 110 Cosmology. Interdisciplinary study of science exploring the relationships between the earth, its inhabitants, and the universe. Emphasis on scientific theories of the origin, structure, processes, and ultimate state of the universe as a whole. Three credits.

PHY 120 Einstein's Universe. Study of the impact of Einstein's theories of relativity on our understanding of the birth, structure and change, and the ultimate state of the universe; the expanding universe, curved space, and evidence in support of relativity theory. (3-0-0). Three credits. Normally offered fall, winter and spring semesters.

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PHY 125 Introduction to the Physics of Music and Sound. Physical, musical, architectural, psychological, and anatomical aspects of sound. Particular emphasis will be placed on the physical basis of music and the acoustical properties of auditoriums. (3-0-0). Three credits.

PHY 180 Selected Topics in Physics. Exploration at the introductory level of topics not addressed at the same level in other physics courses. One to four credits.

PHY 200 Physics for the Life Sciences. One semester. Physics topics particularly applicable to occupations in safety, health science, biology, medicine, and industry. A practical survey of physics also applicable to humanities and non-science majors. Includes a laboratory. Background course for making decisions about science and technology. Mechanics, fluids, sound, heat, basic electricity, light optics, nuclear radiation. Prerequisite: Mathematics 110. (2-2-2). Four credits. Offered fall and winter semesters.

PHY 201 Inquiry :The Mechanical and Thermal World. Course stresses understanding physical science to allow one to explain concepts to others, whatever the audience. Focus is on the development of fundamental concepts, reasoning and critical thinking skills through discovery learning and Socratic dialogue in the laboratory setting. Topics include mass, volume, density, buoyancy, heat, temperature, electric circuits. Ideal for students preparing for careers in education). Fulfills Physical Sciences Foundation. Four credits. Offered fall semester.

PHY 204 Inquiry: Electricity, Magnetism, and Optics. Study of concepts based on readily observable phenomena in electricity, magnetism, and optics. Focuses on understanding fundamental concepts and reasoning and critical thinking skills through Discovery learning/Socratic dialog. Topics include current, resistance, voltage, power and energy; magnets, electromagnets, motors, generators; introduces optics. (Ideal for students preparing themselves for careers in education.) Fulfills Physical Sciences Foundation. Four credits. Offered winter semester.

PHY 210 Math Topics in Physics. A course in kinematics and mechanics designed to meet the needs of a student who has already completed the first half of a standard one-year non-calculus course in general physics, and who needs credit in the first half of a standard one-year calculus-based physics course. Prerequisite: 220 and MTH 201 (MTH 202 recommended as a corequisite). (1-0-0). One credit. Offered fall semester.

PHY 211 Math Topics in Physics II. A course in thermodynamics, electricity and magnetism, and optics designed to meet needs of students who have already completed the second half of a standard one-year non-calculus course in general physics, and who need credit in the second half of a standard one-year calculus based course. Prerequisites: 221, 230 or equivalent and MTH 202. (1-0-0). One credit. Offered winter semester.

PHY 220 General Physics I. The first half of a standard one-year non-calculus sequence with a laboratory; recommended for life science majors. Kinematics, vectors, Newtonian mechanics, gravity, work, conservation of energy and momentum, properties of matter, heat, wave motion, sound, special relativity. Prerequisites: algebra, geometry, trigonometry. (2-2-2). Five credits. Offered fall and winter semesters.

PHY 221 General Physics II. The second half of a standard one-year non-calculus sequence with a laboratory; recommended for life science majors. Electricity and magnetism, fields, simple electrical circuits, light and optics, introduction to quantum and nuclear phenomena. Prerequisite: 220. (2-2-2). Five credits. Offered fall and winter semesters.

PHY 226 Digital Electronics. An elementary introduction to digital integrated circuits and microprocessors. Topics include digital gates, counters, decoders, multiplexers, demultiplexers, sequencers, latches, flip-flops, displays, memories, and microprocessors. Laboratory oriented. No previous exposure to electronics is assumed. Prerequisite: Mathematics 110. (2-0-3). Three credits.

PHY 227 Microcomputers. The application of digital electronics to the design and construction of microcomputers and microprocessors or systems. Topics in high-level and assembly language programming are included. Laboratory oriented. Prerequisite: 226. (1-0-3). Two credits.

PHY 229 Linear Electronics. An introduction to linear integrated circuits commonly used in scientific instrumentation. Topics include operational amplifiers, power amplifiers, function generators, timers, digital-to-analog and analog-to-digital converters. Laboratory oriented. Prerequisite: 226. (1-0-3). Two credits.

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PHY 230 Principles of Physics I. The first course in a two-semester sequence for students of science and engineering, with a laboratory. Vectors, kinematics, dynamics, work, conservation of energy, linear and angular momentum, gravitation, mechanical waves and oscillations, sound and heat; computer applications included. Prerequisite: Mathematics 201 (MTH 202 is recommended as a corequisite). (3-2-2). Five credits. Offered fall and winter semesters.

PHY 231 Principles of Physics II. The second course in a two-semester sequence for students of science and engineering, with a laboratory. Thermodynamics, Coulomb's law, electric fields and potential energy, Gauss's law, circuits, electrical waves and oscillations, Maxwell's equations, and optics. Computer applications included. Prerequisites: 230 and Mathematics 202. (3-2-2). Five credits. Offered fall and winter semesters.

PHY 234 Engineering Physics. A second course in calculus-based physics designed for Engineering majors. Topics covered include electromagnetic theory, optics, atomic and nuclear physics. Course content emphasizes areas of physics not covered in depth by the engineering curriculum while minimizing areas of overlap. Prerequisites: PHY230 and MTH 202. (3-0-2). Four credits. Offered fall semester.

PHY 280 Selected Topics in Physics. Exploration at a moderate level of topics not addressed at the same level in other physics courses. One to four credits.

PHY 301 Experimental Support Skills. A first course in experimental design and the implementation skills needed by physicists. Topics include CAD design tools, an introduction to machining, soldering and welding, applications electronics and wiring. Safety procedures are stressed. Open to physics majors and minors only. Prerequisites: 230, 231 as a corequisite.(0-0-2). One credit. Offered fall semester.

PHY 302 Introduction to Modern Physics. A course in modern physics for students of science and engineering, with a laboratory. Special relativity, kinetic theory, photoelectric and Compton effects. Bohr atomic models, Schrodinger's equation, introduction to wave mechanics, the Heisenberg uncertainty principle, the hydrogen atom, and the Pauli exclusion principle. Prerequisites: 231 and MTH 302 or 304 as a corequisite. (3-0-3). Four credits. Offered winter semester.

PHY 303 The World After Einstein. How the revolution of ideas in physics started by Einstein's theories have changed not only science but the way we view the world and the universe. Part of the Changing Ideas: Changing Worlds theme. Writing and discussion of changes in physics and resulting changes in other fields initiated by Einstein's ideas. Prerequisites: Junior standing. (3-0-0) Three credits. Offered fall and winter semesters.

PHY 307 Wave Physics: Light, Sound, and Matter. Much of our information about the world comes to us through light and sound. This course focuses on the creation, behavior, and perception of light and sound waves and concludes with the application of wave concepts to electrons (the quantum description of matter). Format includes lecture and hands-on activities. Part of the Perceptions Theme. Prerequisites: *Completion of Science Gen. Ed. Foundation course requirements.* (3-0-0) Three credits. Offered fall and winter semesters.

PHY 309 Experimental Methods in Physics. Course consists of four modules: Instrumentation, Statistics pertaining to physics, electronics, and an introduction to machine shop methods. Course culminates in a final project that includes the design, implementation, analysis, and written and oral report of an experiment geared toward student interest. Prerequisites: 302, MTH 302 or 304, and a supplemental writing skills course. (2-0-4). Four credits. Offered fall semester.

PHY 310 Advanced Laboratory I. Theory and practice in the design and execution of experiments; use and understanding of standard laboratory instruments; statistical and computer analysis of data. Prerequisites: 302, MTH 302 or 304, and a supplemental writing skills course. (0-0-6). Two credits.

PHY 311 Advanced Laboratory II. Experimental laboratory activities related to physics at the intermediate level. The experiments assigned are dependent on student interest and goals. Prerequisite: 309 or 310 and a supplemental writing skills course. Both written and oral reports. (0-0-6). Two credits. Offered winter semester.

PHY 320 Optics. Geometrical and physical optics, interference and diffraction. Propagation of light in material media. Prerequisite: 231. (4-0-0). Four credits. Offered winter semesters of even-numbered years.

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PHY 330 Intermediate Mechanics. An intermediate-level study of classical mechanics for students of applied and theoretical physics. Use of vector methods. Kinematics and dynamics of particles and rigid bodies. Coordinate transformations, central forces, and the harmonic oscillator. Computer applications are included. Prerequisites: 230 or Engineering 212, or permission of instructor and Mathematics 302 or 304. (4-0-0). Four credits. Offered fall semester.

PHY 340 Electromagnetic Fields. An intermediate-level study of electricity and magnetism for students of applied and theoretical physics. Vector analysis, electric and magnetic fields and forces, Maxwell's equations for time independent and dependent fields, electromagnetic field waves in free space, waveguides, and transmission lines. Computer applications are included. Prerequisites: 231 and Mathematics 302 or 304. (4-0-0). Four credits. Offered winter semester.

PHY 350 Intermediate Modern Physics. An intermediate-level study of relativistic and quantum phenomena. The theory of quantum physics is presented as a mathematical description of natural phenomena. Computer techniques will be used. Prerequisites: 302 and MTH 302 or 304 (MTH 300 recommended). (4-0-0). Four credits. Offered winter semester.

PHY 360 Statistical Thermodynamics. Basic concepts of heat, thermodynamics and statistical physics for students of applied and theoretical physics. Temperature, equations of state, laws of thermodynamics, properties and behavior of pure substances, ideal gases, and mixtures. Introduction to statistical physics including statistical ensembles, probability, kinetic theory, heat capacity, and ideal gas velocity distributions. Prerequisite: 231. (4-0-0). Four credits. Offered fall semesters.

PHY 370 Solid State Physics. A first course on the physics of solids. Covers methods of determining properties of materials as well as mathematical treatment of theories explaining these properties. Topics include x-ray structure determination, crystal forms, bonding, conductivity, vibration spectra, electronic properties, semiconductors, and superconductivity. Prerequisites: 302 and MTH 302 or 304. Four credits. Offered winter semester of odd-numbered years.

PHY 380 Special Topics in Physics. Lecture, discussion, and/or laboratory in specific areas of physics. Topics will reflect the special interests of the students and/or the instructor. Prerequisites depend on the nature of the topic. One to four credits.

PHY 399 Readings in Physics. Independent supervised readings on selected topics. Prerequisite: Permission of instructor. One to four credits. Offered fall and winter semesters.

PHY 430 Advanced Mechanics. Study of classical mechanics at an advanced mathematical level. Systems of particles, rotating coordinate systems, generalized coordinates, virtual work, Lagrange's and Hamilton's equations. Prerequisites: 330 and Mathematics 400. (3-0-0). Three credits.

PHY 440 Advanced Electricity and Magnetism. Study of Maxwell's equations at an advanced mathematical level. Electromagnetic wave propagation in free space and in materials. Reflection and refraction of electromagnetic waves, waveguides and coaxial lines, electromagnetic radiation. Prerequisites: 340 and Mathematics 400. (3-0-0). Three credits.

PHY 450 Quantum Mechanics. Addition of angular momenta, scattering, approximation methods. Pauli principle, applications to transitions, molecular and solids. Prerequisites: 350 and Mathematics 400. (3-0-0). Three credits.

PHY 480 Selected Topics in Physics. Exploration at the advanced undergraduate level of topics not addressed at the same level in other physics courses. One to four credits.

PHY 485 Senior Physics Project (capstone). An independent investigation of theoretical or experimental physics. The nature and scope of the project are determined by the student in consultation with the instructor. Normally this project is carried out during the entire senior year—one hour credit during the fall semester and two hours credit during the winter semester. A written technical report is required. All seniors meet each week to discuss their projects with each other and their supervisor. Open only to senior physics students in good standing. (1-0-4). One credit. Offered fall semester.

PHY 486 Senior Physics Project (Capstone). Continuation of student's work in Physics 485. Both an oral report and a final written technical report are required. Prerequisite: 485. (1-0-8). Two credits. Offered winter semester.

PHY 499 Research in Physics. Investigation of current ideas in physics for upperclass students majoring in physics. Content determined by the student in conference with tutor.

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Completion of a substantial paper based upon the work. Prerequisite: 25 credits in physics and permission of the department chairman. One to four credits. Offered fall and winter semesters.

PHY 555 Physics Content Enhancement. Structured study of one particular field of physics, intermediate to advanced level (Mechanics, Optics, E&M, Solid State, etc.) Students complete a project adapting material learned to the middle school, high school, or introductory college level classroom. Program of study arranged with physics advisor. May be repeated for credit with different topic. Prerequisites: 230 and 231 or equivalent and department permission. (3-0-0). Three credits. Offered fall and winter semesters.

PHY 601 Physics by Inquiry I. Focuses on the development of fundamental concepts, reasoning and critical thinking skills through inquiry-based instruction and laboratory experience, using materials based on research in physics education. Introduces teachers to inquiry-based instruction by immersing them in it as students. Topics include light, color, optics and astronomy. Prerequisites: Permission of instructor. (2-0-2). Three credits. Offered summer semester of even-numbered years.

PHY 605 General Astronomy. A general study of astronomy. Historical overview, the solar system and its origin, formation, evolution and death of stars, galaxies, and some basic ideas about the origin and evolution of the universe. A laboratory component includes observations of the sky. Prerequisites: 220 and 221 or equivalent. (2-0-3). Three credits. Offered summer semester of even-numbered years.

PHY 610 Measurement and Instrumentation in the Physics Lab. Experimental laboratory experience in the metric system, measurement techniques, presentation of data, theory of significant figures and error analysis, and mastery of basic measurement and diagnostic instruments. Construction of elementary AC and DC circuits. Construction and calibration of a simple temperature, pressure, or light meter. Prerequisites: 220 and 221 or equivalent. (2-0-3). Three credits. Offered summer semester of odd-numbered years.

PHY 620 Methods and Materials for Physics Demonstrations. A survey of easy-to-make-and-use physics demonstrations. Stimulates creativity for inventing appropriate classroom demonstrations for general science and beginning physics courses. Development and presentation of demonstrations as well as how and when demonstrations fit into the classroom will be discussed. Prerequisites: 220 and 221 or equivalent. (3-0-0). Three credits. Offered summer semester of odd-numbered years.

PHY 630 Teaching Conceptual Physics. A study of each area of traditional physics topics focused on teaching techniques that will promote conceptualization by the students. Topics include methods of visualization, real life examples, nonmathematical techniques, small groups, and the role of Socratic dialog. Prerequisites: 220 and 221 or equivalent. (3-0-0). Three credits. Offered fall semester of odd-numbered years.

PHY 650 Software and Interactive Physics. How to use physics software appropriate to junior high and high school physics courses. Software ranges from demonstration material and simulations of physical phenomena to interactive and computer based laboratory exercises. Students also study ways to effectively incorporate the software into the secondary curriculum. Prerequisites: 220 and 221 or equivalent and basic computing skills. (2-0-3). Three credits. Offered winter semester of even-numbered years.

PHY 660 Readings in Physics Education Research. An introduction to physics education research. Students read about and discuss developments in physics education. Prerequisites: 220 and 221 or equivalent. (3-0-0). Three credits. Offered fall semester of even-numbered years.

PHY 670 Modern Physics with Computer Visualization. Uses visual quantum mechanics instructional units to integrate interactive computer programs with hands-on, minds-on activities to learn modern physics and quantum principles. Visualization techniques will replace higher level mathematics. The important historical experiments done at the turn of the century will also be reproduced and studied. Prerequisites: 220 and 221 or equivalent. (2-0-2). Three credits. Offered fall semester of odd-numbered years.

PHY 680 Selected Topics in Physics. Exploration at the advanced level of topics not addressed at the same level in other physics courses. One to four credits.

Political Science (PLS)

Chair: King. Professors: Baum, King; Associate Professor: Diven; Assistant Professors: Constantelos, Huang, Orth, Richards, Smith.

The central aim of the political science program is to achieve a well-rounded undergraduate knowledge of the discipline. The program is important for those majors whose career goals include a profession directly related to government and politics; graduate and professional study in political science and/or related areas, including law; teaching political science and government at all levels of institutions; positions in public and private sectors; leadership in advocacy on public and common-good issues; leadership in mass communication and public opinion.

Requirements for a Major

Students seeking the B.A. or B.S. degree are required to take at least 33 credits in political science, including PLS 102, 103, 495, and eight additional courses, two of which must be in American politics, one in comparative politics, one in political thought, and one in international relations. At least three of these courses must also be at the 300 level. A total of no more than nine credits of internship and independent study may count toward the major, with no more than six credits in either category. Public Administration (PA) 307 may count as an American politics elective.

Students seeking a B.A. degree must demonstrate third-semester proficiency in a foreign language. Students seeking a B.S. degree must complete the following degree cognate sequence: STA 215, SS 300, and PLS 315 or 341. When taken as part of the B.S. cognate, PLS 315 and 341 do not count toward the 33 required credits for the major.

Requirements for a Minor

Students minoring in political science are required to complete at least 21 hours in political science, including PLS 102 and 103. Of the remaining 15 credits, one course must be in American politics, one in comparative politics or international relations, and one in political thought. At least nine credit hours must be at the 300 level. No more than six credits of internship or independent study may count toward the minor. Public Administration (PA) 307 may count as an American politics elective.

Career Opportunities

Students with a B.A. or B.S. degree with a major or minor in political science find positions in a wide variety of fields—with a large percentage of persons employed in business.

Nevertheless, political science as a major or minor field can also lead to careers more closely identified with political science itself. Some of these careers include government work in administration, foreign service, and specialized overseas assignments. Teaching positions at all levels can be pursued with a political science major or minor. There are also many careers in public action and interest groups for which it is advantageous to have a political science degree.

Political Science

Pre-law

Courses in political science are generally regarded as among those that students preparing for a career in law should take. Also important are courses in history, economics, and philosophy. Students are reminded that law schools prefer students with a solid background covering a variety of disciplines and that law school courses are quite specific in content (which means that the undergraduate program should provide a solid framework of general knowledge). For example, writing and study skills, the ability to think logically, knowledge of government organization and processes, and the economic-social environment of the law should be acquired before entering law school.

Recommended courses for prelaw students include American and English history, economics and accounting, philosophy, and writing skills, as well as political science.

Internships

The Political Science Department offers students a unique opportunity to study the political process in action through its internship program. The number and variety of internships differ with the interests of students, the need of public officials, and other factors. For example, we have had students serve internships in political campaigns, local governmental agencies, the Michigan state government, the local and Washington offices of area members of Congress, and in foreign countries. Students can earn up to six credits in the intern program. The emphasis of the program is on broadening students' experience and knowledge about politics through a practical involvement that is firmly founded on and tied to strong academic curricula.

Sample Curriculum

First Year

Political Science 102 and 103
A writing skills course
One or two humanities/arts general education courses
One or two science general education courses
Electives (or foreign language)

Second Year

Three political science courses at 200–300 level
STA 215 and SS 300 (B.S. majors)
One or two general education courses
Electives (or foreign language)
Additional writing skills if needed

Third Year

Three political science courses at 200–300 level
PLS 315 or 341 (B.S. majors)
Completion of general education courses
Electives
Political science internship

Fourth Year

Political science capstone
Political science internship
Electives

Courses of Instruction

Introduction to the Study of Political Science

PLS 102 American Government and Politics. A prerequisite to all courses listed in the subfield of American Government and Politics. Examines American political values, governmental functions, political processes, policy issues, and decision-making processes. Fulfills Social Sciences Foundation. Three credits. Offered every semester.

PLS 103 Issues in World Politics. Analysis and discussion of contemporary issues in world politics as a vehicle for introducing core concepts in comparative politics and international

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relations, including power, sovereignty, ideology, and morality in world affairs. Students will gain basic familiarity with the institutions and actors that influence world politics. Fulfills Social Sciences Foundation. Three credits. Offered every semester.

American Government and Politics

PLS 202 American Election Campaigns. An examination of the strategies and tactics of American election campaigns. Particular focus on the role of the mass media and computer technology as instruments of campaign communication and persuasion. Prerequisite: 102. Three credits. Offered fall semester of even-numbered years.

PLS 203 State Politics. Examines the relationship between the states and the national government (federalism), state political institutions, and the politics and policies that characterize contemporary state governing. Emphasizes devolution (the shift of responsibility from the national government to the states), the relationship between governing and the economy, and Michigan politics and policy. Prerequisite: 102 or junior standing. Three credits. Offered fall semester.

PLS 205 The Policy Process. An introduction to the study of public policy. Examines the politics of the policy-making process in the United States. Students will gain an understanding of how issues emerge and ultimately become policies, how politics shapes public policies, and how these policies affect people's lives. Prerequisite: 102 or junior standing. Offered fall semester.

PLS 206 American Constitutional Foundations. Integrates the perspectives of political science and constitutional law to examine the principles and institutional structures of the American political system. Analyzes political and constitutional sources of presidential, congressional, state and national power. Investigates federalism, voting, parties, interest groups, civil rights, and civil liberties. Primarily for social studies majors. Three credits. Offered fall and winter semester.

PLS 304 Political Parties and Interest Groups. A theoretical examination of the roles that these two different types of groups play in politics and an empirical examination of what they do and how they do it. Although the primary focus is on the U.S. political system, some comparative material will be presented. Prerequisite: 102 or junior standing. Three credits. Offered fall and winter semesters.

PLS 305 Congress and the Presidency. An examination of the interrelationships among the modern President, Congress, and the federal bureaucracy, stressing contemporary forces and personalities affecting the relationship. Prerequisite: 102 or junior standing. Three credits. Offered fall semester.

PLS 306 American Constitutional Law I. Federalism and separation of powers. Examination of the constitutional foundations of the power relationship between the federal government and the states, among the three branches of the federal government, and between the government and the individual, with special emphasis given to leading decisions of the Supreme Court. Prerequisite: 102 or junior standing. Three credits. Offered winter semester.

PLS 307 American Constitutional Law II. Civil liberties and civil rights. Constitutional principles, theories of constitutional interpretation, Supreme Court rulings, political consequences of rulings, and political and legal factors that influence Supreme Court decisions, especially civil rights decisions. Prerequisite: 102 or junior standing. Part of Civil Rights Theme. Three credits. Offered fall semester.

PLS 308 American Judicial Politics. Examines the American judicial system. Both state and federal courts are considered, with emphasis on the structure and procedure of these institutions as well as the political processes and behaviors that are such an important part of the contemporary judiciary. Prerequisite: 102 or junior standing. Three credits. Offered winter semester.

PLS 310 Politics and Health Policy. Explores contemporary issues in health policy and politics. Students will develop an understanding of the historical context, institutions, participants, and issues that structure health policy. Special emphasis on the politics of health care reform in the 1990s. Prerequisite: 102 or junior standing. Offered winter semester.

PLS 340 American Public Opinion and the Mass Media. An examination of the nature, measurement, formation, manipulation, and policy consequences of public opinion and political ideology in contemporary America, with particular emphasis on the role of the mass media in agenda-setting and persuasion. Part of Society and the Media theme. Prerequisite: 102 or junior standing. Three credits. Offered winter semester.

Political Science

PLS 341 Elections and Voting Behavior. An empirical analysis of the electoral systems through which citizens in democracies select leaders and influence public policy and factors that influence how and whether people vote; considers major recent changes in the United States' electoral system and alternatives to it. Part of the department's B.S. cognate. Prerequisites: 102, STA 215, and SS 300. Three credits. Offered winter semester.

International Relations

PLS 211 International Relations. Examination of the major theories and fields of study in international relations, focusing on conflict and cooperation among nations. Topics include power, alliances, national security, and international political economy. Special attention is devoted to the causes of war and the use of international law and organization to mediate international conflict. Part of Making War and Peace theme. Three credits. Offered fall and winter semesters.

PLS 212 Great Decisions. Defining moments in international relations and foreign policy decision-making are used to illustrate the impact of leaders, institutions, and public opinion on foreign policy. Students attend the Great Decisions lecture series and hear high-ranking foreign policy analysts discuss controversial issues in contemporary world affairs. Three credits. Offered winter semester.

PLS 312 U.S. Foreign Policy. Survey of factors and forces that shape the making and implementation of U.S. foreign and defense policy. Emphasis on the perceptions of decision-makers, the impact of the policy-making process on decisions, and actual policies made since World War II. Prerequisite: 102 or 103 or junior standing. Three credits. Offered fall semester.

PLS 313 International Organization. Analysis of the major global and regional institutions that promote order and cooperation in the international system, including the United Nations, World Bank, European Union, and NATO. Explores the theory and practice of government and nongovernment organizations in addressing issues such as poverty, human rights, and the environment. Prerequisite: 103 or 211 or junior standing. Three credits. Offered winter semester of even-numbered years.

PLS 314 International Law. A study of the general principles of international law with emphasis on the role of law in political and economic relations of nations. Prerequisite: 103 or 211 or junior standing. Three credits. Offered fall semester of even-numbered years.

PLS 315 International Political Economy. Empirical analysis of the politics of international economic relations, including the impact of domestic and international political variables on international economic cooperation and conflict. Part of the department's B.S. cognate. Prerequisite: 103 or 211 or ECO 210 or 211. Students taking the course as part of the B.S. cognate must also have completed STA 215 and SS 300. Part of Global Change Theme. Three credits. Offered fall semester.

PLS 321 The European Union. An examination of politics and policies in the European Union that includes participation in an international political simulation. Students spend three days in Indianapolis in April to take part in the Midwest Model EU. Topics include: integration theory, institutional reform, enlargement, and economic, social, environmental, and security policies. Prerequisite: 221 (or concurrent enrollment). Three credits. Offered winter semester of odd-numbered years.

Comparative Politics

PLS 221 Government and Politics of Western Europe. A comparative analysis of government and politics in France, Germany, Italy, the United Kingdom, and other European countries. Topics include political participation, parties and elections, interest groups, political economy, social welfare policy, and the European Union. Three credits. Offered fall semester.

PLS 240 The Holocaust. Investigates the psychological, social, political, historical, cultural, and economic sources of human aggression and cooperation by focusing on the Nazi destruction of European Jews in World War II. Also offered at HP 231. Three credits. Offered fall and winter semesters.

PLS 281 Comparative Political Systems: Canada. An analysis of the socioeconomic factors which influence the political processes, through a comparison of the political system in the United States with Canada. Fulfills World Perspectives requirement. Three credits. Offered fall semester of even-numbered years.

Political Science

PLS 282 Government and Politics of Russia and Eastern Europe. An analysis of the socioeconomic factors which influence the political processes, through a comparison of the political system in the United States with Russia and Eastern Europe. Fulfills World Perspectives requirement. Three credits. Offered winter semester of even-numbered years.

PLS 283 Government and Politics of China and Japan. An analysis of the socioeconomic factors which influence the political processes, through a comparison of the political system in the United States with China and Japan. Fulfills World Perspectives requirement. Three credits. Offered fall semester.

PLS 327 Politics of Developing Countries. An examination of government and political economy in developing countries. Topics include nation and state building, authoritarianism and democratization, and contemporary policy issues, including population growth, urbanization, hunger, and economic structural adjustment. Prerequisite: 103 or 211 or junior standing. Three credits. Offered winter semester.

Political Thought

PLS 231 Classical Political Thought. Survey of selected classical political theorists, including Plato, Aristotle, Cicero, Aquinas, and Machiavelli. Emphasis on the concepts of justice, human nature, and the state. Three credits. Offered fall semester of even-numbered years.

PLS 232 Modern Political Thought. Survey of selected modern political theorists, including Hobbes, Locke, Rousseau, Mill, and Marx. Emphasis on the concepts of the role of government, nature of justice, human nature, property, and political change. Three credits. Offered fall semester of odd-numbered years.

PLS 338 Citizenship. Citizenship addresses a core political issue—defining membership in a political community. Course studies classic statements about citizenship, the approach to citizenship taken historically in the U.S., a nation of immigrants, and several different contemporary visions of ethically appropriate citizenship. Part of Ethics theme. Prerequisite: Junior standing or consent of instructor. Three credits. Offered winter semester.

PLS 339 The Changing Face of Democracy. A seminar inquiry into such questions as: What is democracy? What are the arguments for and against democracy? What does it take to make democracy work? What are the new democratic forms emerging internationally? How do we categorize democracies? What are its prospects in the 21st century? Prerequisite: 102 or any comparative politics course. Three credits. Offered on sufficient demand.

Special Topics, Independent Study, Internship, Capstone

PLS 380 Special Topics in Politics. The study of special and interesting problems, domestic and/or international, will be scheduled from time to time. Three credits. Offered on sufficient demand.

PLS 399 Readings in Political Science. Independent advanced readings on selected topics. Prerequisites: Previous course work in the area of interest and permission of the instructor supervising the reading. A maximum of six credits in 399 and 499 and no more than nine credits in 399, 499, and 490 may be taken. One to three credits. Offered each semester. Offered on a credit/no credit basis.

PLS 490 Internship. Supervised field experience with a legislative office, executive agency, political campaign organization, interest group, lobbying organization, legal office, or international organization. The purpose is to allow the student to apply academic knowledge to a work experience. Prerequisites: junior status and permission of sponsoring instructor. Two to six credits. A maximum of six credits in 490 and no more than nine credits in 399, 499, and 490 may be taken. Offered each semester. Offered on a credit/no credit basis.

PLS 495 Seminar in the Study of Politics (the capstone). Review of the political science discipline; consideration of special problems in the study of politics (subject to be announced at least one term in advance). Research paper, readings, and discussions. Prerequisite: Senior standing in political science. Three credits. Offered winter semester.

PLS 499 Independent Research. Supervised individual research in an area of interest to the student which culminates in a research paper and oral report. Prerequisites: junior status and permission of the instructor supervising the research. A maximum of six credits in 399 and 499 and no more than nine credits in 399, 499, and 490 may be taken. Offered each semester. Offered on a credit/no credit basis.

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Prehealth Curriculum

Advisor: Bielak.

Freshman students intending to major in biomedical sciences, health sciences, therapeutic recreation, occupational safety and health, nursing, athletic training, pre-occupational therapy, pre-physical therapy, pre-veterinary medicine, or pre-physician assistant studies are advised to seek initial academic advising from the Prehealth Advisor. A program of first-year study will be configured for each student to support optimal progression and potential mobility between the programs of study.

Premedical and Predental Studies

Program advisors: T. Strickler, B. Adrian, B. Curry.

Allopathic medical (M.D.), osteopathic medical (D.O.), and dental schools seek students who are not only prepared for the rigors of the professional school classroom but who are also able to interact with patients in a sincere and understanding manner. Most schools require a relatively common core of science courses (one year of biology and/or health sciences, one year each of inorganic and organic chemistry, biochemistry, and one year of physics). Because these courses are part of the requirements for a number of majors at GVSU, no one specific major is recommended for premedical and predental students. Most premedical students at GVSU since 1980 have been biomedical sciences, biology, or chemistry majors. However, any major is possible as long as the student meets the science core requirements. Students should consult individual school bulletins for specific additional requirements.

Students are encouraged to decide on a major as soon as possible in their undergraduate career and to contact the Premedical and Predental Program Advisor to ensure that all necessary information is available to them. All premedical and predental students should enroll in HS 480, The Preprofessional Seminar, in the winter of their junior year. This course reviews testing and application procedures for medical and dental schools.

Both medical and dental schools require applicants to take a standardized admissions exam. Students normally take the Medical College Admissions Test (MCAT) or the Dental Admissions Test (DAT) in April of their junior year, although both of these exams are also offered in the fall. Students should plan their course scheduling so that they have met all required science courses before taking these tests.

An interdisciplinary Preprofessional Committee, composed of faculty members in the departments of biology, chemistry, health sciences, and the Office of Cooperative Education and Placement, assists premedical and predental students in their preparation for professional school application.

For more specific information, please refer to the sections on biology, biomedical sciences, and chemistry.

Psychology (PSY)

Chair: Hendersen. Professors: Adamopoulos, Bernstein, Hendersen, Herzog, C. O'Connor, Paschke, Portko; Associate Professors: E. Henderson-King, McGhee,

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R. O'Connor, Jr., Paszek, Rodriguez-Charbonier, Schaughency, Smith, Xu; Assistant Professors: Bower Russa, Burns, Chen, Galen, Gross, D. Henderson-King, Lou, Matthews, Pan, Rogers, Sá, Shupe, Tolman, Wolfe, Yarlus.

Students major in psychology for various reasons, and different sets of courses are likely to be appropriate for students with different goals. Students should plan their studies in consultation with an academic advisor early in and throughout their college career.

Psychology covers such a broad range of topics that psychologists specialize in many different areas, such as clinical psychology, counseling psychology, developmental psychology, physiological psychology, neuropsychology, industrial-organizational psychology, educational psychology, experimental psychology, cognitive psychology, social psychology, and cross-cultural psychology. Because the interests and training of the faculty members in the department cover all of these areas, we offer a wide range of courses in the undergraduate curriculum.

Requirements for the Psychology Major

The department offers the B.A. and B.S. degrees. The B.A. requires third-semester proficiency in a foreign language. The B.S. degree cognate sequence requirement is STA 215, PSY 300, and 400.

No more than six credit hours in PSY 399 and 499 may be counted toward the major. Psychology majors must take at least one third of the psychology credits constituting their major from the Psychology Department.

Only one of 301 or 364 may be counted toward the major.

SS 300 does not count toward the major in psychology.

Requirements include a minimum of 12 courses in psychology totaling 36 hours of credit, including PSY 101, 300, 400, and 492. In addition, one course must be taken from each of the six following categories:

1. Biological: 430, 431.
2. Developmental: 301, 331, 332, 364.
3. Personality/Clinical: 302, 303, 452.
4. Social Context: 355, 360, 362, 445.
5. Experimental/Labs: 361, 365, 410.
6. Integrative: 363, 405, 420.

Six hours of psychology courses may be of the student's choosing. (One of the following may be counted toward the major: SS 260, SS 261, SS 381, SS 382.)

Interdepartmental Majors

The following programs are majors that combine psychology with other disciplines. Students should note that for each of these programs, no more than six credit hours of 399 and 499 may be counted toward the major.

Behavioral Science Major (Psychology Concentration)

Psychology and Sociology cooperate to offer a major in behavioral science for those students who want a broad background in the behavioral sciences. (See Behavioral Science, listed separately in the catalog, for details.)

Biopsychology Major

Students may earn either a B.A. or B.S. degree in biopsychology. The B.A. degree requires third-semester proficiency in a foreign language. For the B.S. degree,

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students must complete the degree cognate sequence from either the Psychology or Biology Departments: either STA 215, PSY 300, and PSY 430 or 431; or BIO 112, 375, and 376, and STA 215 or MTH 125 or MTH 201.

The following psychology courses are required for biopsychology majors:

PSY 101 Introductory Psychology
PSY 300 Research Methods in Psychology
PSY 363 Learning
PSY 364 Life Span Developmental Psychology
PSY 400 Advanced Research in Psychology
PSY 420 Theories of Personality
PSY 430 Physiological Psychology

In addition, the related courses are required:

BIO 112 General Biology II
BIO 355 Human Genetics, or
Biology 375/376 Genetics and Genetics Lab
BIO 302 Comparative Vertebrate Anatomy
BIO 352 Animal Behavior
BIO 432 Comparative Animal Physiology
CS 150 Introduction to Computing
MTH 201 Calculus and Analytic Geometry I
STA 215 Introductory Applied Statistics
CHM 109 Introductory Chemistry
CHM 231 Introductory Organic Chemistry
CHM 232 Biological Chemistry
PHY 220 General Physics I
PHY 221 General Physics II

In addition, students must take the capstone course from either the Biology (495) or Psychology (492) Departments.

Psychology-Special Education Major

A Psychology-Special Education major is offered through the cooperation of the Psychology Department and the School of Education for those students who are preparing for a teaching career in special education. Because of the complexity of the program, students are advised to declare their major early and consult with their advisors regularly. The required 36 hours of courses for the major are:

PSY 301 Child Development
PSY 302 Psychology of Adjustment
PSY 304 The Psychology and Education of the Exceptional Child
PSY 324 Developmental Psychopathology
PSY 325 Educational Psychology
Choice of one:
PSY 331 Adolescent Development
PSY 357 Psychology of Language
PSY 365 Cognition
PSY 368 Psychology of Physical Disabilities
PSY 431 Introduction to Neuropsychology
PSY 452 Counseling: Theories and Applications
PSY 490 Practicum
ED 332 Methods and Strategies of Special Education Teaching
ED 361 Principles, Processes, and Methods in Special Education
ED 495 Diagnostic and Interpretive Procedures
ED 496 Remedial Procedures (two sections tied to endorsements)

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Students must complete all of the required courses in General Education, the required courses in the Elementary Education minor (except Education 320 and 460) and all the required Psychology courses (including PSY 310 and 326, which are required for endorsement but are not part of the major) by the time they enter the School of Education. Students should apply to the School of Education the semester prior to the one in which they wish to begin the Special Education Pre-Teaching sequence.

Students may earn either a B.A. or B.S. degree. The B.A. degree requires third-semester proficiency in a foreign language. The B.S. degree cognate sequence requirement is STA 215, PSY 300, and Education 495.

The psychology-special education major is only part of what is required for teacher certification. Other requirements are described in the Education section: Elementary Teacher Certification (Special Education Endorsement).

Requirements for Psychology Minors

Psychology minors are required to take a minimum of six courses in psychology totaling at least 20 semester hours of credit. PSY 101 is required, as is a methods course chosen from PSY 300, SS 300 or, if the student is a social work major, SW 430. Minors must take one course from three of the six categories listed above for the psychology major. No more than three credit hours in PSY 399 and 499 may be counted toward the minor. Psychology minors must take at least one-third of the credits constituting their minor from the Psychology Department. Only one of 301 or 364 may be counted toward a minor.

Minor in Aging and Adult Life

The Psychology Department participates in the multidisciplinary minor in aging and adult life. See the "Aging and Adult Life" section for further information.

Career Opportunities

About half of all psychologists are employed in educational settings; the second largest group work in human services settings, including government agencies, hospitals, clinics, and private practice; some work in business and industry. Working as a psychologist requires at least a master's degree, and for many, such as those in colleges and universities, a doctoral degree is necessary.

Students who major in psychology and then seek employment at the bachelor's level find jobs in such human services settings as mental hospitals, residential institutions for the retarded, alcohol and drug abuse centers, juvenile correctional facilities, vocational rehabilitation centers, and residential facilities for emotionally disturbed children and adolescents.

Graduates may also find employment in business and industry and in government at the national, state, or local levels, where a general liberal arts degree in a social science is required.

Psychology may be a minor combined with another major leading to secondary certification and the teaching of psychology at the high school level. Psychology-special education can serve as a major for obtaining teaching certification at the elementary level.

Courses of Instruction

PSY 101 Introductory Psychology. General survey of psychology, the scientific study of behavior and experience, including overt actions and mental activity. Covers how psychologists think and act as scientists and how the study of its subject matter may be integrated at

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the biological, psychological, and social levels of analysis. Fulfills Social Sciences Foundation requirement. Three credits. Offered fall and winter semesters.

PSY 300 Research Methods in Psychology. Examination of basic research methods in psychology. Emphasis on the logic of psychological research, the formulation and testing of hypotheses, research design, sampling procedures, data collection and analysis, and the ethics of conducting research. Prerequisite: 101 and STA 215. Three credits. Offered fall and winter semesters.

PSY 301 Child Development. Explores the development of the child from conception to adolescence in the home, school, and society. Interactions among physical, cognitive, personality, and social developments are considered. Practical implications for child development of theories and research on these topics will be emphasized. Field observation required. Only one of 301 or 364 may be counted toward a major or minor. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 302 Psychology of Adjustment. Psychological principles involved in individual adjustment to oneself and the sociocultural environment. Attention is also given to coping with stress and to the prevention of maladjustment. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 303 Abnormal Behavior. Description and analysis of a wide range of behaviors considered abnormal. Some consideration of theories, etiologies, and treatment approaches. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 304 The Psychology and Education of the Exceptional Child. Study of exceptional children and their problems. Emphasis on understanding the nature and extent of problems of various types of exceptionalities and on possible ways of dealing with them. Prerequisites: 101 and 301. Three credits. Offered fall and winter semesters.

PSY 305 Infant and Early Childhood Development. Examines the development of the child from conception through age five. Theories and research in the areas of biological, perceptual, physical, cognitive, social, and emotional development, as well as their interrelationships, will be presented and discussed. Field observation required. Prerequisite: 101. Three credits. Offered on sufficient demand.

PSY 306 Issues in Early Childhood Development. Discussion and possible applications of developmental issues in early childhood. Focuses on issues such as the role of play, parenting, development of language skills, nutrition, health and safety, and ethical considerations. Prerequisites: 301 or 305 or 364. Three credits. Offered on sufficient demand.

PSY 307 Application of Developmental Needs of Young Children. An applied course that provides a survey of young children's abilities to understand, think, express, and interact, and the implementation of activities that support and enhance the development of those abilities. Prerequisite: 301 or 305 or 364. Three credits. Offered on sufficient demand.

PSY 310 Behavior Modification. Study of the application of learning principles, techniques, and procedures to the understanding and treatment of human psychological problems in a wide range of settings. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 311 Controversial Issues in Psychology. Develops the skills of critical thinking (analyzing the arguments of other people and forming one's own reasoned judgments) about controversial issues. Skills are applied to selected psychological issues, such as "Is intelligence inherited?" and "Can suicide be rational?" Three credits. Offered once a year.

PSY 315 The Psychology of Sex Differences. A critical examination of the psychological research regarding purported mental, emotional, and behavioral differences between women and men, theories of the development of gender identity, and the etiology of differences. Issues discussed will include the construction of difference and the cultural and ideological uses of the rhetorics of difference. Three credits. Offered winter semester.

PSY 316 The Psychology of Human Intimacy and Sexuality. A comparative analysis of sexual practices, reproductive strategies, and intimate relationships using competing viewpoints (e.g., cultural psychology and evolutionary psychology). Topics may include comparing dating and cohabiting; married and gay and lesbian couples; factors in relationship stability and divorce; and the social control of sexuality and reproduction. Prerequisite: 101. Three credits. Offered once a year.

PSY 317 Human Relations. Readings and classroom experiences designed to develop and improve helping skills (active listening, paraphrasing, empathy, open-ended questions), assertiveness, and conflict resolution. Consideration will be given to application of these

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skills in various personal and professional settings such as health care, social work, and criminal justice. Three credits. Offered on sufficient demand.

PSY 320 Psychology of Sport and Recreation. The study and analysis of the psychology of sport. Consideration will be given to motivation, personality characteristics, neuropsychological development and learning, and psychological preparation of athletes. Prerequisite: 101. Three credits. Offered on sufficient demand.

PSY 324 Developmental Psychopathology. Examination of a wide range of childhood and adolescent disorders using developmental theory and research to inform issues related to classification, assessment, and intervention. Explores the biological basis of behavior and the role of broader systems (e.g., family, school, community) in the development and alleviation of psychopathology. Prerequisite: PSY 101 and PSY 301. Three credits. Offered fall and winter semesters.

PSY 325 Educational Psychology. Study of psychological principles applied to classroom instruction, including development, nature and conditions of learning, motivation, individual differences, home and school adjustment, evaluation, and test construction. Prerequisites: 101 and 301. Three credits. Offered fall and winter semesters.

PSY 326 Mental Retardation. Identification, classification, and etiology of mental retardation and associated problems. Methods of care, treatment, and education are considered. Field observation required. Prerequisites: 101 and 301. Three credits. Offered fall and winter semesters.

PSY 331 Adolescent Development. Adolescence seen as a developmental stage; an examination of the complexities of the adolescent experience, the development of identity, intellect, and relationships with the adult world. An examination of historical and cultural variables as well as consideration of problem behaviors. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 332 Adult Development and Aging. A review of post-adolescent development from young adulthood through old age. Changes in family and work roles, personality, cognition, perception, and health will be discussed. Prerequisite: 101. Three credits. Offered once a year.

PSY 349 Psychology Applied to Media. Focuses on two major content areas in the analysis of media: (1) study of the ways in which humans receive and interpret visual and auditory information (an understanding of perception will be emphasized in projects and analyses of media materials), and (2) study of communication theory in media as it relates to persuasion, attitude, and opinion change. Part of Society and the Media theme. Three credits. Offered on sufficient demand.

PSY 355 Psychology and Culture. Exploration of the interaction between ecological and cultural variables and psychological processes. Topics include cultural influences on perception and cognition, personality, cognitive and social development, social relations, interpersonal and intergroup behavior, and psychopathology. Prerequisite: 101. Three credits. Offered on sufficient demand.

PSY 357 Psychology of Language. Psychology of Language is a discipline that focuses on psychology's insights into human language. Topics include biological bases of language; human language and other communication systems; lexical, sentence, and discourse processing; speech production and perception; acquisition of spoken and written language; bilingualism; and the relationship between language and thought. Three credits. Offered fall and winter semesters.

PSY 360 Social Psychology. Relation of the individual to the social environment with emphasis on personality development and role behavior. Analysis of interpersonal behavior with reference to problems of conformity and influence. Prerequisite: PSY 101 or SOC 201. PSY 360 is equivalent to SOC 360. Students may not receive credit for both PSY 360 and SOC 360. Three credits. Offered fall and winter semesters.

PSY 361 Perception. Study of how humans organize and interpret stimulation arising from objects in the environment. Review of theory, methodology, and research findings will be emphasized. Part of Perception Theme. Prerequisite: 101. Laboratory. Three credits. Offered once a year.

PSY 362 Environmental Psychology. Study of the relationships between the physical environment, natural and human-made, and the behavior of human beings. The course focuses on

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the perceptual, cognitive, and motivational aspects of the human-environmental interaction. Three credits. Offered once a year.

PSY 363 Learning. Major theoretical views of learning (behavioristic, cognitive, humanistic, etc.) will be evaluated for their ability to resolve questions about the learning process. Projects will engage students in the analysis of the important factors influencing learning. Laboratory. Prerequisites: 101, and 300 or SS 300. Three credits. Offered once a year.

PSY 364 Life Span Developmental Psychology. A survey of theories and research on human development from conception through death. Physical, perceptual, cognitive, personality, social, and emotional changes are reviewed and their interrelationships discussed. Does not satisfy the requirements for teacher certification. Either but not both 301 and 364 may be counted toward a major or minor. Part of the Human Journey theme. Prerequisite: 101. One to three credits. Offered fall and winter semesters.

PSY 365 Cognition. Study of methodology and research findings concerning human and animal information processing. Includes a review of literature pertinent to subject and task variables as they relate to attention, memory, and decision behavior during thinking. Laboratory. Prerequisite: 101. Offered once a year.

PSY 367 Health Psychology. Explores the relationships among psychology, health, and illness and behavioral medicine. Considers important contemporary health issues from biopsychological and psychosocial perspectives and the role of psychology in health promotion. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 368 Psychology of Physical Disabilities. Examines the effect of physical disabilities on body-image, self-concept, emotions, and interpersonal functioning. Various approaches to the psychological rehabilitation of the disabled person will be compared and evaluated. Part of Health, Illness, and Healing Theme. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 370 Primate Behavior/Field Study. Study of primate behavior in Costa Rica. Students will live and work in the field, develop project, collect data on one of two primate species, present results at course finale conference, and participate in discussion. Lecture, discussion, and field study. Prerequisite: 101 or consent of instructor. Six credits. Offered spring or summer semester.

PSY 375 Comparative Psychology. Study of the relationship between human and animal behavior. Includes discussion of mind in nonhumans, the sociobiology debate, natural selection and human behavior, including language and sexual behavior, and implications for child development and schooling. Includes zoo or field observations. Lecture and field study. Prerequisite: 101. Three credits. Offered fall semester.

PSY 377 The Psychology of the Quest. Explores the concept of “questing” as one of the stories that humans use to explain human life. The field of Jungian archetypal psychology will serve as the primary organizing structure for studying these meaning-making stories. Part of the Human Journey theme. Prerequisite: Junior standing. Three credits. Offered winter semester.

PSY 380 Seminar in Selected Topics. Consideration of selected topics not ordinarily dealt with in other courses. Topics to be determined by faculty interest and student request. Consult class schedule for specific topics. Can be repeated, but no more than six credits in 380 can be applied toward a psychology major. Prerequisite: Variable. One to four credits.

PSY 381 Group Dynamics. Contemporary concepts, hypotheses, and research in small-group theory. Students will study the ways groups affect the behavior, thinking, motivation, and adjustment of individuals as well as the effect of an individual's characteristics on groups. Principles will be applied to particular kinds of groups, including therapy groups and family groups. Prerequisite: PSY 101 or SOC 201. Three credits. Offered one a year.

PSY 399 Independent Readings. Independent readings in a selected topic encountered in a previous course or not covered in any existing course. Courses in the existing curriculum are not ordinarily offered as independent study. Prerequisite: Approval of instructor before registration. Students may not apply more than six credits (singly or combined) of 399 and 499 toward a major in psychology. Prerequisites: 101 and permission of instructor. One to three credits. Offered fall and winter semesters.

PSY 400 Advanced Research in Psychology. Research in designated areas (e.g., perception, cognition, social, developmental, etc.). See current Schedule of Classes for areas offered. Original research project required. Formal presentations of research proposals and project

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reports, following APA style, required. Prerequisites: 101, 300, and course in relevant content area, or permission of instructor. Three credits. Offered fall and winter semesters.

PSY 405 History and Systems. A systematic historical coverage of the theoretical foundations of psychology. The contributions of the major schools of psychology as well as the influence of related areas will be emphasized. Prerequisites: 101, and 300 or SS 300. Three credits. Offered once a year.

PSY 410 Tests and Measurements. A survey of test construction principles and psychological-educational measurement. Problems of reliability, interpretation, ethics, and the consequences of testing will be explored. A wide variety of commonly used tests will be reviewed and experienced. Laboratory. Prerequisite: 101. Three credits. Offered once a year.

PSY 413 Psychology of Gender Archetypes. Introduces students to the concepts of archetypes in general and gender archetypes in particular. Study will include the psychological, historical, and anthropological manifestations of the archetypes and the underlying theoretical perspectives. Prerequisite: Junior standing or permission of instructor. Three credits. Offered winter semester.

PSY 420 Theories of Personality. Critical exploration of major contemporary theories of personality and related research. Relative merits of each approach will be discussed with special emphasis on questions of structure, dynamics, and development of individuality. Prerequisite: 101. Three credits. Offered fall and winter semesters.

PSY 430 Physiological Psychology. This course emphasizes the study of bodily structures, processes, and mechanisms related to various aspects of the organism's interactions with the environment. Topics covered include neurophysiological correlates of cognition, memory, motivation, emotion, attention, and sensory processes. Prerequisites: 101, and 300 or SS 300. Three credits. Offered fall and winter semesters.

PSY 431 Introduction to Neuropsychology. The physiology, organization, and functions of the human brain will be examined. Current problems and findings in sleep and dreaming, memory, consciousness, learning, and perception will be explored. Prerequisites: 101, and 300 or SS 300. Three credits. Offered fall and winter semesters.

PSY 445 Industrial/Organizational Psychology. The application of psychological facts and principles to business and industry. Topics include selection, placement, and evaluation of employees, work motivation, job satisfaction, leadership and management, organization and behavior, and organization development. Prerequisite: 101. Three credits. Offered once a year.

PSY 452 Counseling: Theories and Applications. Survey of varying theoretical viewpoints: psychodynamic, behavioral, humanistic, eclectic. Analysis of and experiential exposure to techniques and methods of application in a variety of settings, such as public school activities, personal and vocational counseling, social work, public service activities, personnel work, etc. Prerequisites: 101 and 303. Three credits. Offered fall and winter semesters.

PSY 490 Practicum. Up to 20 hours a week commitment working in a psychologically relevant capacity at a human service agency. Daily log and prearranged tutorials required. Six credit total course limit. Prerequisites: 101, permission of instructor. Six credits (three credits under special circumstances). Credit/no credit. Offered fall and winter semesters.

PSY 492 Advanced General: The Capstone. Survey of major viewpoints on research findings in contemporary scientific psychology. Emphasis on integration of those viewpoints and their relations to other disciplines, such as biology, medicine, social sciences, philosophy. Prerequisite: Senior standing in fall of senior year. Three credits. Offered fall and winter semesters.

PSY 499 Independent Study and Research. Independent study and research in an area of mutual interest to the student and faculty member. Students may not apply more than six credit hours (singly or combined) of 399 and 499 toward a major in psychology. Prerequisites: 101 and permission of instructor. One to four credits. Offered fall and winter semesters.

Social Science Courses

One of the following interdisciplinary social science courses may be counted toward the psychology major: SS 260, 261, 381, or 382. SS 300 does not count

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toward the psychology major. Students should see their advisors for further information. For course descriptions, see the Social Science section of the catalog.

The School of Public and Nonprofit Administration (PA)

Director: Balfour. Professors: Mast, Payne; Associate Professors: Balfour, Jelier, Sellers-Walker, VanIwaarden; Assistant Professors: Hoffman, Mavima, Robbins.

Grand Valley offers both baccalaureate and master's programs in public administration. The programs are housed in the Social Sciences Division.

The mission of the School of Public and Nonprofit Administration is to educate students for lives of active citizenship and for professional careers in public and nonprofit organizations. We are committed to developing in undergraduate and graduate students the capabilities for ethical judgment, critical thinking, and the core competencies necessary to fulfill multiple roles as effective members of their local, national, and global communities.

Career Opportunities

Public administration graduates find employment in government, health administration, criminal justice, and nonprofit and private organizations. Advancement into executive-level positions usually requires previous experience and/or a master's degree.

Examples of positions in government, nonprofit, or health administration include city manager, department head, program or agency director, management or program analyst, budget officer, personnel manager, classification specialist or technician, labor relations specialist, program evaluation specialist, or equal opportunity officer. Positions in criminal justice include court administrator and, for those who qualify as sworn officers, police chief, federal, state, or local law enforcement officer, or positions in the management of agencies dealing with security, corrections, parole, and probation, or narcotics and dangerous drugs. Graduates may qualify for similar positions in business, higher education, journalism, consulting firms, nursing homes and hospitals, planning agencies, and in neighborhood and community organizations.

Internships

Students without responsible degree-related experience or those seeking new careers are strongly encouraged to enroll in an internship class in the latter part of their studies. The internship provides an opportunity for the student to sample prospective employment and for the agency to observe potential applicants for employment. A major objective of the program is to establish a mutually beneficial and reinforcing experience for the student to "learn by doing" and for the sponsoring organization to use the apprentice in studying problems and testing new ground.

Interns work under the direct supervision of agency staff on assignments that help them gain meaningful understanding about the nature and functioning of the organization. Throughout the internship, the intern's field service is evaluated by the agency supervisor, while the academic component (written reports, a paper, or both) is evaluated by the academic coordinator.

Public and Nonprofit Administration

Major in Public Administration (B.S. or B.A.)

Associate Director for Undergraduate Programs: Mast.

The baccalaureate program provides professional orientation and career specialization on a sound liberal arts foundation. It is an interdisciplinary program designed to provide students with the skills and knowledge necessary for successful careers in public and nonprofit organizations. The curriculum emphasizes general public administration knowledge but also requires students to concentrate in selected areas of emphasis.

Both freshmen and transfer students who are admitted to Grand Valley are eligible for admission to the program. Students interested in public administration should seek the advice of faculty in the program, especially when choosing courses to fit various needs and interests.

The prerequisite for the public administration major is Political Science 102. The public administration major consists of 48 credit hours, which includes three credit hours of required internship (PA 490). Students must complete 24 credit hours of courses by taking PA 307; and PA 270, 360, 375, 376, 420, and 495. Students must also complete three credit hours of elective by taking one of the following: PA 311, PA 330, PA 335, or PA 372. Majors seeking a B.A. degree must demonstrate third-semester proficiency in a foreign language. Majors seeking a B.S. degree must complete the cognate sequence STA 215, SS 300, and PA 439.

Students must also select two specialties and take at least nine credit hours from each, for a total of 18 credit hours. *Some specialties also require that a specific PA course be taken as an elective.* PA 370, PA 380, PA 490 and PA 491 may count in any area with an academic advisor's approval.

Community Development and Planning.

GPY 309 Introduction to City and Regional Planning (Required)

GPY 307 Introduction to Computer Mapping/Geographic Information Systems

HST 327 Urban History of the United States

PLS 338 Citizenship

SOC 382 Minority and Ethnic Relations

SS 390 Leadership Dynamics

(The B.S. cognate course PA 439, Community Analysis, is also required.)

Public Personnel Management.

PHI 325 Ethics in Professional Life

PSY 317 Human Relations

LIB 331 Person and Profession

MGT 334 Labor and Employment Law

MGT 355 The Diversified Workforce

SS 390 Leadership Dynamics

MGT 432 Grievance Administration, Arbitration, and Collective Bargaining

Information Technology

CS 231 Problem Solving Using Spreadsheets

CS 233 Microcomputer Database Management

CS 238 Desktop Media

CS 237 Microcomputer Communications

GPY 307 Introduction to Computer Mapping/Geographic Information Systems

MGT 368 Management Information Systems

GPY 407 Advanced GIS

(The elective PA 311, Public Sector Information Technology, is also required)

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Local Economic Development

HTM 101 Fundamentals
ECO 200 Business Economics
BUS 201 Legal Environment for Business
CAP 220 Fundamentals of Public Relations
MGT 339 Business and Society
ECO 435 Urban Economics
ECO 436 Real Estate Economics

Public and Nonprofit Budgeting and Finance

ECO 210 Introductory Macroeconomics
ECO 211 Introductory Microeconomics
ACC 212 Principles of Financial Accounting
ACC 213 Principles of Managerial Accounting
CS 231 Problem Solving Using Spreadsheets
FIN 331 Risk and Insurance
PA 335 Grant Writing

Community Health

OSH 110 Introduction to Occupational Safety and Health
REC 110 Foundations of Recreation and Leisure
COM 209 Health Communication Systems
HS 220 Health Care Delivery
HS 222 Introduction to Public Health
PLS 310 Politics and Health Policy
HS 340 Health Care Management
MKT 350 Marketing Management
(The elective PA 330, Health Care Financing, is also required)

Minor in Public Administration

Students minoring in public administration are required to complete the following 21 credits: PA 307 or PLS 203; PA 270, 360, 375, 376, 420, and 495.

Minor in Planning

Students with a minor in planning should refer to City and Regional Planning in this catalog.

Undergraduate Courses of Instruction

PA 270 Public Administration. A survey of what is involved in the administration of public and nonprofit entities. How to hire, evaluate, and reward the right people, developing and carrying out public policies, preparing and interpreting budgets, dealing with various pressure groups and governmental agencies, and organizing human resources to carry out the public's business honestly and effectively. Several case studies will be used. Fulfills Social Sciences Foundation. Three credits. Offered fall and winter semesters.

PA 307 Local Politics and Administration. Comparative study of government systems, rural and urban. Students specialize in their own governments. Part of Cities Theme. Three credits. Offered fall and winter semesters.

PA 311 Public Sector Information Technology. Examines the use of computer applications to consume, manage, analyze, and disseminate public information, improve worker productivity and achieve agency mission. Attention is given to improving students' technical acumen and to examining important public / nonprofit sector IT issues. Three Credits. Offered fall semester.

PA 330 Health Care Financing. Explores the complexity of the financing of health care in the U.S. with emphasis on its impact on the delivery of services. Three credits. Offered winter semester.

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PA 335 Grant Writing. Provides instruction in writing grants, evaluating grant proposals, and in researching and cultivating funding sources. Students will gain an understanding of the link between organizational mission and program development by preparing a full proposal to meet a real-life community need. Three credits. Offered winter semester.

PA 360 Voluntarism and the Nonprofit Sector. A survey of voluntarism and the nonprofit sector in America. Historical development, policy questions, funding issues and trends of major subsectors (religion, education, health, social services, the arts) are examined. The sector's interdependence with government and business and its basis in philanthropy and democracy are interwoven throughout the topics. Three credits. Offered fall and winter semesters.

PA 372 International and Comparative Administration. An examination of administrative structures in selected countries; the relationship of administrative structures to political, economic, and cultural systems; comparative administration and developmental models. Case studies from the U.S., Europe, Latin America, and Asia may be used. Three credits. Offered on sufficient demand.

PA 375 Public Budgeting and Finance Administration. The content, tools, and techniques of budgeting from the perspectives of the manager, legislator, and citizen. A survey of revenue raising methods and administration. Applicable to public jurisdictions and nonprofit agencies of all sizes. Includes accounting principles essential to public management. Three credits. Offered fall and winter semesters.

PA 376 Public Personnel Policy and Administration. Managing the human resources of government and nonprofit agencies. An examination of public personnel functions (recruitment, training, employee relations, remuneration, conduct, and organization) and special issues such as collective bargaining and equal opportunity employment. Three credits. Offered fall and winter semesters.

PA 380 Special Topics in Public Administration. Consideration of selected topics not ordinarily dealt with in other courses. Topics to be determined by faculty interest and student request. Prerequisite: Permission of instructor. Three credits. Offered on sufficient demand.

PA 399 Independent Readings in Public Administration. Independent, supervised readings on selected topics that are not dealt with in depth in another course. Prerequisite: Junior or senior status and permission of instructor. One to three credits. Offered each semester. Offered on a credit/no credit basis.

PA 420 Organization Theory and Dynamics. An exploration of the various theories that inform the structures of organizations and the resulting dynamics of accommodation, direction, control, permission, and ethical dilemmas that are set in place within and between the public structures of our society. Prerequisites: 270 and senior standing. Three credits. Offered fall and winter semesters.

PA 439 Community Analysis. Basic analytical concepts, including group dynamic skills, housing and land use surveys, historic district analysis, and neighborhood identification. Three credits. Offered fall and winter semesters.

PA 490 Public Administration Internship. Supervised internship in a local or state agency, program, or legislative body. The purpose of the internship is to allow the student to apply academic knowledge of professional skills to a work situation. Prerequisite: Junior or senior status, permission of instructor, and completion of an application form obtained during the semester before the internship. Three credits. Offered every semester. Offered on a credit/no credit basis.

PA 491 Public Administration Internship II. A second internship, to be taken concurrently with 490 when field experience warrants it, or may be taken after 490 by those taking an additional fieldwork experience. Prerequisites: Senior status, permission of instructor, and completion of an application form obtained during the semester before the internship. Three credits. Offered every semester. Offered on a credit/no credit basis.

PA 495 Public Policy (Capstone). This course uses a policy studies framework to examine systematically the nature, causes, and effects of alternative public policies, with an emphasis on implementation. Prerequisite: Senior standing. Three credits. Offered fall and winter semesters.

PA 499 Independent Study and Research in Public Administration. Independent research in the student's area of interest, supervised by public administration faculty and culminating

Public and Nonprofit Administration

in a written and oral report. Prerequisite: Senior status and permission of instructor. Three credits. Offered every semester. Offered on a credit/no credit basis.

Master of Public Administration

M.P.A. graduates are leaders. They lead their communities and organizations on the basis of advanced administrative skills with a dedication to democratic values and public service. In today's global society, such leadership takes many forms and occurs in a variety of settings. The mission of the graduate programs in public and nonprofit administration is to develop both the general knowledge and specific abilities needed for leadership in a fast changing world. The M.P.A. curriculum is designed to prepare students to act ethically and effectively in public management/urban and regional affairs, nonprofit management, criminal justice, and health care administration, and to transcend traditional boundaries in the pursuit of prosperous, safe, and healthy communities.

As a professional school in an urban setting, the School of Public and Nonprofit Administration is actively involved with the community in professional service activities and applied research. The program offers flexibility and innovation in curriculum design to meet the diverse educational needs of part-time and full-time students, including evening and weekend courses and workshops, and Internet-enhanced learning. Because careers in administration are varied and include the public, private, and nonprofit sectors, the curriculum is designed to develop advanced executive abilities through a combination of core competencies and specialized areas of concentration. Satisfactory completion of the program of study leads to the award of the M.P.A. degree.

Admission

The minimum requirements are listed in the Admissions section of the catalog. Applicants must have a minimum undergraduate GPA of 3.0 or higher calculated on the last two years of undergraduate work. In addition, applicants must submit an application essay and three letters of recommendation.

Applicants with less than a 3.0 grade point average may be admissible if other indicators predict a likelihood of academic success. These may include five or more years of professional work experience since receiving the baccalaureate degree; a personal interview; and/or a GRE or GMAT score. Decision of the admissions committee is final.

Completed applications are thoroughly reviewed by the school's admissions committee. To ensure full consideration for fall admission, all application materials should be received by May 1. Early application is strongly encouraged. The committee reserves the right to require additional information it deems appropriate and necessary. The majority of students admitted to the school will begin their studies in the fall semester. Late applicants will be admitted on the basis of remaining vacancies. January applications should be received by November 1.

Students who do not meet all requirements but whose experience, achievement, etc., may warrant an exception will be invited for a personal interview to discuss admission and further explore the program. Final admission decisions are promptly communicated in writing to each applicant.

Students in the process of applying for admission may enroll in PA 520 in a nondegree status.

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Workshops

The M.P.A. program offers workshops on a credit (one to three credits) or non-credit basis. The format and scheduling of the workshops as well as other coursework are flexible and may include weekend meetings. Students are admitted to the workshops with advisor approval. No more than six credits of workshops may be applied to fulfill degree requirements.

Transfer Credit

A maximum of 12 semester hours of transfer credit will be given for appropriate graduate courses completed within the previous five-year period with a grade of B or better at another college or university. These transfer credits may be substituted for required courses or given general credit as determined by the faculty.

M.P.A. Degree Requirements

The M.P.A. degree consists of a minimum of 42 credit hours. The program core includes 15 credit hours, as follows:

PA 520 Foundations of Public Management
PA 611 Research Methods
PA 612 Human Resources in Organizations
PA 614 Organization Theory
PA 619 Management Seminar

Students must also select one concentration specialization of 15 credit hours. In addition, students may choose 12 credit hours from an array of electives. Students must meet with an advisor upon entry into the program to develop a program of study.

Concentrations (15 credit hours)

Public Management and Urban/Regional Affairs

PA 531 Accounting for Public Managers
PA 535 Grant Writing
PA 610 Economic Analysis for Public Administrators
PA 615 Public Financial Management*
PA 616 Public Policy Analysis*
PA 620 Metro Politics and Administration*
PA 621 Administrative and Regulatory Law*
PA 623 Labor Management in the Public Sector
PA 641 Economic Development
PA 642 Conflict Management
PA 643 Strategic Management and Planning
PA 680 Special Topics Seminar

BUS 563 Computers and Information Systems
or MGT 662 Management Information Systems

Electives (up to 12 credits) may be selected from General Management or Additional Options areas.

Health Administration

PA 630 Health Administration and Service*
PA 631 U.S. Health Policy and Politics*
PA 632 Health Services Financial Management*
PA 633 Health Economics*

*Required course.

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PA 634 Health Care Law and Ethics*

Electives (up to 12 credits) may be selected from Public Management, General Management, or Additional Options areas or from the following health electives:

- PA 635 Hospital Organization and Management
- PA 637 Ambulatory Care Organization and Management
- PA 638 Long-Term Care Organization and Management
- PA 639 Issues in Occupational Health
- PA 640 Marketing Health and Human Services

Nonprofit Management and Leadership

- PA 535 Grant Writing
- PA 643 Strategic Management and Planning
- PA 660 The Nonprofit Sector: History and Ethics*
- PA 661 Nonprofit Management Practices*
- PA 662 Nonprofit Resource and Financial Management*
- PA 663 Nonprofit Organization and Public Policy*
- PA 664 Management of Religious Organizations
- PA 665 Nonprofit Boards, Trustees, and Governance
- PA 641 Economic Development
- PA 642 Conflict Management
- PA 643 Strategic Management and Planning
- PA 680 Special Topics Seminar

Electives (up to 12 credits) may be selected from the non-required courses listed above, from other Public Administration concentrations, or appropriate offerings from other programs and schools with approval of advisor.

Criminal Justice

- CJ 601 Criminal Justice Leadership*
- CJ 602 Legal and Ethical Issues
- CJ 603 Community and Media Relationships
- CJ 604 Criminal Justice Policy*
- CJ 605 Program Evaluation *or*
- CJ 606 Information Systems
- CJ 680 Special Topics Workshop**
- PA 615 Public Financial Management*
- PA 680 Special Topics Seminar**

Electives (up to 12 credits) may be selected from Public Management, General Management, or Additional Options areas.

Additional Options

Students may take up to three hours from the following workshops with approval of an advisor (a maximum of three credits may be applied to the degree):

- PA 550–559 Public Administration Workshops (one to three credits)
- PA 560–569 Special Topics Workshops (one to three credits)

Students may take up to three hours of the following:

- PA 699 Directed Readings

All pre-career students are strongly encouraged to take at least three internship credits from:

*Required course. Prerequisite for all criminal justice graduate courses (may be taken concurrently).

**One to three credits. May be used as elective hours.

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PA 690 Public Administration Internship I
PA 691 Public Administration Internship II

Students are not required to submit a thesis, but those pursuing policy expertise or those considering going on in doctoral studies are strongly encouraged to take up to six hours of

PA 693 Research Proposal
PA 695 Master's Thesis

Graduate Certificate in Nonprofit Leadership

The Graduate Certificate in Nonprofit Leadership provides a unique opportunity to pursue a theoretically based and practically oriented education in leadership for nonprofit professionals. This program offers nonprofit managers the up-to-date professional skills and perspectives required to lead their organizations in the rapidly changing and complex nonprofit sector of society.

The Certificate in Nonprofit Leadership is designed for the experienced nonprofit manager who has an advanced degree or an undergraduate degree and several years of professional experience. It is intended for those holding or seeking executive positions who wish to further their education without pursuing the full requirements for a graduate degree. However, courses and workshops taken in the certificate program may be applied toward the master of public administration.

Admission

Applicants for the Graduate Certificate Program in Nonprofit Leadership must

1. Apply to the School of Public and Nonprofit Administration.
2. Hold an advanced degree or a bachelor's degree with a minimum GPA of 3.0 in the last two years of undergraduate work.
3. Have at least three years of professional experience in nonprofit organizations.
4. Submit official transcripts, an application essay, and three letters of recommendation.

The certificate requires the completion of 21 credit hours of graduate study.

Required courses (15 credit hours)

PA 520 Foundations of Public Management
PA 660 Nonprofit Sector: History and Ethics
PA 661 Nonprofit Management Practices
PA 662 Nonprofit Resource and Financial Management
PA 663 Nonprofit Organization and Public Policy

Elective courses (six credit hours)

PA 535 Grant Writing
PA 550 Workshop
PA 643 Strategic Planning and Management
PA 664 Management of Religious Organizations
PA 665 Nonprofit Boards, Trustees, and Governance

Graduate Courses of Instruction

PA 520 Foundations of Public Management. An exploration of administrative management functions, structures, and methods and their intersection with organizational behavior. An introduction to key management systems and processes, an examination of ecological influences on them, and an overview of the behavioral and ethical dimensions of management. Primary focus will be on agencies and issues in the public sector. Three credits. Offered fall and winter semesters.

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PA 531 Accounting for Public Managers. A study of fund accounting principles used in government and nonprofit institutions. Course specifically offered for students who have had no prior accounting. Three credits. Offered spring/summer semester.

PA 535 Grant Writing. Instruction in finding grant sources, writing grants, developing grant budgets and evaluating grant proposals. As part of this course, students will be expected to write and submit at least one actual grant proposal. Three credits. Offered once a year.

PA 550-555 Public Administration Workshops. Advanced-level workshops directed toward public sector professionals focusing on specific public sector problems and policies. Format and scheduling are flexible and may include weekend sessions. Topics will vary and prerequisites may be established. One to three credits. Offered upon sufficient demand.

PA 560-565 Special Topics Workshops. Advanced-level workshops directed toward generic, topical problems affecting public affairs. Format and scheduling are flexible and may include weekend sessions. Topics will vary and prerequisites may be established. One to three credits. Offered upon sufficient demand.

PA 610 Economic Analysis for Public Administrators. Explores the principles and theories of economics as they apply to the public sector, with a focus on the public aspects of economic analysis. The primary purpose of the course is to improve the students' understanding of how basic economic analysis and reasoning can be applied by public administrators. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered every other year.

PA 611 Research Methods. An advanced survey of the most important and frequently used methods and techniques of research and analysis used by administrators and planners. Course also will familiarize students with the use of computers for such research and analysis. Emphasizes the application of research and analysis in public administration. Prerequisites: Admission to the M.P.A. program or permit. Appropriate background in statistics, computer science, and research methods. Three credits. Offered winter semester.

PA 612 Human Resources in Organizations. An accelerated survey of policies and issues in human resource management in public and nonprofit contexts. Focus is on human values, behavior, ethics, and human interactions in organizations. Three credits. Offered winter semester.

PA 614 Organization Theory. Explores the various theories of organizations. Focus is on the process of structural development and the impact each structure has on individuals and groups. Three credits. Offered fall and winter semesters.

PA 615 Public Financial Administration. Practices and problems of public fiscal management with special attention to budgetary concepts and analytical techniques: the budget as an instrument of planning and control; organizing to ensure fiscal accountability; the public economy; financial decision-making; planning, programming, and budgeting systems; and allocation of scarce government resources in government and nonprofit agencies and programs. Prerequisite: 520 or equivalent. Three credits. Offered fall and winter semesters.

PA 616 Public Policy Analysis. An exploration of theories advanced to explain policy formation; examination of how needs are identified, communicated to policy-makers, evaluated and converted into formal policy, and implemented by administrative actions. Emphasis is on policy analysis in the public sector. Prerequisite: 520, 611, 614, 615, and at least nine credits in a concentration. Three credits. Offered fall semester.

PA 619 Public Management Seminar. Examines the structure and dynamics of organizations; problems of financing, staffing, and program implementation; administrative reform and reorganization; qualitative and quantitative methods for managerial decision-making; goal-directed processes and effective planning. Uses a case study approach emphasizing management problems. Prerequisite: Completion of other required courses. Three credits. Offered fall and winter semesters.

PA 620 Metropolitan Politics and Administration. Examines theories and practice of metropolitan politics and administration, including studies of intergovernmental relations, suburbia and the multi-centered metropolis, economic development, and managing metropolitan services. Structures of politics and power both formal and informal are investigated. Prerequisite: 520 or permission. Three credits. Offered fall semester.

PA 621 Administrative and Regulatory Law. An intensive study of administrative and regulatory law as it relates to the public sector. Requirements for, and limits on, the exercise

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of power by elected and appointed officials and liability of public managers are covered. Prerequisite: 520 or permission. Three credits. Offered fall semester.

PA 623 Labor Management in the Public Sector. Acquaints students with the origins and status of public sector labor relations and collective bargaining and their importance for effective management in rapidly changing environments. The growth of unionism in the public sector and the extent of state bargaining legislation makes the course particularly relevant for those in leadership positions. Three credits. Offered fall semester.

PA 630 Health Administration and Service. Overview of the current management, organization, and delivery of U.S. health care. Current management and organization theories are compared in relation to the health care system. Major system components are defined and studied. Included are discussions of staffing, dealing with internal and external constituencies, and identification of hospital types. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered every other year.

PA 631 U.S. Health Policy and Politics. Examines public policy-making in the health care sector since 1900. Emphasizes policy, the process of government regulation, and the character of health settings at the federal, state, and local levels; with attention to the constitutional foundations, legislative policies, and bureaucratic implementation features of the system in a political context. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered winter semester.

PA 632 Health Services Financial Management. Provides detailed understanding of the health services financial framework for decision making. Microcomputer applications that serve to facilitate operational and financial planning and analysis, third party reimbursement, regulation, and cost containment, rate settings, operating budgets, capital budgets, project budgeting, cash budgeting, and financial feasibility. Prerequisite: PA 611 and 615, and admission to the M.P.A. program or permit. Three credits. Offered fall semester.

PA 633 Health Economics. Examines the principles and application of economic analysis in the health industry. Provides insights offered by economic analysis of relevant data specific to health issues and problems such as failures of the market system, large gaps in access, cost containment, regulation, and extensive growth of private insurance and government programs. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered fall semester.

PA 634 Health Care Law and Ethics. Examines current and historical legal and ethical issues impacting health administration, including malpractice and other liability issues, licensing and regulation, professional ethics, contracts and property, insurance, corporate, taxation, antitrust, fraud and abuse, medical staff, confidentiality, health care access, peer review, ethics committees, legal and ethical aspects of patient care decision making and consent. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered winter semester.

PA 635 Hospital Organization and Management. Discussions of various types of hospitals. Study of their organization and management, including clinical, support and administrative functions, analysis of special operational problems, and administrative ethics. Requirements of the Joint Commission of Accreditation of Hospitals and other accrediting agencies are emphasized. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered on sufficient demand.

PA 637 Ambulatory Care Organization and Management. Study of the organizational and administrative aspects of ambulatory health services delivery. Focus on delivery strategies and organizational models and the operational issues of financial control, personnel, regulation, and evaluation. Includes identification and discussions of various types of outpatient services. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered on sufficient demand.

PA 638 Long-Term Care Organization and Management. Overview of organization and management of long-term care continuum, including nursing homes, hospices, psychiatric institutions, and noninstitutional alternatives—home health care and adult day care. Examines principles in the management of institutional and noninstitutional facilities for the chronically, terminally, or mentally ill and the disabled elderly. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered on sufficient demand.

PA 640 Marketing Health and Human Services. Explores and applies marketing and public relations concepts to a variety of health and human service functions. Included are the integration of marketing and public relations planning and programs in organizations. Focuses

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on social and ethical issues of promoting wellness and health care, and communication with the community and media. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered on sufficient demand.

PA 641 Economic Development. Describes and evaluates ways to coordinate the efforts of public agencies, private businesses, and nonprofit organizations to address planning, economic development, and employment issues more comprehensively. Included in this analysis are public and private programs basic to economic development; state and federal enabling legislation and regulations; local ordinance and public—private partnership alternatives. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered winter semester.

PA 642 Conflict Management. Provides an overview of theories of social conflict. Develops an understanding of the conceptual issues involving conflict and conflict management on many levels in diverse settings. Introduces specific dispute resolution skills such as negotiation and mediation. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered fall semester.

PA 643 Strategic Management and Planning. Planning as a decision-making process, methods for defining goals in public and private planning programs, role of planning in policy formulation, planning for human environment relationships. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered winter semester.

PA 644 GIS in the Public Service. Examines the management and application of Geographic Information Systems (GIS) in the public and nonprofit sectors. Lectures and readings emphasize the organizational, managerial, and ethical issues of interagency /intergovernmental GIS projects. Hands-on lab instruction provides training in desktop GIS software. Three credits. Offered fall semester.

PA 660 The Nonprofit Sector: History and Ethics. A comprehensive survey of the nonprofit sector, its history, philosophy, character, governance, and legal status. Emphasis on the role and tradition of philanthropy and voluntarism in America, and on the special fund-raising and resource development practices of the sector. Prerequisite: Admission to the M.P.A. program or permit. Three credits. Offered fall semester.

PA 661 Nonprofit Management: Practices. Explores the assumptions and practice of nonprofit organization management. Examines how these issues differ in different types of nonprofits. Topics include issues of public accountability, ethics, evaluating organizational effectiveness, personnel motivation, board and staff relationships, volunteers, and the meaning of service. Prerequisites: 520, 660, and admission to the M.P.A. program or permit. Three credits. Offered winter semester.

PA 662 Nonprofit Resource and Financial Management. After a brief review of nonprofit finance and accounting, course examines resource development and fundraising. Presents a philanthropic view that fundraising should be “mission driven and volunteer-centered.” Topics include direct mail fundraising, planned giving, grant seeking, and philosophies and ethics of fundraising. Prerequisites: 520, 660, and admission to the M.P.A. program or permit. Three credits. Offered winter semester.

PA 663 Nonprofit Organizations and Public Policy. An introduction to the public policy-making process as it applies to nonprofit organizations. Explores how nonprofit organizations both shape and are shaped by public policy. Focus is on the intersection of nonprofit and government actions and services. The creation, design, function, and finance of nonprofit organizations are addressed. Prerequisites: 520, 660, and admission to the M.P.A. program or permission. Three credits. Offered fall semester.

PA 664 Management of Religious Organizations. Examines religious institutions (including congregations) as nonprofit organizations and asks critical questions about the roles they play in the nonprofit sector and explores their unique management and leadership needs. Prerequisites: 520, 660, and admission to the M.P.A. program or permit. Three credits. Offered every other year.

PA 665 Nonprofit Boards, Trustees, and Governance. Examines perspectives on, models for, and functions of board governance and the way governance and management are intertwined in the operation and leadership of nonprofit organizations. Explores specific functions of trustees within their legal, ethical, and fiduciary obligations. Prerequisites: 520, 660, and admissions to the M.P.A. program or permit. Three credits. Offered every other year.

Russian Studies

PA 680 Special Topics Seminar. A seminar for the study of important topics not ordinarily covered in other courses. Course may be taken more than once when the topic is different. One to three credits. Offered in response to special departmental interests of faculty and students.

PA 690 Public Administration Internship I. Open to preservice students and those without public service employment experiences. Students will be given the opportunity to test and apply classroom knowledge to an actual professional position in a public agency or nonprofit organization. Prerequisites: Admission to M.P.A. program and completion of applicable course requirements. Permission of instructor. Three credits. Offered every semester. Offered on a credit/no credit basis.

PA 691 Public Administration Internship II. A second internship. May be taken concurrently with 690 when field experience warrants it, or may be taken after 690 by those taking an additional fieldwork experience. Prerequisites: 690. Permission of instructor. Three credits. Offered every semester. Offered on a credit/no credit basis.

PA 693 Research Project. Course requires preparation of an extensive research and writing assignment under faculty supervision. Prerequisite: Faculty approval of research proposal. Three credits or six credits. Offered on sufficient demand.

PA 695 Master's Thesis. Preparation of an extensive research and writing assignment under faculty supervision. Prerequisite: Faculty approval of research proposal. Requires thesis committee. Three or six credits.

PA 699 Directed Readings. A research or reading project, program proposal, or other approved activity that builds in the student's area of specialization. Prerequisite: Permission of advisor. Three credits. Offered every semester. Offered on a credit/no credit basis.

Russian Studies (RST)

Coordinator: Rydel.

A major in Russian studies leads to a B.A. degree. Because proficiency in the Russian language forms the most crucial component of the program, the major requires completion of third-year Russian (RUS 301, 302, or equivalent) with a grade of B or above and recommends a Russian language minor. Students need at least three years of Russian language study to be able to grasp basic grammar skills and begin to gain oral proficiency. Students may enhance their language skills by participating in approved summer intensive language programs both in Russia and the United States.

Employment opportunities for persons with training in Russian studies include jobs as translators, interpreters, journalists, officers in government agencies, the diplomatic corps, or business. Although language proficiency remains the most important requirement for a majority of jobs, many organizations insist that their employees know Russian literature, history, politics, economics, civilization, and culture as well. Because an undergraduate degree in Russian studies may not be sufficient for a number of jobs, the main purpose of the Russian studies program is to prepare students for graduate work in specific areas of Russian culture. Although our students traditionally continue their studies on the graduate level, usually on university fellowships and assistantships at major centers of Slavic scholarship, a number of them have pursued successful careers in international banking, government agencies in Washington, D.C., and the diplomatic service in Moscow. Some of our graduates have worked for the Voice of America, the Library of Congress, the State Department, and in social and religious agencies that help Russian immigrants adjust to life in the United States.

Russian Studies

Students interested in pursuing careers that entail working in Russia might consider combining the Russian studies program with a second major in communications, computer science, economics, international relations, or business with an emphasis on the areas of management, marketing, or finance.

Requirements for a Major

Majoring in Russian studies requires at least three years of Russian (Russian 101, 102, 201, 202, 301, 302) and a total of 36 hours, which must include the following courses: Russian 301, 302; History 389, 390, 391; Russian Studies 331, 332, 333; Russian Studies 495; and three courses to be chosen from among Economics 365; Geography 350; Political Science 282; or Russian Studies 225, 380, and 499. These three may not all be Russian Studies courses but must include at least one from among geography, political science, or economics. Students must also complete a senior thesis and pass a comprehensive oral examination, both of which are components of RST 495, the capstone course.

Requirements for a Minor

Requirements for a minor in Russian studies include two years of Russian (Russian 101, 102, 201, 202) and a total of 20 hours, which must include eight hours of Russian above 102 (201 and 202); six hours to be chosen from among History 389, 390, and 391; Russian Studies 331, 332, 333, or 380 (when the topic deals with Russian literature); Political Science 282; Geography 350; or Economics 365; and three hours of Russian Studies 380 or Russian Studies 225; and three hours of Russian Studies 399 (to be in the area of the student's major interest).

Courses of Instruction

RST 225 Introduction to Russian Culture. Concentrates on Russian culture as the Russian way of life and as the contribution Russia has made to civilization in general. Students should gain an understanding of Russia through an investigation of its past, its present, and its contrasts with the United States and the West. Fulfills World Perspectives requirement. Three credits. Offered winter semester of even-numbered years and summers.

RST 331 Russian Literature in Translation, 1800–1880. Survey of major writers of the period, including Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, and Tolstoy. A supplemental writing skills course. Prerequisite: Fulfillment of the composition requirement for SWS credit. Fulfills Philosophy and Literature foundation. Three credits. Offered fall semester of even-numbered years.

RST 332 Russian Literature in Translation, 1880–1932. Survey of Russian literature in its period of transition from the era of the tsars to the age of the commissars. A supplemental writing skills course. Prerequisite: Fulfillment of the composition requirement for SWS credit. Three credits. Offered winter semester of odd-numbered years.

RST 333 Russian Literature in Translation, 1932 to the Present. Survey of Russian literature in the Soviet period, including works of Socialist Realism, Bulgakov, Pasternak, Solzhenitsyn, and contemporary writers. A supplemental writing skills course. Prerequisite: Fulfillment of the composition requirement for SWS credit. Fulfills Philosophy and Literature foundation. Three credits. Offered fall semester of odd-numbered years.

RST 380 Special Topics in Russian Studies. Offered on sufficient demand.

RST 399 Independent Reading. One to four credits. Offered fall and winter semesters.

RST 495 Russia in Context (capstone). Interdisciplinary exploration of the so-called “accursed questions” that arise in any study of Russian cultural and intellectual history, literature, and the arts. Senior thesis and oral comprehensive examination required. Prerequisite: Senior standing with a major in Russian studies (others only with permission of coordinator). Three credits. Offered winter semester in odd-numbered years.

RST 499 Independent Study and Research. One to four credits. Offered fall and winter semesters.

Science

The Science (SCI) designation describes courses or workshops that are interdisciplinary in nature and relate to more than one science and/or mathematics discipline. They are primarily for teachers, particularly elementary and middle school teachers who teach science and mathematics as integrated and/or interdisciplinary subjects. These courses are offered by the faculty in Grand Valley's academic departments in conjunction with the Regional Math and Science Center.

The following is an interdisciplinary science and/or mathematics course. It may be approved for various degree requirements. Consult your advisor for further information and approval.

SCI 580 Special Topics in Science and Mathematics. Lecture and/or laboratory courses or workshops in interdisciplinary studies relating to more than one science and/or mathematics discipline.

Science: Group Major Program for Elementary Teacher Certification

Coordinator: Huizenga.

Elementary Certification

The Group Science major with an emphasis in biology, chemistry, or geology, is designed for students seeking certification to teach at the elementary school level. This program of study provides students with a breadth of exposure in all the sciences and permits concentration in one area. In order to be certified to teach, students must complete this major and the elementary teaching minor listed below.

Major Requirements

Refer to the departments (biology, chemistry, or geology) for departmental requirements.

Elementary Teaching Minor

1. ENG 308; MTH 221* and 222,* or 223.
2. ART 230 or MUS 350.
3. One course chosen from ENG 219, ENG 309, ENG 310, or any foreign language course.
4. PED 305 or CTH 366.
5. One course chosen from ECO 210, ECO 211, HST 105, HST 106, HST 107, HST 108, PLS 102, SOC 280, or GPY 235.

Students must earn at least a 2.8 GPA in the major and minor requirements listed above in order to teacher assist, student teach, and receive approval for teacher certification.

*Satisfies B.S. degree cognate requirements for the Group Science major.

Social Science

Social Science (SS)

The following are interdisciplinary social science courses. Some count for general education and/or for various social science majors. Consult with your advisor for further information.

SS 101 The Idea of a Social Science. Focuses on the development of modern social science from the seventeenth century to the present. Some of the major approaches to and conclusions about the study of human behavior will be critically evaluated. Controversies within the social sciences will also be addressed. May not be counted toward a psychology major. Three credits. Offered every semester.

SS 211 Peoples of the World. A course in cultural diversity that examines world cultures through an ethnographic survey using an anthropological perspective. Emphasis on small scale, non-Western societies, and village societies contained within nation-states. Fulfills World Perspectives requirement. Three credits. Offered fall and winter semesters.

SS 260 Human Aggression and Cooperation I. Investigates the psychological, social, political, historical, cultural, religious, and economic sources of human aggression and cooperation. Special focus on issues and contexts of aggression and cooperation, e.g., innate versus learning theories and the behavior of people in families, clans, communities, institutions, societies, and international organizations. Three credits. Offered on demand.

SS 261 Human Aggression and Cooperation II. Continuation of 260. Three credits. Offered on demand.

SS 270 Gender and Family in Third World Development. An examination of how gender and family affect and are affected by third world development, including a consideration of relevant theory, of practice and problems, and of efforts to improve development projects, e.g., in the areas of agriculture, the global economy, and U.S. foreign aid. Fulfills World Perspectives requirement. Three credits. Offered on demand.

SS 300 Research Methods in the Social Sciences. Examination of basic investigative methods in the social sciences. Focus on logic and theory of social research, including formulating and testing hypotheses, research design, sampling procedures, data collection techniques, and the ethics of conducting research. Prerequisite: STA 215. Three credits. Offered every semester.

SS 311 Native Peoples of North America. A multifaceted examination of North American Indians and a comparison of that culture with the American. Focus on origin, early history, and present disposition of American Indian populations. Fulfills U.S. Diversity requirement. Part of American Mosaic Theme. Three credits. Offered winter semester.

SS 313 The Africans. An intensive study of the three traditions (Native, Christian, and Islamic) that have shaped Africa's past and that will have an impact on its future. It is a fundamental assumption of this course that contemporary Africa can only be understood and appreciated in the total context of the triple heritage. Three credits. Offered winter semester.

SS 315 Comparative Religions. A cross-cultural study of contemporary religions. Examines the diversity of religious meanings through the lived experiences of cultures, traditions, and sects around the world. Exposes students to anthropological interpretations of religion through a range of methods, including ethnography. Themes include symbolism, ritual, death, shamanism, healing, magic, pilgrimage, and interfaith movements. Fulfills World Perspectives requirement. Part of Religion theme. Three credits. Offered fall and winter semesters.

SS 321 Crime and Punishment. Examines primary theoretical orientations toward crime and punishment that have been evident throughout history. Also addresses how different societies at different times have attempted to define crime and how those definitions have created social reactions and legal punishments. Three credits. Offered each semester.

SS 322 Militarism. Examines militarism, its structures, and its functions across cultures. Includes a case study of Germany, 1648–1945, and pays special attention to nationalism, imperialism, industrialization, and social control. Fulfills World Perspectives requirement. Part of War and Peace theme. Three credits. Offered every year.

SS 323 The Family. An examination of the basic concepts of culture and their application, first to the American family and then to the family in other cultures. Fulfills U.S. Diversity theme. Three credits. Offered every semester.

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SS 324 Urbanization. An examination of the process of urbanization and the impact it has on various cultures. Considers the dynamic growth of urbanization in third world countries and the significant increase in global urbanization, emphasizing the evolution of cities over time, space, and vastly different social, political, and cultural environments. Fulfills World Perspectives requirement. Part of Cities Theme. Three credits. Offered winter semester.

SS 381 Death and Dying. Considers the way in which ideas and values are socially constructed and contextually grounded. Specific focus on the historical, socioeconomic, psychological, and political construction of death and dying in the United States. A comparative aspect is also provided. Part of the Death and Dying Theme. Prerequisite: Junior standing. Three credits. Offered fall semester.

SS 382 Love, Sex, and Gender. Considers the way in which ideas and values are socially constructed and contextually grounded. Focus on the historical, socioeconomic, psychological, and political construction of love, sex, and gender in the United States. A comparative aspect is also provided. Part of Gender, Society, and Culture theme. Prerequisite: Junior standing. Three credits. Offered fall semester.

SS 383 Education and American Society. Consideration of the way in which ideas and values are socially constructed and contextually grounded. Specific focus on the historical, socioeconomic, and political construction of education in the United States. Prerequisite: Junior standing. Three credits. Offered every year.

SS 384 Social Inequalities. Consideration of the way in which ideas and values are socially constructed and contextually grounded. Specific focus on the historical, socioeconomic, and political construction of inequality in the United States. A comparative aspect is also provided. Part of Perspectives from the Outside theme. Prerequisite: Junior standing. Three credits. Offered fall and winter semesters.

SS 390 Leadership Dynamics. Examines leadership issues, concepts, and situations that are evident in various community and organizational contexts. Prerequisites: Sophomore standing. Three credits. Offered once a year.

Social Studies (SST)

Coordinator: Smither.

The major in Social Studies is designed for students seeking teacher certification in secondary or middle school social studies or in elementary education. The major includes a minimum of 42 credit hours in economics, geography, history, and political science. Students seeking teacher certification also complete an appropriate minor and the professional program offered by the School of Education. The Social Studies major meets State of Michigan content standards for teacher preparation in Social Studies, which require at least six credit hours and two courses in each of the four disciplines and at least 18 credits and six courses in one of the four areas.

All Social Studies majors complete the core courses and select an area of concentration from the component disciplines. Students must complete a substantial portion of the major, including SST 310, before admission to the School of Education. The School of Education requires that candidates for admission present an overall GPA of 2.8 as well as a GPA of 2.8 in the major and minor. Students may earn the B.A. or the B.S. degree. Students seeking the B.A. must demonstrate third-semester proficiency in a foreign language; students seeking the B.S. complete STA 215, SS 300, and ED 205. Students who decide not to seek teacher certification may complete the Social Studies major and receive a bachelor's degree without completing the professional program in education; such students may graduate with a GPA lower than 2.8 provided they meet the University's minimum requirements.

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Transfer and post-graduate students seeking a teachable major in social studies should consult Janet Robinson, Arts and Humanities Teacher Certification Advisor, for an evaluation of their previous work. Post-baccalaureate students must present a record substantially equivalent to that required of GVSU undergraduates; such students whose previous academic work is not equivalent to the GVSU program or whose previous work does not include at least six credits and two courses in each of the four disciplines and at least 18 credits and six courses in one of the disciplines must take additional courses to meet those requirements. Post-baccalaureate students seeking admission to the School of Education's undergraduate professional program must also take SST 310, Strategies for Social Studies Teachers, before admission to the School of Education.

CORE:

HST 203 World History to 1500
HST 204 World History since 1500
HST 205 American History to 1877
HST 206 American History since 1877
GPY 100 Physical Geography
GPY 235 World Regional Geography
PLS 206 American Constitutional Foundations
PLS 211 International Relations
ECO 210 Microeconomics
ECO 211 Macroeconomics
SST 310 Strategies for Social Studies Teachers
SST 495 Education in Plural Societies (capstone)

Concentration:

Students take a total of six courses (at least 18 credits) in the area of concentration. Students may select any of the four disciplines as their area of concentration; core courses may be included among the six required for the concentration. Requirements for each concentration follow:

Geography: Core plus four Geography courses numbered between GPY 345 and 370.

History: Core plus two History courses numbered between HST 301 and 391; at least one course must be in European or non-Western history.

Political Science: Core plus four courses, including PLS 203 or 304 or 305; PLS 221 or 327 and two additional PLS courses; at least two of the four courses must be at the 300 level.

Economics: (for secondary candidates only): Core plus four Economics courses.

Courses of Instruction:

SST 310 Strategies for Social Studies Teachers. Introduces students to numerous strategies, methods, and issues that relate to social studies disciplines. Students will study current frameworks and design lessons to achieve appropriate objectives. Required of students seeking certification in social studies. Prerequisite: Junior standing or consent of the instructor. Three credits. Offered every term.

SST 495 Education in Plural Societies (capstone). Examines the models used to interpret and explain the system of public education in the United States and other countries. Explores questions related to the role of public education as a transmitter of social and cultural values. Seminar format. Prerequisite: Senior standing in the major; one semester fieldwork in school. Three credits. Offered every term.

The School of Social Work (SW)

Dean: Mulder. Professors: Chung, Haynes, McFadden, Mulder, Schott, Singh, Swanson; Associate Professors: Golensky, Guevara; Assistant Professors: Bolea, Grant, Johnson, Lampkin, Smith; Visiting Professors: Borst, Gabrielse, Noordyk; Directors: Lehker, Owens.

The mission of the School of Social Work is to prepare students at the bachelor and master levels for professional social work practice and leadership roles in the development and implementation of social welfare policies, programs, and services.

The School of Social Work B.S.W. and M.S.W. programs do not award academic credit for students' life experiences or previous work experiences.

The Bachelor of Social Work Program

Director: Guevara.

The Bachelor of Social Work Program is accredited by the Council on Social Work Education.

Goals

The overriding goal of the Bachelor of Social Work Program is to prepare students for the beginning level of social work practice. Specific goals are compatible with, and flow from, the mission, philosophy, and objectives of Grand Valley State University and the School of Social Work. They are as follows:

1. To be prepared for entry into the profession as generalist social work practitioners.
2. To demonstrate basic understanding of the common human needs of people, especially populations at risk, and the communities in which they live and/or work.
3. To identify social problems affecting persons and their environments and how they influence individuals, families, small groups, organizations, and communities.
4. To demonstrate increasing progress in the development of self-assessment, and the professional self, as well as in competent practice sensitive to cultural and human diversity.
5. To be committed to social change in pursuit of economic and social justice.
6. To use their social work knowledge, skills, and values to enhance the quality and delivery of social services to the individual, small group, family, organization, and community.
7. To learn to utilize effectively state of the art technology to enhance their own knowledge and on behalf of the client population.
8. To be ready to enter the second professional level of social work through graduate education.

Bachelor of Social Work graduates have been employed in a wide range of social service agencies serving all kinds of people. Life consultation centers, probation and parole, mental health programs, hospital social services, children's centers, senior citizen programs, sheltered workshops, juvenile courts, protective services,

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programs for the developmentally disabled, and alcoholism treatment programs are just some of the areas in which our graduates are employed.

Admission and Academic Requirements

All social work majors must formally apply to the School of Social Work during the first semester of the junior year and when they are enrolled in SW 316, 317, 319, and 340. Application procedures are explicated in the first class session and materials must be completed and submitted by September 30.

To be eligible for consideration of candidacy, students must have

1. Completed all freshman and sophomore course requirements in the B.S.W. curriculum.
2. A minimum cumulative GPA of 2.0 (4.0 scale).
3. Earned a minimum grade of B- (2.7) and not have repeated the following courses more than once: SW 150, PLS 102, PSY 303, PSY/SOC 360, SOC 382, 280 or 384, and SS 384.
4. Earned a minimum grade of B- (2.7) in the International program course.
5. Complete the application and process for candidacy for the B.S.W. degree.

Completed candidacy applications are reviewed by the School of Social Work faculty. Accepted applicants are awarded candidacy for the B.S.W. degree and are eligible for enrollment in specified third- and fourth-year professional social work courses. Applicants who are not accepted are advised and referred to pursue opportunities in other areas.

Advising

Students interested in social work as a major should complete the "Declaration of Major" form and seek advisement from the coordinator of the B.S.W. program. All social work majors should maintain regular contact with their advisors to ensure proper course enrollment and steady progress toward earning their degree.

The B.S.W. degree requires successful completion of 120 semester hours of college credits. The program is built on a liberal arts foundation plus 34 hours of cognate and international courses. These required courses augment, compliment, and supplement the 44 credit hours of professional social work courses, which include emphases on social work values and ethics, social and economic justice, diversity, and populations at risk in the Human Behavior and Social Environment, Social Welfare Policy and Services, Generalist Social Work Practice, Social Work Research, and Field Practicum Sequences.

Required courses in the major are SW 150, 316, 317, 318, 319, 340, 341, 348, 430, 490, 491, 492, 493, 495, and six credits from the list of Social Work Electives. The student must earn the minimum B-grade in each Social Work course and not have repeated a course more than once. Also required are three credits from the list of International Program Courses. Cognate requirements include: BIO 103, ECO 210 or 211 or SS 384, PLS 102, PSY 101 and 303, PSY/SOC 360, SOC 201, 280 or 384, 382, and STA 215.

SW 430 is designed specifically for students who are candidates for the B.S.W. degree and is taught by School of Social Work faculty. This course examines basic methods employed primarily in social work research.

During the senior year, the student must be full-time.

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In order to ensure the fulfillment of all Grand Valley State University B.S.W. degree requirements, students are urged to follow the schedule of courses indicated in the following four-year curriculum:

Sample Curriculum

First Year

First Semester—Fall

ENG 150 English Composition: Exposition and Argument	4
MTH 110 Algebra	4
Physical Science (non lab)	3
SW 150 Human Needs in Complex Societies	3
World Perspectives Designation	3
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	17 credits

Second Semester—Winter

Art	3
BIO 103 Biology of People—Life Sciences (lab)	4
Historical Perspectives	3
PSY 101 Introduction to Psychology—Social Sciences	3
SOC 201 Introduction to Sociology—Social Sciences	3
	<hr/>
	16 credits

Second Year

Third Semester—Fall

Philosophy and Literature	3
PLS 102 American Government—Social Sciences	3
PSY 303 Abnormal Psychology	3
PSY/SOC 360 Social Psychology	3
SOC 280 Social Problems—U.S. Diversity Designation	3
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	15 credits

Fourth Semester—Winter

ECO 210 or ECO 211 Macro- or Microeconomics or SS 384 Social Inequalities	3
Free Elective	
International Relations Program course (see Recommended List)	3
SOC 382 Minority and Ethnic Relations	3
STA 215 Statistics—Mathematical Designations	3
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	15 credits

Third Year

Fifth Semester—Fall

ENG 305 Writing in the Disciplines	3
SW 316 Interviewing in Social Work	3
SW 317 Generalist Practice I	3
SW 319 Social Welfare Policy and Services	3
SW 340 Human Behavior and Social Environment I	3
	<hr/>
	15 credits

Students must have candidacy for B.S.W. degree to take the social work courses listed below.

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Sixth Semester—Winter

Free electives (see Recommended List)	4
SW 318 Generalist Practice II	3
SW 341 Human Behavior and the Social Environment II	3
SW 348 Field Practicum Laboratory	2
General education theme course-1	3
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	15 credits

Fourth Year

Seventh Semester—Fall

SW 430 Social Work Research	4
SW 490 Field Practicum in Social Work I	3
SW 492 Field Practicum in Social Work Seminar I	1
Social Work elective (see list)	3
General education theme course-2	3
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	14 credits

Eighth Semester—Winter

SW 491 Field Practicum in Social Work II	3
SW 493 Field Practicum in Social Work Seminar II	1
SW 495 Senior Seminar in Social Work (Capstone)	3
Social Work elective (see list)	3
General education theme course-3	3
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	13 credits

Social Work Electives (six credits required)

- SW 320 Children and Child Welfare Services
- SW 322 Health Care and Social Services
- SW 354 Social Work International Service (international relations course is waived for students who take this course)
- SW 439 The Family and Social Work Practice
- SW 450 Law and Social Work
- SW 453 Case Management
- SW 460 Special Topics in Social Work
- SW 461 Multicultural Issues in Social Work
- SW 499 Independent Study in Social work (one to four credits)

International Relations Program (three credits required)

- GPY 235 World Regional Geography
- HST 210 Empire, Culture, and Conflict
- HST 331 Modern Latin America
- HST 337 The Islamic World
- HST 338 Modern Middle East
- HST 385 Modern Europe
- HST 390 Soviet History
- SW 354 Social Work: International Service (one time only)
- SS 313 African Studies
- PLS 211 Introduction to International Relations
- PLS 312 American Foreign Policy
- PLS 313 International Organization
- PLS 327 Politics of Developing Countries

Recommended Free Electives

Note: Students are not restricted to this list.

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ANT 204 Introduction to Cultural Anthropology
PA 270 Public Administration
PA 439 Community Analysis
PHI 102 Ethics
PHI 325 Ethics in the Professions
PSY 310 Behavior Modification
PSY 315 The Psychology of Sex Differences
PSY 316 The Psychology of Human Intimacy and Sexuality
PSY 317 Human Relations
SS 381 Death and Dying
SS 382 Love, Sex, and Gender
SOC 358 Bureaucracy
SOC 383 Sociology of Women
SOC 390 Advanced Seminar in Social Issues
WS 201 Introduction to Women's Studies
WS 204 Feminist View of Culture
WS 300 Gender Perspectives on Values
WS 380 Special Topics in Women's Studies

Field Practicum

Field practicum is a significant and integral part of the student's total professional training. Practicum instruction is undertaken in sequence during the senior year. At the end of the junior year, students are required to complete and submit to the Office of Field Education an Application for Field Practicum in Social Work. The minimum requirements for entering practicum are

1. An overall 2.0 GPA.
2. A minimum B- grade in International Relations and specified cognate courses.
3. A minimum B- grade in each social work course.
4. Maintenance of official "candidacy status."
5. Completion of all first-, second-, and third-year required courses.
6. A schedule that allows two full days of fieldwork during the fall and winter semesters.

The field practicum requirement consists of a minimum of 225 clock hours per semester for two consecutive semesters in a human service agency selected to meet the student's educational and professional needs and interests. These hours are accumulated at the rate of 15 hours per week for 15 weeks. All practicum students will receive and are expected to become familiar with the *Manual for Field Practicum: Policies and Procedures*. Elective social work practice courses and field seminars are taken in conjunction with a practicum. Students entering a practicum must arrange or provide their own transportation.

Undergraduate Courses of Instruction

Note: SW 150 is a prerequisite for all social work courses.

SW 150 Human Needs in Complex Societies. Common human needs are examined and a number of historical responses to these needs are placed in a societal context. Cultural forces which affect resource allocation patterns and service delivery systems are analyzed. Fulfills Social Sciences Foundation. Three credits. Offered fall and winter semesters.

SW 316 Interviewing in Social Work. Principles and techniques associated with the successful interview. Consideration is given to understanding the interviewee, oneself as the interviewer, and the implications of sociocultural backgrounds for the interview and its participants. Recording and reporting skills specifically related to social work practice are

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taught and case materials from different fields of practice are employed. Prerequisite: SOC 382. Three credits. Offered fall semester.

SW 317 Generalist Practice I. Provides students with knowledge, values, and skills for multi-level generalist practice. Prepares students for direct and indirect service delivery involving intervention model; micro, mezzo, and macro skills, planning; risk management and crisis intervention; termination, evaluation, and follow-up. Three hours per week of volunteer service in an approved social agency required. Prerequisites: 150 and concurrent with 316, 319, 340. Three credits. Offered fall semester.

SW 318 General Practice II. Students are provided with additional aspects of generalist practice, such as understanding and working with families; making ethical decisions; developing cultural sensitivity; recordkeeping; and varying generalist practice roles required in micro, mezzo, and macro practice settings. Three hours per week of volunteer service in an approved social agency required. Prerequisites: Candidacy and 316, 317, 319, and 340. Concurrent second semester social work curriculum. Three credits. Offered winter semester.

SW 319 Social Welfare Policy and Services. Discussion of social welfare policy and services that includes economic, tradition, political, and other sociocultural influences. Introduces students to basic policy and services analysis, examines specific target populations, and demonstrates the translation of policy into beginning-level social work practice. Prerequisite: PLS 102 and ECO 210 or 211 or SS 384. Three credits. Offered fall semester.

SW 320 Children and Child Welfare Services. Synthesizes, deepens, and integrates generalist social work practice content with a focus on professional foundation knowledge, values, and skills as these apply to services for children. Reviews policies and programs that affect children and families and considers related multicultural issues. Prerequisites: 317, 319, 340. Three credits. Offered fall semester.

SW 322 Health Care and Social Services. Provides an overview of the health care and social services delivery systems in America. Examines values, and multicultural, political, and economic issues that affect the development and implementation of health care policy and practices. The effects of illness, environment, nutrition, and the roles of the generalist social work practitioner are included. Prerequisite: 317, 319, 340. Three credits. Offered every other winter semester.

SW 340 Human Behavior and the Social Environment I. Provides basic knowledge about human behavior from birth through young adulthood. Includes environmental factors, social systems theory, various psychological theories, human and cultural diversity, social problems and their effect on individuals, families, groups, organizations, and communities. Prerequisites: BIO 103, SOC 382, PSY/SOC 360, PSY 303, SOC 280 or 384, and concurrent with 316, 317, 319. Three credits. Offered fall semester.

SW 341 Human Behavior and the Social Environment II. Provides basic knowledge about human behavior from middle adulthood through the elderly. Includes environmental factors, social systems theory, various psychological theories, human and cultural diversity, social problems and their effect on individuals, families, groups, organizations, and communities. Prerequisite: Candidacy for B.S.W. degree, SW 340, and concurrent with 318, 348. Three credits. Offered winter semester.

SW 348 Field Practicum Laboratory. Focus on social work knowledge, values, and skills required of generalist practitioners in social welfare agencies. Discussions emphasize contents of Field Practicum Manual; its contract through evaluation. Course must be completed with grade of B- or better within one year of taking SW 490/492 or be repeated. Prerequisite: Concurrent with 318. Two credits. Offered winter semester.

SW 354 Social Work: International Service. Focus is international and uses a service learning approach. Explores the theme of social welfare development. Includes a two-to-three-week experiential learning component in an international location. Demonstrates the interconnectedness between social work, social justice, and civic/global responsibility. Prerequisite: Candidacy or permission of instructor. Three and four credits. Offered spring/summer semester.

SW 380 Special Topics in Social Work. The study of issues and concerns important to the social work community not ordinarily covered in other courses. Offered in response to the special interests of faculty and student majors. Topics to be announced. Prerequisite: 319, 341, and 351. One to four credits. Offered every other fall semester.

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SW 430 Social Work Research. Examines basic investigative methods in social work research, including logic and theory; hypotheses, sampling, single systems designs, and data collection. Stress social work ethics in research; evaluation of programs, client systems, and one's own generalist practice. Students use computers and develop a research proposal to be implemented in SW 491/493. Prerequisites: STA 215 and concurrent with SW 490/492. Four credits. Offered fall semester.

SW 439 The Family and Social Work Practice. An elective course that deepens, broadens, and integrates professional foundation knowledge, values, and skills as these apply to generalist practice with families. Examines practice processes related to assessment, intervention, and evaluation, including presenting problems of race, gender, and other multicultural variables related to programs and services for families in America. Prerequisite: 317. Three credits. Offered once a year.

SW 450 Law and Social Work. Familiarizes students with the complex institution of law in American society and its relation to some of the problems, policies, programs, and populations of special concern to social work. Selective survey of court decisions, social legislation, and administrative regulations important to social welfare policy and social work are included. Prerequisite: 318, 319, and 341. Three credits. Offered every other fall semester.

SW 453 Case Management. Defines the concept and discusses the development and role of case management in social service delivery systems. Explores case management as a mode of intervention in mental health and other fields of practice as well as the role of the generalist social work practitioner. Prerequisite: 317. Three credits. Offered fall semester.

SW 461 Multicultural Issues in Social Work Practice. Increases knowledge and skills needed for generalist social work practice in a multicultural, multiracial society. Emphasis is on the commonalities and diversities among groups in American society and the nature of transactions between and among these groups. Prerequisite: Concurrent with field. Three credits. Offered winter semester.

SW 470 Contemporary Social Policy Issues. The development of a conceptual framework for understanding and analyzing social policy issues. Contemporary problems such as poverty, unemployment, low-income, homelessness, inadequate health care, malnutrition, and changes in family structure are covered. Strategies for policy change examined. Prerequisite: 319. Senior standing. Three credits. Offered every other fall semester.

SW 490 First Senior Level Field Practicum. Involves 225 clock hours per semester. Offers opportunities to apply theories, techniques, and concepts through observation and participation in supervised activities of assigned social agencies as generalist practitioners. Prerequisites: Candidacy, 348, and concurrent with 492 and social work research. Three credits. Offered on a credit/no credit basis. Offered fall semester.

SW 491 Second Senior Level Field Practicum. Involves 225 clock hours per semester. Offers opportunities to apply theories, techniques and concepts through observation and participation in supervised activities of assigned social agencies as generalist practitioners. Prerequisites: 490, 492, social work research, and taken concurrently with 493 and 495. Three credits. Offered on a credit/no credit basis. Offered winter semester.

SW 492 Field Practicum in Social Work Seminar I. Assists students in the understanding and achievement of learning objectives in their field practicum experiences. Requires regular reporting of field activities including assessment and evaluation of client populations as well as the social agency itself. Prerequisite: Taken concurrently with 490. One credit. Credit/no credit. Offered fall semester.

SW 493 Field Practicum in Social Work Seminar II. Assists students in the understanding and achievement of learning objectives in their field practicum experiences. Requires regular reporting of field activities including assessment and evaluations of client populations as well as the social agency itself. Prerequisite: Taken concurrently with 491. One credit. Credit/no credit. Offered winter semester.

SW 495 Senior Seminar in Social Work (Capstone). Integration of social work content and cognate subject content into a holistic framework with a focus on beginning-level generalist social work practice. Emphasis on integrating theory and practice. Prerequisites: 490; taken concurrently with 491 and 493. Three credits. Offered winter semester.

SW 499 Independent Study in Social Work. Student and/or faculty initiated special projects that explore some aspect of social work theory or practice. A maximum of four credits in independent study may be taken during undergraduate social work education. Prerequisites: Senior standing and advanced permission of instructor. One to four credits.

Social Work

The Master of Social Work Program

Director: Schott.

The Master of Social Work program is accredited by the Council on Social Work Education.

Mission and Philosophy

The mission of the Master of Social Work program is to prepare students for advanced-level professional practice and leadership roles in the development and implementation of social welfare policies, programs, and services.

The program is built on a humanistic and democratic philosophy that promotes the values of social justice and responsibility, respect for human rights, dignity, and diversity, and a commitment to an egalitarian and humane social order.

The curriculum is predicated upon the assumption that social workers should operate from a common base of knowledge, values, skills, and philosophy. These components are transmitted through a solid core of foundation and advanced-level courses.

The first year introduces students to the characteristics of social work practice (values, ethics, processes, etc.). The second year develops students' competence in multi-level assessment, intervention, and evaluation modalities with diverse client systems.

The framework for the M.S.W. curriculum is an Advanced Generalist perspective. This perspective, anchored in an "ecological systems" model of practice, is based on the premise that human problems derive from a complex interplay of psychological, social, economic, political, and physical forces. This framework recognizes the reciprocal effects of environmental conditions on the human condition. The curriculum is therefore designed to produce professional practitioners who are knowledgeable about problems and needs at various systemic levels and who are capable of using a range of interventive theories, roles, methods, and skills for competent clinical and macro-social work practice.

Program Goals

The school's Advanced Generalist curriculum is designed to foster an integration of theory and practice and to inculcate in students practice-relevant knowledge and skills. This is derived from carefully devised and systematically structured courses in Methods of Social Work Practice, Human Behavior and the Social Environment, Social Welfare Policy and Services, Social Research and Field Education. The School of Social Work seeks to produce knowledgeable and competent professionals who can

1. Attain a level of analytical, interactional, and technical competency essential for qualitative, effective, and self-directed professional practice and meaningful careers in human service.
2. Contribute to the development and improvement of the profession through participation in research, education, practice, and professional organizations.
3. Meet the needs, responsibilities, and professional (personnel) requirements of human and social services agencies and programs in West Michigan, around the State of Michigan, and across the country.
4. Pursue post-graduate training in a doctoral program in social work or other related fields.

Admission and Academic Requirements

For general requirements, see the Admission section of the catalog.

Degree Seeking

Students who meet the following university requirements and the additional requirements of their chosen program are granted degree-seeking status:

1. A baccalaureate degree from an accredited institution of higher education.
2. Submission of all required admission materials.

In addition to the requirements for admission to the university set forth above, admission to the School of Social Work is based on an assessment of prior academic preparation, personal maturity, conceptual abilities, work experience, and personal commitment to the profession of social work, its values, and its ethics. All applicants for admission to the Master of Social Work Program must:

1. Submit a complete application for admission to the School of Social Work.
2. Enclose a non-refundable \$20.00 application fee.
3. Have official transcripts sent from each undergraduate and graduate institution attended.
4. Have a baccalaureate degree from an accredited college or university.
5. Have a cumulative undergraduate GPA of 3.0 on a 4.0 scale (calculated on the last two years of study). A limited number of applicants may be admitted with less than the minimum GPA requirement. This exception may be granted to students who have been out of school for five or more years and/or those with outstanding work experience in human services.
6. Have a broad liberal arts background in subject areas such as the life, physical, and social sciences; values and ideas, art and humanities; history; foreign cultures and multicultural issues; and logic and mathematics.
7. Have the minimum 18 hours in social and behavioral sciences with course-work in psychology, social work, and/or sociology.
8. Applicants with deficiencies in liberal arts and/or behavioral and social sciences may be required to complete compensatory undergraduate work prior to reconsideration for admission.
9. Have three letters of reference submitted by individuals who can directly and/or objectively assess the applicant's qualifications for successful graduate study and professional social work practice.
10. Prepare and submit a personal statement of career goals and background experiences, including an explanation of how the M.S.W. program at Grand Valley will help them achieve their educational and professional objectives.

Completed applications are reviewed by the Admissions Committee in the order received. However, to ensure full consideration for fall admission, applications should be received before April 1. Early application is strongly encouraged. When all materials have been received, the applicant's file is reviewed by the school's Admissions Committee, which makes a disposition of each completed application on a first-come, first-served basis. The committee reserves the right to require additional information it deems appropriate and necessary. The majority of students admitted to the School of Social Work will begin their studies in the fall semester. Late applicants will be admitted on the basis of remaining vacancies. Limited part-time spaces are available for January enrollment.

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Students who do not meet all the requirements but whose experience, achievement, etc., may warrant an exception will be invited for a personal interview to discuss admission and further explore the program. Admissions decisions are promptly communicated in writing to each applicant. Because of limited class size the Admissions Committee is not able to accept all qualified applicants.

Field Education

Director: Lehker.

The fieldwork component of the M.S.W. program is an integral part of the student's overall educational experience. It provides opportunities for the development, integration, and application of professional knowledge, skills, values, and attitudes. Placements are made in a wide variety of human service settings in the public and private sectors.

Fifteen of the 60 credit hours required for the M.S.W. degree are granted for field education. The school's practicum program is organized on the basis of "concurrent model" of field education. Under this model, admitted students will participate in a three-credit field laboratory course followed by three academic semesters of supervised, agency-based field instruction, for a minimum of 21 hours per week. Field instruction is done concurrently with classroom courses. Placements are made in affiliated agencies selected on the basis of their commitment to social work education and their willingness to provide a professional learning environment, meaningful experiences, and supportive resources consistent with the general objectives of the school and the particular needs and interests of individual students.

In order to be assigned a field placement and remain in the practicum setting, a student must

1. Have completed all prerequisites and other requirements for field placement.
2. Possess and maintain the minimum 3.0 GPA.
3. Have no more than one incomplete grade.

Students who would like a school practicum placement must take SW 648 Field Education during the fall semester and SW 650 Field Education I/SW 651 Field Education Seminar I during the winter semester.

Advanced Standing: Full Time

The School of Social Work recognizes superior academic performance by students who have graduated from an accredited undergraduate social work or social welfare department or program. A minimum GPA of 3.5 in social work courses from a Council on Social Work Education (CSWE) accredited baccalaureate program may qualify prospective students for advanced standing. Advanced standing students are exempted from 18 hours of first-year core or foundation courses and may therefore accelerate their graduate study by completing the remaining 42 hours of degree requirements in one calendar year. The courses exempted are SW 600, 603, 610, 620, 648, and one advanced practice course. All Advanced Standing students must take a 100-item diagnostic proficiency examination in research methods. A score of 75 or higher will qualify the student for exemption from SW 690 Research Methods I. This reduces to 39 hours the degree requirements remaining for completion. Students admitted to the advanced standing program must begin their studies during the summer session and continue full time during the subsequent fall and winter semesters. All advanced standing students will

begin their field practicum in the summer semester. (The school may, in certain instances, prescribe additional coursework in areas of particular weakness or need.) Interviews before admission will be arranged for all advanced standing applicants. Course requirements in the advanced standing program are set forth below.

Advanced Standing: Part Time

The School of Social Work recognizes superior academic performance by students who have graduated from an accredited undergraduate social work or social welfare department or program. A minimum GPA of 3.5 in social work courses from a Council on Social Work Education (CSWE) accredited baccalaureate program may qualify prospective students for advanced standing. Advanced standing students are exempted from 18 hours of first-year core or foundation courses and may therefore accelerate their graduate study by completing the remaining 42 hours of degree requirements in two calendar years. The courses exempted are SW 600, 603, 610, 620, 648, and one advanced practice course. All Advanced Standing students must take a 100-item diagnostic proficiency examination in research methods. A score of 75 or higher will qualify the student for exemption from SW 690 Research Methods I. This reduces to 39 hours the degree requirements remaining for completion. Students admitted to the advanced standing part-time program must begin their studies during the summer session and continue part time during the subsequent two years. (The school may, in certain instances, prescribe additional coursework in areas of particular weakness or need.) Interviews before admission will be arranged for all advanced standing applicants. Course requirements in the advanced standing program are set forth below.

Non-degree Seeking

Students who are not seeking a graduate degree or who have not completed all of the admissions requirements of their chosen program may be granted non-degree-seeking status. A maximum of six semester credits earned at Grand Valley State University as a non-degree-seeking student may be considered for transfer to degree-seeking status. Enrollment as a non-degree-seeking student does *not* guarantee formal admission to the M.S.W. program. Non-degree status students are limited to SW 600, 610, and 620.

Changing Status from Non-degree to Degree Seeking

Students who seek a change in status must

1. Submit all required admission materials.
2. Submit a degree-seeking application form to the Admissions Office.

Programs of Study

The School of Social Work offers a 60-credit-hour Master of Social Work (M.S.W.) degree program on both a full-time and part-time basis. Students pursuing part-time study may choose either a three or four academic year model. All requirements for graduation must be completed within four years after coursework has started. The distribution of course requirements for both programs of study are set forth below.

M.S.W. Degree Requirements

The M.S.W. degree consists of a minimum of 60 credit hours. The program core includes 18 credit hours, as follows:

Social Work

SW 600 Cultural Competency for Social Work
SW 603 Integrated Methods
SW 610 Social Welfare Policy and Services I
SW 620 Human Behavior and the Social Environment
SW 648 Field Education Laboratory
SW 690 Social Research I

Students must also take the following courses in human behavior, policy, and research (12 hours):

SW 622 Psychopathology and Social Deviance
SW 612 or 614 or 616 Social Policy: Families and Children, Mental Health or Law, Ethics and Social Welfare
SW 693 Social Research II
SW 640 Seminar in Advanced Generalist Practice

Students must also take 12 hours of field practicum:

SW 650 Field Education I
SW 651 Field Education Seminar I
SW 652 Field Education II
SW 653 Field Education Seminar II
SW 654 Field Education III
SW 655 Field Education Seminar III

Students must take 18 hours of advanced practice classes. Practice courses are divided into the following four categories:

Group A (micro-core)

SW 670 Social Work Practice: Individuals
SW 672 Social Work Practice: Groups
SW 674 Social Work Practice: Families/Children

Group B (micro-elective)

SW 662 Substance Abuse and Social Work Practice
SW 673 Social Work Practice with Children and Adolescents
SW 675 Child Welfare and Family Services
SW 680 Special Topics in Social Work

Group C (macro-core)

SW 676 Community and Social Planning
SW 677 Principles of Supervision
SW 678 Human Service Administration

Group D (macro-electives)

SW 630 Social Work: Global Service Learning
SW 660 Grant Writing and Resource Development
SW 694 Master's Thesis
SW 695 Master's Thesis
Elective from other departments

Students must take 18 hours, as follows:

One course from Group A.
One course from Group A or B.
One course from Group C.
One course from Group C or D.
One course from Group A, B, C, D.
One course from Group A, B, C, D.

Transfer Credit

The School of Social Work has established procedures for determining the award of credit for previous academic coursework and to address the issue of redundancy. It is noted that

1. The maximum of 30 semester hours of transfer credit for graduate courses completed with a grade of B or better at another CSWE-accredited M.S.W. program
2. The foundation course for a student may be waived when the student demonstrates proficiency through examination in the specific foundation course. In this instance, the course is waived but the number of credits must be satisfied with other coursework.
3. Transfer credits are not granted for courses completed more than five years before enrollment in the GVSU M.S.W. program or for courses taken toward the completion of another degree.

School Social Work Certification

The School of Social Work at GVSU is authorized by the State Board of Education in Michigan to provide training and make recommendations concerning practitioner certification for school social work as provided in the *Administrative Rules for School Social Work* (Rule 340.1013) of the Michigan Department of Education. All students seeking certification for school social work are required to take SW 664, Social Work Practice in Schools, in addition to the 60 credit hours required for the M.S.W. degree. Students must consult with the school social work advisor.

Graduate Courses of Instruction

SW 600 Cultural Competency for Social Work. Examines cross-cultural practices and values, with emphasis on the commonalities and differences among individuals, groups, organizations, and communities in American society. Critical analyses of people based on age, ethnicity, race, gender, religion, spirituality, sexual orientation, socioeconomic status, veteran, and/or disability status. Three credits. Offered fall and winter semesters.

SW 603 Integrated Methods. Prerequisite for advanced practice course enrollment. Examines theories, goals, and processes relevant to advanced generalist social work practice. Focus is on social systems theory, social work roles, theories, and skills necessary to implement processes for achieving desired outcomes in practice with individuals, families, groups, organizations, and communities. Three credits. Offered fall and winter semesters.

SW 610 Social Welfare Policy and Services I. An examination of the social services delivery systems in the United States, including the profession of social work; an analysis of the historical development in economic, political, and social contexts. Three credits. Offered fall and winter semesters.

SW 612 Social Policy: Families and Children. An examination of the historical and contemporary impact of major public policies and programs on the welfare of children and families. Emerging trends and issues and their implications for future social policy, programs, and services. Prerequisite: 610 or permission of instructor. Three credits. Offered spring/summer semester.

SW 614 Social Policy and Mental Health. Examines the development of mental health policies and services in the United States and in Michigan. Public policies and organizations are analyzed and evaluated in relation to trends, impacts, and outcomes on the problem of mental illness in society. Prerequisite: 610 or permission of instructor. Three credits. Offered spring/summer semester.

SW 616 Law, Ethics, and Social Welfare. Examines the relation between law and social welfare as it impacts on human rights and social work practice. Evaluates major value positions in social work practice from personal, philosophical, historical, and political perspectives. Major ethical dilemmas in the practice of social work are outlined and models for ethical

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decision making will be presented. Prerequisite: 610. Three credits. Offered every other year.

SW 620 Human Behavior and the Social Environment. Focuses on the interactions between the person and the social system in which human development and maturation take place. The differential effects of life-cycle, lifestyle, and culturally diverse perspectives are considered in relation to several major theories for assessing human behavior and their relationship to the generalist orientation in social work. Three credits. Offered fall and winter semesters.

SW 622 Psychopathology and Social Deviance. Provides students with a comprehensive body of knowledge, organized and integrated in both theoretical and practical terms. Includes an awareness of the dimensions of deviant or abnormal behavior. Helps students understand the individual in his or her complexities and the process and outcome of human development and forces (internal and external) that enter into the psychodynamics of deviant and/or abnormal human behavior. Prerequisite: 600 and 620. Three credits. Offered winter and spring/summer semesters.

SW 630 Social Work: Global Service Learning. Focus is international and uses a service learning approach. Explores the theme of social welfare development. Includes a two- or three-week experiential learning component in an international location. Demonstrates the interconnectedness between social work, social justice, and civic/global responsibility. Prerequisite: 600. Three or four credits. Offered spring/summer semester.

SW 640 Seminar in Advanced Generalist Practice. A broadening of student knowledge of the professional foundation for practice across populations-at-risk. Students will identify and develop individual topics. (May be taken only once.) Prerequisite: Second year status; must be taken concurrently with 654. Three credits. Offered winter semester.

SW 648 Field Education Laboratory. An experiential learning course preceding the beginning of SW 650 Field Education I. Focus on the development of skills necessary for beginning work as a student in an agency setting. Prerequisite: Must be completed with a grade of B or better one year prior to SW 650 or must be repeated. Three credits. Offered fall and winter semesters.

SW 650 Field Education I. The first in a series of applied field education courses involving 315 clock hours. Emphasis is on the advanced application of assessment, interaction, and evaluation skills within a generalist framework. Prerequisites: 600, 603, 620, 648. Offered on a credit/no credit basis. Three credits. Offered spring/summer and winter semesters.

SW 651 Field Education Seminar I. Focus on the integration of knowledge, skills, and values with advanced generalist practice for students in field education placements. Illustrations from students' work in agency setting included. Prerequisite: Concurrent with 650. Offered on a credit/no credit basis. One credit. Offered spring/summer and winter semesters.

SW 652 Field Education II. A continuation of 650. A 315-clock-hour applied field practicum that has been contracted for by students. Emphasis on the advanced application of assessment, intervention, and evaluation skills within generalist framework. Prerequisites: 650 and 651. Three credits. Offered on a credit/no credit basis. Offered fall semester.

SW 653 Field Education Seminar II. Continuation of 651 with focus on the advanced application of assessment, intervention, evaluation, knowledge, and skills required of students in field education agency setting as generalist practitioners. Prerequisites: 650 and 651 and concurrent with 652. Offered on a credit/no credit basis. One credit. Offered fall semester.

SW 654 Field Education III. A continuation of 652. A 315-clock-hour applied field practicum that has been contracted by students. Emphasis on the advanced application of assessment, intervention, and evaluation skills within the generalist framework. Prerequisites: 652 and 653 and concurrent with 655, 640, 677. Three credits. Offered on a credit/no credit basis. Offered winter semester.

SW 655 Field Education Seminar III. A continuation of 653 with emphasis on evaluation skills and demonstration of knowledge, values, and skills required of advanced generalist practitioners in field education placements. Prerequisites: 652 and 653 and concurrent with 654, 640, 677. Offered on a credit/no credit basis. One credit. Offered winter semester.

SW 660 Grant Writing and Resource Development. Instruction in finding grant sources, writing grants, developing grant budgets, and evaluating grant proposals and programs. Students will be expected to write one actual grant proposal. Three credits. Offered winter semester.

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SW 662 Substance Abuse and Social Work Practice. Examines the impact of the social work profession on substance abuse problems. Considers etiology, epidemiology, prevention, methods of treatment and policy issues, as well as the relationship between race, gender, age, social class, and substance abuse. Three credits. Offered winter semester.

SW 664 Social Work Practice in Schools. Required for social work practitioners in Michigan public schools. Provides an overview of social work practice in a "host" (public school) setting. The school as an institution, its staff, students, community, and laws that affect education and social work practice, as well as methods of practice. Prerequisite: Second year standing or permission of instructor. Four credits. Offered spring/summer and winter semesters.

SW 665 Aging in Contemporary Society. Students gain a specialized knowledge of social work practice with older adults, their families, caregivers, and professionals. Theories of aging and social work practice principles are applied to address contemporary issues that impact citizens' goals for individual autonomy, appropriate health care, income security, and signified social supports. Three credits.

SW 667 Holistic Practices in Social Work. Introduces energy management for behavioral transformation and explores a range of energy management approaches, e.g., acupuncture, biofeedback, massage, qigong, and yoga, among others, as social holistic practice. Focuses on stress management, energy, and capacity development through mind, body, and spirit dynamic application for holistic health and self-actualization. Three credits.

SW 670 Social Work Practice: Individuals. Focuses on selected knowledge and skills from the cognitive/behavioral and psychosocial models and their application to social work practice with individuals. Perspectives on differential assessments and interventions drawn from these approaches will be studied. Factors of minority group status and gender are examined. Prerequisite: Second year standing and concurrent practicum. Three credits. Offered fall and winter semesters.

SW 672 Social Work Practice: Groups. Focuses on concepts, values, skills, and techniques germane to the practice of social group work. Examines the history, roles, theoretical underpinnings, interventive strategies, and modes of group work practice. Prerequisite: Second year standing and concurrent practicum. Three credits. Offered fall semester.

SW 673 Social Work Practice with Children and Adolescents. Prepares students for direct practice with children and adolescents who are experiencing separations, trauma, and other life crises. Encompasses a variety of methods and models, including play therapy and group work. Offers didactic and experiential learning. Prerequisites: 600, 603, 610, 620, and 622. Offered fall semester.

SW 674 Social Work Practice: Families and Children. Examines an integrated model of family practice focusing on family development and dysfunction at various stages in the family life cycle. Using a family system and ecological systems perspective, students are taught specific assessment and intervention knowledge and skill. Concepts from several current models of family practice are studied and drawn upon. Prerequisite: Second year standing and concurrent practicum. Three credits. Offered fall and winter semesters.

SW 675 Child Welfare and Family Services. Prepares students for practice in child welfare and family services in the public or private sector. Addresses social work's historic mission to serve poor and vulnerable families with a variety of direct practice methods in the advanced generalist perspective. Prerequisites: 600, 603, 610, 620. Offered winter semester.

SW 676 Community and Social Planning. Prepares students for professional practice in social planning and community organization. Focuses on a range of theories, concepts, and their application in practice situation. Includes theories of community power and influence, inter-organizational relationships and action strategies for problem solution. Attention will also be given to the development and use of structure and leadership, community problem-solving models and roles, tasks, and activities related to practice. Prerequisites: Second-year standing and 603. Three credits. Offered fall semester.

SW 677 Principles of Supervision. Examines the various tasks and techniques related to supervision in social service agencies. Supervision is introduced as an educational process, an administrative function, and a development tool. Dimensions of the supervisor/worker relationship will be discussed, with particular attention to the impact of gender and race on the process. Prerequisites: Second-year standing; taken concurrently with 654. Three credits. Offered winter semester.

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SW 678 Human Services Administration. Provides a conceptual, theoretical, and methodological foundation in the organization and administration of human services. Inter and intra-organizational variables and characteristics that undergird and impinge upon the effective delivery of human services are examined. Issues and forces affecting the social welfare enterprise will be analyzed along with those factors that differentiate human service organizations from other organizational species. Prerequisites: Second-year standing and 603. Three credits. Offered fall semester.

SW 680 Special Topics in Social Work. Students study issues and concerns important to the social work profession not ordinarily covered in other courses. Offered in response to the special interests of faculty and students. Topic(s) to be announced in advance of registration. Prerequisites: Second year standing and prior approval of faculty advisor. One to four credits. Offered fall semester.

SW 690 Social Research I. The first of two courses in social work research. Foundation concepts and methodology used for scientific practice, including the investigation and evaluation of social work practice problems, an understanding of techniques and issues in measurements, options in research designs, data collection and analysis, and the development of new knowledge in agencies and programs with particular reference to the generalist orientation. Three credits. Offered winter and spring/summer semesters.

SW 693 Social Research II. The second course in social research. Evaluation of social work practice and development of new knowledge with particular reference to the generalist orientation. Emphasis on demonstrating ways to incorporate research skills as an integral part of social work interventions with individuals, families, and larger systems. Includes both small group research and single-system designs. Particular attention given to the rationale for doing single-system research for evaluating social work practice; procedures for developing single-system designs, recording and assessing data for reliability and validity, and using the results for planning effective intervention and follow-up. Also included is content on research ethics for generalist practitioners. Prerequisite: 690. Three credits. Offered spring/summer and fall semesters.

SW 694 Master's Thesis. Faculty-supervised study and research on a subject approved by the student's advisor and committee. Prerequisites: 690 and 693 and consent of thesis advisor. Three credits. Offered fall, winter, and spring/summer semesters.

SW 695 Master's Thesis. Continuation of faculty-supervised research and writing on a subject approved by the student's advisor and committee. Prerequisites: 694 and consent of thesis committee. Three credits. Offered fall, winter, and spring/summer semesters.

SW 699 Independent Study. Independent study of an issue related to social welfare or social work theory or practice. Prerequisite: Approval of advisor and faculty member directing the study. Three credits.

Sociology (SOC)

Chair: deYoung. Professors: deYoung, McCrea, Williams; Associate Professors: Bellrichard-Perkins, Joannise, Whit; Assistant Professors: Battani, Lundskow, Malaret, Phillips, Preves, Rynbrandt, Yu.

The discipline of sociology provides concepts and skills necessary to study human behavior and social life. Sociologists emphasize and examine the diversity of human experience. They look critically and reflectively at past and present society. By combining theory with practice, the discipline of sociology encourages students to understand society as it is and to imagine it as it could be.

A major and minor program is available in sociology. A sociology emphasis is also available in the interdisciplinary behavioral science major.

Requirements for a Major or Minor in Sociology

Students majoring in sociology are required to complete 36 hours in the department, including these core courses: SOC 201, 360, 382, 400 or 401, 495, SS 300,

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SS 384, and three hours in anthropology. Additional work in anthropology can apply toward the major with the consent of the academic advisor. No more than six hours of 399 and 499 combined may count toward the major.

Students may earn either a B.A. or a B.S. degree. The B.A. degree requires third-semester proficiency in a foreign language. The B.S. degree cognate sequence requirement is Statistics 215, Social Science 300, and Sociology 360.

Core Courses (24 hours)

SOC 201	SOC 495 (Capstone)
SOC 360	SS 300
SOC 382	SS 384
SOC 400 or 401	Three hours in Anthropology

Professional Emphasis

This emphasis area is recommended for students who intend to attend graduate school in sociology after completing their baccalaureate degree.

Core (24 hours) plus 12 additional hours to be selected in consultation with major advisor and to include at least one advanced seminar course (SOC 304, 380, 390, 401, or 499). An internship is recommended. Students should consider doing a research internship with a faculty member.

Applied Emphasis

The concentrations described below are designed for students who will most likely seek direct employment in a field related to sociology after graduating and/or who intend to pursue advanced study in a professional area such as social work, counseling, criminal justice, urban planning, or public administration.

1. **Family Services.** Core (24 hours) plus three hours of internship (SOC 490) plus nine additional hours from the following list of courses, selected in consultation with the major advisor: SS 323 The Family, SOC 389 Child Abuse and Neglect in America, SOC 387 Childhood and Youth, SOC 388 Middle Age and Aging, SOC 384 Sociology of Drug Use and Abuse, SS 382 Love, Sex, and Gender, SOC 390 Advanced Seminar on Social Issues (as appropriate), SOC 399 Independent Readings.
2. **Community and Organizational Leadership.** Core (24 hours) plus three hours of internship (SOC 490) plus nine additional hours from the following list of courses, selected in consultation with the major advisor: SOC 351 Urban Sociology or SS 324 Urbanization, GPY 309 Introduction to City and Regional Planning, SOC 420 Sociology of Community, SOC 356 Sociology of Health Care, GPY 307 Introduction to Computer Mapping/Geographic Information Systems, SOC 390 Advanced Seminar on Social Issues (as appropriate), SOC 399 Independent Readings.
3. **Aging and Adult Life.** Core (24 hours) plus three hours of internship (SOC 490) plus nine hours from the following list of courses, selected in consultation with the major advisor: SOC 387 Childhood and Youth, SS 323 The Family, SOC 388 Middle Age and Aging, SS 381 Death and Dying, SOC 345 Social Construction, Identity Place, SOC 356 Sociology of Health Care, SOC 390 Advanced Seminar on Social Issues (as appropriate), SOC 399, Independent Readings.
4. **Deviance and Social Control.** Core (24 hours) plus three hours of internship (SOC 490) plus nine hours selected in consultation with the major advisor from the following list of courses: SOC 250 Perspectives on Madness, SOC 251/CJ

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301 Criminology, SOC 280 Social Problems, SOC 384 Sociology of Drug Use and Abuse, SOC 392 Social Deviance and Social Control, SOC 390 Advanced Seminar on Social Issues (as appropriate), SOC 399, Independent Readings.

Sociology Minor

Students minoring in sociology are required to complete 21 hours in the department. At least 12 hours must be at the 300 or 400 level. No more than three hours of 399 and 499 combined may count toward a minor.

Candidates earning secondary teacher certification will be endorsed to teach sociology in grades 7–12 upon successful completion of the sociology minor and the Michigan Test for Teacher Certification. Candidates are strongly urged to take the following courses to fulfill the minor: SOC 201, 280, 360, 382, 400, SS 300, and SS 384.

Behavioral Science Major (Sociology Concentration)

Psychology and sociology cooperate to offer a major in behavioral science for students who want a broad background in the behavioral sciences. (See Behavioral Science section for description of requirements for major requirements.)

Minor in Aging and Adult Life

The Sociology Department participates in a multi-disciplinary minor in Aging and Adult Life. See section, “Aging and Adult Life,” for further information.

Student Organization

The Sociology Club meets regularly throughout the academic year. The club engages in fundraising, social, career, and graduate school planning activities, and provides a forum for discussing topics relevant to the discipline.

Honors Organization

The Grand Valley State University Theta chapter of Alpha Kappa Delta, the International Sociology Honor Society, promotes excellence in scholarship in the study of sociology, research of social problems, and such other social and intellectual activities as will lead to an improvement in the human condition.

Membership in Alpha Kappa Delta is awarded each year to sociology majors who are juniors or seniors, have an overall GPA of 3.0 or above, and have maintained a 3.0 GPA in a minimum of 12 hours of sociology courses at GVSU.

Career Opportunities

Students majoring in sociology have a wide variety of career options. The discipline emphasizes an understanding of social organization and diversity and prepares students for careers in a variety of settings, including human services, human resources, business, and community organizations. Schools, churches, hospitals, businesses, courts, prisons, mental health agencies, and drug abuse agencies provide specific locations for employment and student internships.

Sample Curriculum—Sociology

First Year

WRT 150 Strategies in Writing
 MTH 110 Algebra
 SOC 201 Introduction to Sociology
 SOC elective
 General education courses
 Electives (or foreign language)

Second Year

ANT elective
 PSY 101 Introductory Psychology
 STA 215 Introductory Applied Statistics
 SS 300 Research Methods in the Social
 Sciences
 SOC elective
 General education courses
 Electives (or foreign language)

Third Year

WRT 305 Writing in the Disciplines
 SOC 360 Social Psychology
 SOC 382 Minority and Ethnic Relations
 SOC 400 History of Social Thought
 SS 384 Social Inequalities
 Electives
 General Education Theme Course

Fourth Year

SOC elective
 SOC 490 Practicum: Career Service
 SOC 495 Senior Seminar in Social Science
 (capstone)
 Electives

Sample Curriculum—Behavioral Science

First Year

ANT 204 Introduction to Cultural
 Anthropology
 WRT 150 Strategies in Writing
 MTH 110 Algebra
 PSY 101 Introductory Psychology
 SOC 201 Introduction to Sociology
 General Education Course
 Electives (or Foreign Language)

Second Year

STA 215 Introductory Applied Statistics
 PSY elective
 SOC 382 Minority and Ethnic Relations
 General Education Course
 SS 300 Research Methods in the Social
 Sciences
 Electives (or Foreign Language)

Third Year

WRT 305 Writing in the Disciplines
 SOC 360 Social Psychology
 Elective
 SOC electives
 PSY elective
 General Education Theme Course

Fourth Year

SOC 495 Senior Seminar in Social Science
 (capstone)
 Electives
 SOC electives
 PSY elective
 General Education Theme Course

Courses of Instruction

SOC 201 Introduction to Sociology. Examines modern Western society in terms of social processes, organizations, institutions, and problems. Demonstrates how sociologists study these aspects of group behavior. Fulfills Social Sciences Foundation. Three credits. Offered fall and winter semesters.

SOC 250 Perspectives on Madness. Focus is on the social construction of madness. Compares the different ways madness has been defined and treated throughout history and in different cultures. Relationship between those labeled mad, those who label, and the sociocultural context will be examined. Part of Perspectives from the Outside theme. Three credits. Offered every year.

SOC 251 Criminology. An analysis of crime, criminal behavior, and punishment through a variety of historical and contemporary theoretical perspectives. Sociology 251 is equivalent

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to Criminal Justice 301. Students may receive credit for only one of these classes. Three credits. Offered on demand.

SOC 255 Sociology of Work and Employment. Examines the social forces changing the organization of work and the occupational structure as well as the tensions and conflicts associated with these changes. Reviews the effects of work on attitudes and behavior. Current trends in work are projected into the near future. Three credits. Offered every year.

SOC 280 Social Problems. An introduction to the sociological analysis of social problems and the application of this analysis to some of the major social problems confronting American society. Fulfills Social Sciences Foundation. Fulfills U.S. Diversity requirement. Three credits. Offered every semester.

SOC 288 Sociology of Food. Considers the way in which values and ideas are socially constructed, with specific focus on the relationship between food and society. A comparative, cross-cultural analysis that examines food production, distribution, preparation, and consumption. Includes nutrition, social eating disorders, religious prescriptions and proscriptions, food and poverty, fast food, and world hunger. Three credits. Offered every year.

SOC 304 Analysis of Sociological Data. Examination of the basic methods of empirical research in sociology. Focus on collection, analysis, and interpretation of data. Prerequisite: Six hours in sociology or consent of instructor. Three credits. Offered on demand.

SOC 333 Sociology of The Civil Rights Movement. This course applies multiple sociological models of social movements to the American Civil Rights Movement from 1940–1970s. Part of Civil Rights Theme. Three credits. Offered fall semester.

SOC 345 Social Construction, Identity, Place. Examines the symbolic processes in the production and circulation of meanings within society and the sociocultural context in the construction and interpretation of social behavior, social identity, and location. Signs, symbols, and social processes related to the production of social reality and the siting of people within social structures. Prerequisites: 201 or ANT 204 or SS 101 or equivalent. Three credits. Offered even-numbered years.

SOC 351 Urban Sociology. Urban theory and research techniques emphasizing the demography, ecology, and social organization of American cities and the sociological aspects of urban planning and redevelopment. Prerequisite: 201. Three credits. Offered winter semester.

SOC 356 Sociology of Health Care. An analysis of the social facets of health and disease, the social functions of health organizations, the relationship of health care delivery to other social systems, the social behavior of health care providers and consumers, and international patterns of health services. Race, class, and gender issues are examined. Part of Health, Illness, and Healing Theme. Three credits. Offered fall and winter semesters.

SOC 357 Sociology of Religion. Critically analyzes religion as an institutional structure and belief system and explores the relationship of religion to social change and organization. Emphasis on religion in the contemporary United States; includes attention to non-Western influences. Part of Perception Theme. Three credits. Offered winter semester.

SOC 360 Social Psychology. Relation of the individual to the social environment with emphasis on personality development and role behavior. Analysis of interpersonal behavior with reference to problems of conformity and influence. Prerequisite: Sociology 201 or Psychology 101. Sociology 360 is equivalent to Psychology 360. Students may not receive credit for both courses. Three credits. Offered every semester.

SOC 366 Sociology of Media. A study of the underlying values and ideologies of the mass media culture. How do mass media determine the facts and frame events and debates that are important to our lives? What are the constraints of news work and the resources available to news people? We will also cover the organizational makeup of newspapers and TV newsrooms and the relationship of the industry to its audience. Part of Society and the Media theme. Three credits. Offered every year.

SOC 375 Perspectives on Masculinity. Discusses and analyzes social and political perspectives on men and the men's movements. Engages students to look critically at men and sports, sexuality, work, and friendship. Part of Gender and Identity theme. Three credits. Offered every year.

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SOC 380 Special Topics Seminar. A seminar for the study of important topics not ordinarily covered in other courses. This course may be taken more than once when the topic is different. One to three credits. Offered in response to special departmental interests of faculty and students.

SOC 381 Class, Race, and Gender. Focus is on the social, historical, and cultural meanings of class, race, and gender. Specifically, the intent of the course is to give students a better understanding of the interrelationship of class, race, and gender within the context of family life, schooling, and work. Fulfills U.S. Diversity requirement. Part of American Mosaic Theme. Prerequisite: 201 or 280. Three credits. Offered winter semester.

SOC 382 Minority and Ethnic Relations. An examination of majority-minority relations in contemporary society with attention to specific ethnic, religious, and racial minorities, particularly the African Americans. Fulfills U.S. Diversity requirement. Prerequisite: 201. Three credits. Offered every semester.

SOC 383 Sociology of Women. Examines the social and cultural construction of gender differences and sociological theories of gender. Explores both the historical and contemporary status of women. Three credits. Offered fall semester.

SOC 384 Sociology of Drug Use and Abuse. Analysis of past and present patterns of drug (including alcohol) use and abuse. Causes, extent, legal aspects, and methods of treatment. Three credits. Offered fall and winter semesters.

SOC 387 Childhood and Youth. An examination of the process of aging in American society with an emphasis on childhood and youth. Consideration will be given to the development of childhood, the social-psychological stages of childhood and youth, the conditions giving rise to the adolescent movement, the impact of youth, and special problems of youth in America. Prerequisite: 201. Three credits. Offered fall semester of even-numbered years.

SOC 388 Middle Age and Aging. An examination of some of the myths about aging: older people are less likely to change, are less productive, etc. Major attention will be given to psychological stages of the life cycle, socio-psychological theories of aging, literary and historical portrayals of aging, and cross-cultural differences. Three credits. Offered winter semester of odd-numbered years.

SOC 389 Child Abuse and Neglect in America. An examination of the individual, familial, community, and sociocultural causes of child maltreatment in this country. Focus is on the analysis and integration of theory, research, and practice. Three credits. Offered every semester.

SOC 390 Advanced Seminar on Social Issues. An in-depth analysis of a specific social issue, problem, or sociological area. Seminar in format, the course is intended to give majors an opportunity to continue to pursue some topic of interest in depth. Topics vary. Students may take more than once if topic is different. Three credits. Offered every year.

SOC 392 Social Deviance and Social Control. An analysis of deviant behavior: its causes, manifestations, prevention, and programs of control. Special attention is given to the role of social norms in generating as well as controlling deviance. Emphasis is put on ways in which social structures generate and label deviants. Part of Freedom and Social Control theme. Three credits. Offered every year.

SOC 399 Independent Readings. Independent supervised readings in selected topics. A student may take only one reading course for one to three credits per term. No more than six hours of 399 and 499 combined may count toward a major or three hours of 399 and 499 combined toward the minor. Prerequisites: 201 and the written consent of the instructor before registration. Offered on demand.

SOC 400 History of Social Thought. A critical survey of the social thinking of outstanding students of society, from Plato to modern social scientists. Prerequisite: Six hours in sociology. Three credits. Offered fall semester.

SOC 401 Sociological Theory. A study of major theoretical viewpoints in contemporary sociology. The course is oriented toward the understanding, application, and extension of these major perspectives. Prerequisite: Six hours in sociology. Three credits. Offered winter semester.

SOC 420 Sociology of Community. Provides students with an understanding of the concept of "community." Combines theory and practice. Students will work together as a team to examine, analyze, experience, and improve community life. SOC 420 is equivalent to GPY

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420. Students may not receive credit for both courses. Prerequisites: SOC 201 or GPY 220; STA 215, SS 300. Three credits. Offered winter semester of even-numbered years.

SOC 490 Practicum: Career-Service. Agency experience in the community relating practical training and independent study in a specialized area. Limited to 10 credits maximum. Prerequisites: 15 hours of course preparation and permission of instructor. One to nine credits. Offered on a credit/no credit basis. Offered every semester.

SOC 495 Senior Seminar in Social Science (Capstone). Considers the contemporary debates in the social sciences. By active reading and discussion of these debates, students write a personal assessment of their work to date and present a senior paper. Prerequisites: Senior standing in the department and written permission of instructor before registering. Three credits. Offered fall and winter semesters.

SOC 499 Independent Study and Research. Research conducted individually with faculty supervision. Attention given to written and oral presentation of research findings. A student may take only one independent study course for one to four credits per term. No more than six hours of 399 and 499 combined may count toward a major or three hours of 399 and 499 combined toward the minor. Prerequisites: Nine hours in the department and written permission of instructor before registration. Offered on a credit/no credit basis. Offered every semester.

Social Science Courses

The following are interdisciplinary social science courses that may be used for a sociology major or minor. Consult your advisor for further information.

SS 101 The Idea of a Social Science. Focuses on the development of modern social science from the seventeenth century to the present. Some of the major approaches and conclusions regarding the study of human behavior will be critically evaluated. Controversies within the social sciences will also be addressed. Three credits. Offered every semester.

SS 300 Research Methods in the Social Sciences. Examination of basic investigatory methods in the social sciences. Focus on logic and theory of social research, including formulating and testing hypotheses, research design, sampling procedures, data collection techniques, and the ethics of conducting research. Prerequisite: STA 215. Three credits. Offered every semester.

SS 323 The Family. An examination of the basic concepts of culture and their application, first to the American family and then to the family in other cultures. Fulfills U.S. Diversity requirement. Three credits. Offered every semester.

SS 381 Death and Dying. Considers the way in which ideas and values are socially constructed and contextually grounded. Specific focus on the historical, socioeconomic, psychological, and political construction of death and dying in the United States. A comparative aspect is also provided. Part of Death and Dying Theme. Prerequisite: Junior standing. Three credits. Offered fall semester.

SS 382 Love, Sex, and Gender. Considers the way in which ideas and values are socially constructed and contextually grounded. Focus on the historical, socioeconomic, psychological, and political construction of love, sex, and gender in the United States. A comparative aspect is also provided. Part of Gender, Society, and Culture theme. Prerequisite: Junior standing. Three credits. Offered fall semester.

SS 384 Social Inequalities. Consideration of the way in which ideas and values are socially constructed and contextually grounded. Specific focus on the historical, socioeconomic, and political construction of inequality in the United States. A comparative aspect is also provided. Part of Perspectives from the Outside theme. Prerequisite: Junior standing. Three credits. Offered fall and winter semesters.

Statistics (STA)

Chair: Stephenson. Associate Professors: Hong, Jinn, Rogness; Assistant Professors: Curtiss, Gabrosek, Makhnin, Reischman, Stephenson; Visiting Instructor: Hower.

Degrees Offered: B.S., B.A. in statistics; minors in applied statistics and statistics. The mathematics major and minor are described in the Mathematics section of the catalog.

Career Opportunities

Successful college graduates are those who have strong mathematical, statistical, and computer skills and are able to effectively communicate statistical results to nonstatistical audiences. Employers are eagerly seeking men and women who have these types of skills. Grand Valley's statistics major will equip you with the skills needed to meet the increasing demands of business and industry for people who can provide leadership in making management decisions based on disciplined data collection and statistical analysis.

Graduates will learn the theoretical foundations of the field and how to apply statistical methods to a variety of subject areas such as business administration, computer science, economics, engineering, psychology, and the biological, physical, and social sciences. They may use this knowledge to predict population growth, to forecast economic and business trends, or to analyze market research data on the viability of a new product. Statistical techniques are increasingly used to evaluate new teaching methods in education and cause and effect in the behavioral sciences. Medical and pharmaceutical research depends heavily on statistical methodology. It is necessary to use statistics to evaluate sample surveys that determine public opinions or the extent of social problems in our society.

Another exciting area that requires the use of statistics is that of actuarial science. Actuaries are statisticians who use their quantitative skills to analyze and plan for future financial situations. For example, they estimate the impact of seatbelt laws in automobile losses and determine appropriate rate discounts, calculate the price to charge for insuring a satellite launch, and project what the AIDS epidemic will cost life and health insurance companies in 5, 10, and 20 years. The demand for college graduates with these specialized skills is ever increasing. The major in statistics prepares students for such a career.

Many other applications exist, such as monitoring and controlling quality in manufacturing, determining the effects of environmental pollution, and aiding business managers and government officials in their decision-making process. In fact, any area that uses the scientific method in the decision-making process is a candidate for the application of statistics.

Not only will students receive a thorough understanding of the theory and application of statistical methods, but they will receive hands-on experience in the analysis of real-life data. Our program also gives training in oral and written communication skills, which are essential in today's society. Finally, students majoring in statistics will be highly skilled in the operation of statistical computer packages such as SAS, SPSS, and Statgraphics.

Requirements for a Major in Statistics

The statistics major is offered within the Department of Mathematics and Statistics. Students must complete the following requirements:

1. University degree requirements as identified in the General Academic Regulations section of the catalog.
2. Statistics Requirements (29 credits)

Statistics

All majors must complete the following statistics core courses (23 credits):

STA 215 Introductory Applied Statistics or STA 312 Probability and Statistics
STA 216 Intermediate Applied Statistics
STA 311 Introduction to Survey Sampling
STA 315 Design of Experiments
STA 319 Statistics Project
STA 412 Mathematical Statistics I
STA 415 Mathematical Statistics II*

All majors must complete two of the following statistics elective courses (6 credits):

STA 310 Introduction to Biostatistics
STA 314 Statistical Quality Methods
STA 317 Nonparametric Statistical Analysis
STA 321 Applied Regression Analysis

3. Cognate Requirements (16 credits)

The following cognates are required of all students majoring in statistics:

MTH 201 Calculus and Analytic Geometry I**
MTH 202 Calculus and Analytic Geometry II**
MTH 227 Linear Algebra I
CS 162 Computer Science I **

4. Application Cognates (a minimum of six credits)

Each major in statistics must select an area of application consisting of at least six credits from outside statistics. Students must meet with their statistics advisor to develop specific plans for their application cognates. Students are strongly encouraged to meet with their advisor as soon as their major in statistics is declared.

Sample Curriculum

The following two sample statistics schedules assume the student is in contact with an advisor for the appropriate general education requirements and has a strong mathematical background. Students who do not begin their mathematical sequence with MTH 201 will need to make appropriate changes. Sample curriculum 1 assumes students take MTH 201 in the fall of their first year; sample curriculum 2 assumes students take MTH 201 in the fall of their second year.

Sample Curriculum 1

First Year

Fall

MTH 201 Calculus and Analytic
Geometry I

Winter

MTH 202 Calculus and Analytic
Geometry II
CS 162 Computer Science I

*Satisfies capstone course requirement for a statistics major.

**Completion of MTH 201, MTH 202, and CS 162 satisfies the B.S. degree cognate for statistics majors. Completion of these courses plus the foreign language requirement for a B.A. satisfies the B.A. degree cognate for statistics majors.

Statistics

Second Year

Fall

STA 312 Probability and Statistics
MTH 227 Linear Algebra I

Winter

STA 216 Intermediate Applied Statistics

Third Year

Fall

STA 315 Design of Experiments
One of the statistics electives

Winter

STA 311 Introduction to Survey Sampling
STA 319 Statistics Project

Fourth Year

Fall

STA 412 Mathematical Statistics I
One of the statistics electives

Winter

STA 415 Mathematical Statistics II

Sample Curriculum 2

First Year

Fall or Winter

STA 215 Introductory Applied Statistics

Second Year

Fall

STA 216 Intermediate Applied Statistics
MTH 201 Calculus and Analytic Geometry I
CS 162 Computer Science I

Winter

One of the statistics electives
MTH 202 Calculus and Analytic
Geometry II

Third Year

Fall

STA 315 Design of Experiments
MTH 227 Linear Algebra I

Winter

STA 311 Introduction to Survey Sampling
STA 319 Statistics Project

Fourth Year

Fall

STA 412 Mathematical Statistics I
One of the statistics electives

Winter

STA 415 Mathematical Statistics II

Students majoring in statistics who plan to do graduate work are strongly encouraged to take MTH 203, Calculus and Analytic Geometry III, in the fall of their second year and MTH 227, Linear Algebra I, in the winter of their second year.

Requirements for a Minor in Applied Statistics

The applied statistics minor is offered within the Department of Mathematics and Statistics and consists of seven courses (at least 21 credits).

All minors must complete the following statistics core courses (six credits):

STA 215 Introductory Applied Statistics or STA 312 Probability and Statistics
STA 216 Intermediate Applied Statistics

Statistics

All minors must complete five additional courses (at least 15 credits). At least three of the courses must come from the following list:

STA 310 Introduction to Biostatistics
STA 311 Introduction to Survey Sampling
STA 314 Statistical Quality Methods
STA 315 Design of Experiments
STA 317 Nonparametric Statistical Analysis
STA 319 Statistics Project
STA 321 Applied Regression Analysis
STA 412 Mathematical Statistics I
STA 415 Mathematical Statistics II

One or two of the five courses may be courses outside of statistics that apply statistical methodology. In this situation students must meet with a member of the statistics faculty to develop specific plans for the courses outside of statistics. Students are strongly encouraged to meet with a statistics faculty member as soon as they decide to minor in applied statistics.

Requirements for a Minor in Statistics

The statistics minor is offered within the Department of Mathematics and Statistics and consists of six courses (at least 22 credits).

All minors must complete the following core courses:

STA 312 Probability and Statistics
STA 216 Intermediate Applied Statistics
STA 412 Mathematical Statistics I
MTH 201 Calculus and Analytic Geometry I
MTH 202 Calculus and Analytic Geometry II

In addition, all minors must complete one additional course, selected in consultation with a member of the statistics faculty, from the following list:

STA 310 Introduction to Biostatistics
STA 311 Introduction to Survey Sampling
STA 314 Statistical Quality Methods
STA 315 Design of Experiments
STA 317 Nonparametric Statistical Analysis
STA 319 Statistics Project
STA 321 Applied Regression Analysis
STA 415 Mathematical Statistics II

Courses of Instruction

STA 215 Introductory Applied Statistics. A technique-oriented approach to statistical problems with emphasis on applications. Descriptive statistics, probability distributions, estimation, testing hypotheses, t-test, regression and correlation, chi-square tests, one-way analysis of variance. A statistical software package will provide computational assistance. Prerequisite: MTH 110 or equivalent. Fulfills Mathematical Sciences Foundation. Three credits. Offered every semester.

STA 216 Intermediate Applied Statistics. Project-oriented introduction to major statistical techniques using a statistical package such as SAS or SPSS. Hypothesis testing, t-test, multivariate regression, analysis of variance, analysis of covariance, chi-square tests, non-parametric statistics. Prerequisite: 215 or 312. Three credits. Offered fall and winter semesters.

STA 310 Introduction to Biostatistics. An introduction to the statistical methods commonly encountered in medical, biological, and health science problems using a statistical package such as SAS or SPSS. Longitudinal data analysis, repeated measures ANOVA, Friedman test, categorical data analysis, odds ratios, sensitivity and specificity, McNemar's test, logistic

Statistics

regression, survival analysis, and reliability. Prerequisite: 216. Three credits. Offered winter semesters of even-numbered years.

STA 311 Introduction to Survey Sampling. A project-oriented overview of topics related to survey sampling. Topics include sampling and non-sampling errors, questionnaire design, non-probability and probability sampling, commonly used sampling methods (e.g., simple random, stratified, systematic, cluster), estimating population sizes, and random response models. SAS or a sampling package software will be used. Prerequisite: 216. Three credits. Offered winter semesters.

STA 312 Probability and Statistics. Introduction to the basic concepts of probability and statistics using calculus; discrete and continuous probability distributions, sampling, estimation, confidence intervals, tests of hypotheses, regression and correlation, applications, and problem solving. Prerequisite: MTH 201. Three credits. Offered fall and winter semesters.

STA 314 Statistical Quality Methods. Statistical techniques applicable to problems of product quality. Methods and philosophy of statistical process control such as reduction of random variability, control charts, and process capability studies. Modern methods for quality control and improvement, including on-line and off-line procedures. Various management philosophies of quality improvement. Applications and projects. Prerequisite: 215 or EGR 103. Three credits. Offered fall and winter semesters.

STA 315 Design of Experiments. Application-oriented overview of designed experiments. Students will learn about planning and conducting experiments and about analyzing the resulting data using a major statistical package. Simple comparative experiments concerning means and variances, experiments with single or multiple factors, factorial designs, and response surface methodology. Prerequisite: 216 or 312 or 314. Three credits. Offered fall semester.

STA 316 Advanced Applied Statistics. Principles of experimental design and multivariate analysis using a statistical package such as SAS or SPSS. Multivariate regression, analysis of variance, general linear model designs, special designs such as factorial model, time-series analysis, cluster analysis, discriminant analysis, and factor analysis. Prerequisite: 216. Three credits. Offered fall semester.

STA 317 Nonparametric Statistical Analysis. Applied statistical analysis when the distributions of the populations are unknown. Students will learn how to test for location, test for distributions, compare populations, and calculate measures of association. A statistical software package will be used. Prerequisite: 216. Three credits. Offered winter semesters of odd years.

STA 318 Statistical Computing. A detailed study of the advanced features of major statistical packages used in statistical computing, such as SAS and SPSS. Emphasis on the data entry, data manipulation, data storage, data simulation, and graphical display features of these packages. Prerequisite: 215. Three credits.

STA 319 Statistics Project. Students will learn a systematic approach to statistical consulting, how to communicate with nonmathematical audiences, and develop the ability to apply appropriate statistical techniques to research questions. Actual experience with current university and industry research projects and SAS/SPSS is given. Prerequisite: 216. Three credits. Offered winter semesters.

STA 321 Applied Regression Analysis. Multivariate regression analysis with emphasis on application using a statistical software package. Topics include method of least squares, residual analysis, collinearity, data transformation, polynomial regression, general linear model, selecting a best regression model, and logistic regression. Prerequisite: 216. Three credits. Offered fall semester.

STA 380 Special Topics. Readings, lecture, discussions, or lab (or any combination) in specific statistics topics. Prerequisites depend upon topic selected. Permission of the instructor required. One to three credits. Offered on sufficient demand.

STA 412 Mathematical Statistics I. A theoretical study of the following topics: sample space, conditional probability, independence, Bayes' Theorem, Bernoulli Trials, discrete and continuous random variables and their distributions, Chebyshev's inequality, joint distribution, expectation, variance, and moment generating functions. Prerequisite: either 215 or 312, and MTH 202. Four credits. Offered fall semester.

STA 415 Mathematical Statistics II (capstone). A theoretical study of the following topics: the Law of Large Numbers, the Central Limit Theorem, the nature of statistical inference,

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tests of hypotheses, sampling theory, point and interval estimation, linear models, analysis of categorical data, and distribution-free methods. Prerequisites: 412 and MTH 227. Four credits. Offered winter semester.

STA 490 Statistics Internship. Internship in a statistical situation with individual faculty supervision to allow students to apply academic knowledge to actual and professional experiences. Graded credit/no credit. Prerequisite: Junior status and permission of the instructor. Offered fall and winter semesters. One to three credits.

STA 499 Independent Study and Research. Independent research in an area of interest to the students, supervised by a member of the statistics faculty. Hours, credits, topics, and time to be arranged by the student in conference with professor. Approval of the department required. One to three credits. Offered fall and winter semesters.

STA 513 Probability and Statistics for Engineers. Application-oriented introduction to topics in probability and statistics commonly encountered in engineering. Descriptive statistics, discrete and continuous probability distributions, sampling distributions, estimation of and hypothesis testing for parameters, and linear regression analysis. Prerequisites: MTH 201 and either STA 215 or EGR 103. Two credits. Offered the second half of fall semesters.

STA 610 Applied Statistics for Health Professions. Project-oriented overview of major statistical techniques commonly used in problems encountered in health professions. Students will learn to use a major statistical computing package. Hypothesis testing, t-tests, regression, analysis of variance, analysis of covariance, categorical data analysis, nonparametric statistics. Prerequisite: 215 or equivalent. Three credits. Offered fall and winter semesters.

STA 615 Design of Experiments for Engineers. Application-oriented overview of designed experiments commonly encountered in engineering. Students will learn about planning and conducting experiments and about analyzing the resulting data using a major statistical package. Simple comparative experiments concerning means and variances, experiments with single or multiple factors, factorial designs, Taguchi designs, and response surface methodology. Prerequisites: 513 or 312 or 314. Three credits. Offered winter semesters.

Therapeutic Recreation (REC)

Director: Beck. Assistant Professors: Beck, Passmore; Clinical Adjunct: Sunden.

Degree offered: B.S. in therapeutic recreation.

Therapeutic recreation/recreation therapy is an allied health profession involved in the care of patients/clients with a variety of diagnoses and functional limitations. Recreation therapy uses a continuum of care service model (Van Andel, 1994), which provides response to diagnoses, treatment/rehabilitation, remediation, leisure education, recreation participation, and prevention/health promotion.

Career Opportunities

The field of therapeutic recreation has continued to grow and offers diverse opportunities for employment. Recreation therapists may serve as counselors, community educators and organizers, administrators, supervisors, consultants, and researchers. Professionals might find themselves in any of the following settings: hospitals, physical medicine and rehabilitation, psychiatric hospitals, community mental health clinics, substance abuse centers, respite day programs, hospice, school systems, schools or residential centers for those with specific disabilities, special schools or treatment clinics, child protective agencies, sheltered workshops, programs operated by public recreation and park departments.

Therapeutic Recreation/Recreation Therapy at Grand Valley

Therapeutic recreation/recreational therapy is a four-year program, plus one semester of internship, which leads to a bachelor of science degree. The program

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offers a highly articulated and sequenced curriculum. All students must seek advising from a department faculty member before embarking on the program.

The baccalaureate curriculum provides educational opportunities that prepare students for entry level positions in therapeutic recreation/recreation therapy. Students are prepared to meet consumer health needs in a dynamic and culturally diverse world by completing a comprehensive curriculum that includes theoretical and practical experience and application. Students need to be able to use clinical reasoning skills such as problem solving, formulating concepts, making judgments, analyzing behaviors and tasks, and determining appropriate intervention. The following abilities are important for students to possess for the therapeutic recreation profession: commitment to learning, interpersonal skills, communication skills, effective use of time and resources, use of constructive feedback, professionalism, responsibility, critical thinking, and stress management skills.

Admission

Students who have been accepted by the University through the Admissions Office will follow the outlined procedures.

All undergraduate students interested in health-related programs at Grand Valley register as prehealth majors for their freshman year and complete core courses that are required of prehealth majors and that are pertinent to therapeutic recreation.

The admission process for Therapeutic Recreation consists of three phases. These phases are outlined below.

Phase I

Phase I consists of having the following prerequisites met or being currently enrolled at the time of application for admission: overall GPA of 2.7 or above, PSY 101, BIO 112, and CHM 109.

Phase II

Phase II consists of the actual application process. Students must submit all application materials to the Director of the Therapeutic Recreation Program. The application consists of the following components, all of which must be completed and submitted by March 1, prior to the intended Fall entry (applications available in the School of Health Professions Office). Late applications will be considered assuming requirements are met and there is space in the program.

- Application form.
- Autobiographical sketch.
- Statement of professional goals.
- Fifty hours of volunteer or paid work in a therapeutic setting.
- Two letters of recommendation from therapeutic recreation specialists, related health care, or other recreation professionals with whom the applicant has completed volunteer or paid work hours.

Phase III

Upon completion of Phases I and II, students will be notified of provisional admission into the program and will be asked to set up an advising appointment with the Director of Therapeutic Recreation. Students will be given a permit to register for REC 110 and 111 for the fall semester. Upon successful completion of these two courses (80 percent competency/B- in each course), the student will be granted full admission into the Therapeutic Recreation Program.

Therapeutic Recreation

Transfer students will follow the above process and meet the same criteria. Students should note that it is best to complete only one year at another institution (i.e., community college). This would facilitate completing the therapeutic recreation program at Grand Valley within the three year and one semester rotation of therapeutic recreation course work.

Major Requirements: Therapeutic Recreation

The curriculum for the bachelor's degree in therapeutic recreation is designed to provide the essential competencies and skills related to professional practice in therapeutic settings. Students desiring a major in therapeutic recreation must complete the following:

1. University degree requirements as identified in the General Academic Regulations section of the catalog.
2. Therapeutic Recreation Core:
 - REC 110 Foundations and Philosophy of Recreation
 - REC 111 Foundations of Therapeutic Recreation
 - REC 200 Leisure Education
 - REC 253 Diagnostic Groups in Therapeutic Recreation
 - REC 256 Therapeutic Recreation Programming
 - REC 308 Recreation Leadership
 - REC 310 Interventions in Therapeutic Recreation
 - REC 318 Field Work in Recreation
 - REC 404 Issues in Recreation and Leisure (capstone) (SWS)
 - REC 405 Administration of Therapeutic Recreation
 - REC 407 Assessment and Evaluation in Therapeutic Recreation
 - REC 490 Internship in Therapeutic Recreation
3. Electives (two courses):
 - REC 312 Therapeutic Recreation for Mental Retardation
 - REC 313 Therapeutic Recreation for Physical Disability
 - REC 315 Therapeutic Recreation for Mental Health
 - REC 316 Therapeutic Recreation with the Elderly
 - REC 317 Therapeutic Recreation for Pediatrics
 - REC 380 Special Topics
4. Cognates:
 - BIO 112 General Biology II
 - CHM 109 Introductory Chemistry
 - CHM 230 Introduction to Organic and Biochemistry
 - HS 111 Medical Terminology
 - HS 208 Human Anatomy
 - HS 280 Human Physiology
 - HS 281 Human Physiology Laboratory
 - MOV 300 Kinesiology
 - MOV 304 Physiology of Activity
 - PSY 101 Introductory Psychology
 - PSY 303 Abnormal Behavior
 - PSY 364 Life-Span Developmental Psychology
 - SHP 220 Health Care Delivery
 - STA 215 Introductory Applied Statistics
5. Academic Standards.

To embark on the fieldwork and internship experience, students must show academic competence. The criterion for competence is 80 percent in each REC designated course.

Therapeutic Recreation

6. Certifications.
 - a. First aid/CPR certification must be current before registering for REC 318, Fieldwork, or REC 490, Internship.
 - b. Water Safety Instructor (W.S.I.) certification is often an internship requirement in a clinical rehabilitation setting. Students interested in physical rehabilitation or aquatics should consider pursuing this certification.

7. Credential.

National Council for Therapeutic Recreation Certification (N.C.T.R.C.) Credential: It is the students' responsibility to be sure that they comply with N.C.T.R.C. standards during their course of study. The certification process can only be pursued by the graduate. Universities and colleges are not permitted to enter into this process. Grand Valley's therapeutic recreation faculty can only advise the student on which courses to take. Upon application, the N.C.T.R.C. board has the sole responsibility of reviewing the academic program and ascertaining whether a graduate is permitted to sit for the National Certification Examination. All decisions regarding certification are determined by the N.C.T.R.C. Board.

Sample Curriculum

First Year

Fall		Winter	
CHM 109 Introductory Chemistry	5	BIO 112 General Biology II	4
FS 100 Freshman Seminar	1	WRT 150 Strategies in Writing	4
MTH 110 Algebra	4	SHP 220 Health Care Delivery	2
PSY 101 Introductory Psychology	3	STA 215 Introductory to Statistics	3
General education course	3	General Education	3
	16		16

Second Year

Fall		Winter	
REC 110 Foundations of Recreation/ Leisure	3	HS 111 Medical Terminology	2
REC 111 Foundations of Therapeutic Recreation	3	HS 208 Human Anatomy	3
CHM 230 Introduction to Organic & Biochemistry	5	REC 200 Leisure Education	3
General education course	3	REC 253 Diagnostic Groups in Therapeutic Recreation	3
	14	General education course	3
			14

Third Year

Fall		Winter	
HS 280 Human Physiology	3	ENG 305/General education course	3
HS 281 Human Physiology Lab	1	PSY 364 Life Span Development	3
REC 256 Therapeutic Recreation Programming	3	REC 310 Intervention in Therapeutic Recreation	3
REC 308 Recreation Leadership	3	REC 312 Therapeutic Recreation for Mental Retardation*	2
General education course	3	REC 313 Therapeutic Recreation for Physical Disability*	3
	13	Theme Course	3
			12/17

Therapeutic Recreation

Summer

REC 318 Fieldwork in Therapeutic Recreation (300 hours)
Eligibility: 80 percent competence in REC-designated courses.

Fourth Year

Fall		Winter	
MOV 300 Kinesiology	3	MOV 304 Physiology of Activity	3
REC 315 Therapeutic Recreation in Mental Health*	3	REC 317 Therapeutic Recreation for Pediatrics*	3
REC 316 Therapeutic Recreation with the Elderly*	3	REC 404 Issues in Recreation/Leisure	3
REC 407 Assessment and Evaluation in Therapeutic Recreation	3	REC 405 Administration of Therapeutic Recreation	3
PSY 303 Abnormal Psychology	3	Theme Course	3
	<u>9/15</u>		<u>12/15</u>

Summer

REC 490 Internship in Therapeutic Recreation (600 hours).
Eligibility: 80 percent competence in REC-designated courses.
Last course of the program.

Courses of Instruction

REC 110 Foundations of Recreation and Leisure. An introductory course providing an overview of the history, philosophy, and concepts of recreation and leisure in modern society; leisure service delivery; health and wellness promotion; cross-cultural comparative studies of leisure lifestyles. (2-1-0). Three credits. Offered fall semester.

REC 111 Foundations of Therapeutic Recreation. Acquaints students with the history, philosophy, theories, and professionalism of therapeutic recreation and factors influencing service delivery. (2-1-0). Three credits. Offered fall semester.

REC 200 Leisure Education. To develop the knowledge and skills necessary to facilitate the development of leisure awareness, leisure skills, social skills, and leisure resources for persons with disabilities and the general public. The student will learn the leisure education process, activities, and facilitation techniques by going through the leisure education process themselves. (2-1-0) Three credits. Offered winter semester.

REC 253 Diagnostic Groups in Therapeutic Recreation. Emphasis on the delivery of therapeutic recreation services for persons with illnesses, disabilities, and those who are disadvantaged. Focus on symptomology, etiology, prognosis, and remediation using therapeutic intervention; includes an overview of the effects of illness and disability on the family. (2-1-0). Prerequisites: 110 and 111. Three credits. Offered winter semester.

REC 256 Therapeutic Recreation Programming. Emphasis on systematic program planning and general recreation programming in therapeutic recreation settings. Important components in program planning include assessment, activity analysis, developmental and age appropriate activities, adaptations and modifications, and program evaluation. Prerequisite: 253. (2-1-0). Three credits. Offered fall semester.

REC 308 Recreation Leadership. Overview of theories and principles of leadership and the group dynamics process. Leading individual and small groups in a therapeutic environment. Practical experience in leading special events. Corequisite: 256. (2-1-0). Three credits. Offered fall semester.

REC 310 Interventions in Therapeutic Recreation. An in-depth study of the intervention techniques and modalities used in implementing therapeutic recreation programs. Topics include treatment approaches, counseling techniques, and the facilitation process. Prerequisites: 256 and 308. (2-1-0). Three credits. Offered winter semester.

REC 312 Therapeutic Recreation for Mental Retardation. Provides the knowledge and skills related to the delivery of therapeutic recreation services to persons with mental retardation. Prerequisite: 308 or permission of instructor. (1-1-0). Two credits.

University Studies

REC 313 Therapeutic Recreation for Physical Disability. Provides students with the knowledge and skills related to the delivery of therapeutic recreation services for persons with physical disabilities and other chronic conditions. Focuses on rehabilitation and community reintegration, in-patient and out-patient services. Prerequisite: 310 or permission of instructor. (2-1-0). Three credits. Offered winter semester.

REC 315 Therapeutic Recreation for Mental Health. An introduction to the emotionally impaired population. Emphasis on characteristic of the group, activities to facilitate change in different behavioral domains, therapeutic interventions for adults and children, treatment settings and services, and trends in programming. Prerequisite: 310, PSY 303, or permission of instructor. (2-1-0). Three credits. Offered fall semester.

REC 316 Therapeutic Recreation with the Elderly. Involves the study of the needs and services for the well and frail elderly; the response and role of therapeutic recreation service. Community service and practical experience in program planning and delivery. Prerequisite: 310 or permission of instructor. (2-1-0). Three credits. Offered winter semester.

REC 317 Therapeutic Recreation for Pediatrics. To provide the student with knowledge on therapeutic recreation treatment for pediatric patients from birth through adolescence with a variety of impairments. Emphasis will include developmental progress, assessment, main diagnostic classifications, modalities, source delivery systems, community reintegration, case studies, and research. (2-1-0) Three credits. Offered winter semester.

REC 318 Fieldwork in Therapeutic Recreation. To be taken in an agency offering a therapeutic recreation program or in a community setting for persons with special needs. Involves practical experience in a supervised program under the direction of an off-campus cooperating agency. Graded credit/no credit. Three credits. Offered every semester.

REC 380 Special Topics. Provides an opportunity for students to pursue advanced or specialist study in topics related to the field of therapeutic recreation. The selected topics are not ordinarily dealt with in other courses. Can be repeated. Prerequisite: Permission of instructor. One to four credits. Offered on sufficient demand.

REC 399 Independent Readings and Special Activities. Special studies in therapeutic recreation upon consultation with faculty advisor and approval of director of the School of Health Sciences. One to three credits. Offered every semester.

REC 404 Issues in Recreation and Leisure (capstone). An overview of current issues in parks, and recreation and therapeutic recreation. (2-1-0). Three credits. Offered winter semester.

REC 405 Administration of Therapeutic Recreation. Basic principles of organizing and managing quality therapeutic recreation services. Content areas include supervisory and administrative responsibilities, continued quality improvement (CQI), risk management, facility management, budgeting, personnel and volunteer management. Prerequisite: 318. (2-1-0). Three credits. Offered winter semester.

REC 407 Assessment and Evaluation in Therapeutic Recreation. Provides an opportunity for students to study a variety of assessment and evaluation models in therapeutic recreation to ensure accountability and documentation. Prerequisite: 310. (2-1-0). Three credits. Offered fall semester.

REC 490 Internship in Therapeutic Recreation. Fifteen-week, (600 hours) full-time internship. Must be taken under the supervision of a certified therapeutic recreation specialist (CTRS). Prerequisites: Senior standing, last semester of program, and satisfactory completion of the therapeutic recreation core. Twelve credits. Offered every semester.

REC 499 Independent Study and Research. Special studies in therapeutic recreation upon consultation with faculty advisor and director of the School of Health Sciences. One to three credits. Offered every semester.

University Studies (US)

Coordinator: Seeger.

US 101 Diversity in the United States. Examines the multicultural nature of the United States. Focus is on the demography and cultural heritage of multiple racial groups in the United States and on multiculturalism as an issue. Students also study different conceptual ways of explaining relations between diverse groups of people. Fulfills U.S. Diversity requirement. Three credits. Offered fall and winter semesters.

Women and Gender Studies

Women and Gender Studies Minor (WGS)

Coordinator: Chown.

The women and gender studies minor offers an interdisciplinary curriculum in the scholarship of women's studies, men's studies, and gay, lesbian, and bisexual studies. The minor (1) acquaints students with the scholarship on women and gender; (2) raises awareness of how categories of gender and sexuality affect and are affected by our everyday lives, historical currents, social institutions, science, art, and literature; and (3) prepares students for graduate school and/or careers in which knowledge of and sensitivity to gender issues is relevant.

Career Opportunities

Some students take a women and gender studies minor because they are interested in studying about the types of issues listed above. In addition, some students find that the women and gender studies minor complements their major in helping prepare them for certain professional roles. Examples:

- A science or math/education major who wants to encourage girls to study science and math in elementary and high school.
- A business major who plans to work in personnel and is interested in gender issues in the workplace.
- A criminal justice major who expects to deal with domestic violence.
- A social work major who will work with single parent families or with families who have experienced domestic violence.
- A psychology major who plans to do graduate work and then specialize in counseling women or gays or lesbians.
- An international studies major who will work in a developing country and wants to be aware of women-in-development issues.
- A literature or history or philosophy major who plans to do doctoral work and make gender issues his or her specialty.

Requirements for a Women's Studies Minor

All students take three core courses: WGS 200 Introduction to Gender Studies, WGS 360 Contemporary Feminist Theory, and WGS 400 Senior Project, and complete the total of 21 hours required for the minor by choosing, with the approval of the WGS coordinator, four courses (12 hours) from the following list:

AAA 351 Perspectives on African American Males
ANT 370 Cross-Cultural Perspectives on Gender
BIO 325 Human Sexuality
ENG 436 Women and Literature
HST 312 History of American Women
HST 371 History of Gender, Family, Sexuality
PHI 370 Feminist Philosophy
PSY 315 Psychology of Sex Differences
SOC 381 Class, Race, and Gender
SOC 383 Sociology of Women
SOC 389 Child Abuse and Neglect in America
SS 323 The Family
SS 382 Love, Sex, and Gender
WGS 110 Women in Transition
WGS 324 Introduction to Lesbian and Gay Studies
WGS 380 Special Topics in Women and Gender Studies

Women and Gender Studies

WGS 399 Independent Readings in Women and Gender Studies
WGS/CJ 310 Sexual Orientation and the Law
WGS/CJ 320 Crimes Against Women
WGS/COM 373 Women and Minorities in Film and Television
WGS/LS 370 Women and the Law
WGS/PSY 413 The Psychology of Gender Archetypes
WGS/SPA 460 Spanish Women Authors
WGS/SS 270 Gender and Family in Third World Development

In addition to the courses listed above, other courses that have a significant amount of the course devoted to the study of gender during a particular semester may also be counted toward the minor on an *individual case basis with coordinator approval*. In some cases cross-listed courses in a student's WGS minor may also be used in the student's major. Note, however, the Grand Valley State University policy that a student must have a minimum of 30 credits in the major that are not duplicates of credits in the minor.

Courses of Instruction

AAA 351 Perspectives on African American Males. A critical examination of the socialization, life ways, status, and future of African American males. Historical perspectives, present status, cultural expression and social relationships, empowerment, masculinity, psychosocial development and coping, and future of African American males. Three credits. Offered fall semester.

ANT 370 Cross-cultural Perspectives on Gender. Examines gender as a fundamental organizing theme of culture. Also emphasizes the sociocultural basis for gender differences using a cross-cultural and comparative approach. Discusses how gender relations affect all other aspects of human life. Part of Gender, Society, and Culture theme. Fulfills World Perspectives requirement. Prerequisite: AAA 204 or 206. Three credits. Offered winter semester of odd-numbered years.

BIO 325 Human Sexuality. Introduction to the biological dimensions of human sexuality from physiological, ecological, and evolutionary perspectives. Three credits. Offered winter semester.

ENG 436 Women and Literature. An in-depth study of major women writers and their historical, cultural, and artistic contributions. Significant attention will be given to the writings of minorities. Prerequisites: Completion of foundation courses and one 300-level literature course. Offered in winter semester of even-numbered years.

HST 371 History of Gender, Family, and Sexuality. Explores the history of gender, family, and sexuality in selected modern European and North American countries. Examine how men's and women's roles, the demographics of and ideas about family life, and understandings of sexuality have changed over time. Prerequisite: HST 106 or junior standing. Three credits. offered winter semester of odd-numbered years.

HST 312 History of American Women. Analysis of the political, social, economic, and cultural history of women in American society from the colonial era through the present. Topics include domesticity, suffrage, health, employment, race, war, and feminism. Prerequisites: HST 107, 108 or junior standing. Three credits. Offered winter semester, even-numbered years.

PHI 370 Feminist Philosophy. What do we mean by "feminist philosophy"? The aim of this course is to acquaint students with the various ways in which feminists have replied to this question, both in terms of the tradition of philosophy and in light of the diversity of views held by feminists themselves. Prerequisite: Prior work in philosophy, or permission of instructor. Three credits. Offered winter semester, odd-numbered years.

PSY 315 Psychology of Sex Differences. An investigation of the extent, origin, and consequences of sex differences. First reviews the research on sex differences, then considers the etiology of differences via psychological, biological, primate behavior, cross-cultural and social conditioning perspectives. Three credits. Offered on sufficient demand.

SOC 381 Class, Race, and Gender. Focus is on the social, historical, and cultural meanings of class, race, and gender. Gives students a better understanding of the interrelationship of

Women and Gender Studies

class, race, and gender within the context of family life, schooling, and work. Prerequisite: SOC 201 or 280. Fulfills U.S. Diversity theme. Part of American Mosaic Theme. Three credits. Offered winter semester.

SOC 383 Sociology of Women. Examines the social and cultural construction of gender differences, and sociological theories of gender. Explores both the historical and contemporary status of women. Prerequisite: SOC 201 or permission of instructor. Three credits. Offered fall semester.

SOC 389 Child Abuse and Neglect in America. An examination of the individual, familial, community, and sociocultural causes of child maltreatment in this country. Focus is on the analysis and integration of theory, research, and practice. Three credits. Offered fall and winter semesters.

SS 323 The Family. An examination of the basic concepts of culture and their application, first to the American family and then to the family in other cultures. Fulfills U.S. Diversity theme. Three credits. Offered every semester.

SS 382 Love, Sex, and Gender. Considers the way in which ideas and values are socially constructed and contextually grounded. Focus on the historical, socioeconomic, psychological, and political construction of love, sex, and gender in the United States. A comparative aspect is also provided. Part of Gender, Society, and Culture theme. Prerequisite: Junior standing. Three credits. Offered fall semester.

WGS 110 Women in Transition. Designed for women who are coming to college after having been away from school for several years. Focus on career and life planning, including a self-assessment of interests, strengths, and values. Three credits. Offered once a year. Offered on a credit/no credit basis.

WGS 200 Introduction to Gender Studies. Examines research about gender in personal development, race/ethnicity, class, and sexual orientation through films, readings, and focused studies of the consequences of gender experience in life and learning. Fulfills Social Sciences Foundation. Three credits. Offered fall and winter semesters.

WGS 270 Gender and Family in Third World Development. An examination of how gender and family affect and are affected by third world development, including a consideration of relevant theory, of practice and problems, and of efforts to improve development projects, e.g., in the areas of agriculture, the global economy, and U.S. foreign aid. Three credits. Offered winter semester every other year. Dual listing of SS 270.

WGS 310 Sexual Orientation and the Law. An examination of legal and policy issues relating to sexual orientation including constitutional law, criminal law, family law, and employment law. A multidisciplinary approach, including substantive and procedural legal issues, legal thought, women's and gender studies, and philanthropy. Part of Gender and Identity theme. A dual listing of CJ 310.

WGS 320 Crimes Against Women. An in-depth study of crimes committed almost exclusively against women, including sexual harassment, rape, and certain types of murder. Taught within the framework of feminist theory and research. Part of Gender and Identity theme. Three credits. Offered winter semester. A dual listing of CJ 320.

WGS 324 Introduction to Lesbian and Gay Studies. Introduces the historical background, theoretical and psychological perspectives, literary and artistic expression, biological and health matters, politics, community life, and other issues relevant to the study of gay, lesbian, bisexual, and transgendered life. Three credits. Offered winter semester.

WGS 360 Contemporary Feminist Theory. Focuses on the development of contemporary feminist thought. Feminist theory acknowledges no single orthodoxy. Rather it includes an interdisciplinary examination of liberal, radical, cultural, and socialist feminism. As the world economic systems become increasingly integrated, it becomes important for feminists to think and act globally and locally. Three credits. Offered winter semester of even-numbered years.

WGS/LS 370 Women and the Law. This course is an overview of the American law's treatment of constitutional limitations on sex discrimination in law and efforts to end discrimination; marriage and divorce; relationships outside of marriage; reproductive rights and biological factors impacting on these rights; violence against women; and employment discrimination focusing on gender-based influences. Part of Gender, Society, and Culture Theme. Three credits. Offered winter semester. A dual listing of LS 370.

Writing

WGS 373 Women and Minorities in Film and Television. An examination of American film and television from the perspective of those social groups whose participation in the industry has been restricted both in front of and behind the camera. Offered every other year. Three credits. A dual listing of COM 373.

WGS 380 Special Topics in Women's Studies. Provides an interdisciplinary opportunity for students to pursue advanced study in special topics related to women and women's roles in this and other cultures. Topics vary each term. May be taken more than once when the topic is different. Three credits.

WGS 399 Independent Readings. Independent supervised readings in selected topics. Prerequisite: Permission of program coordinator. One to three credits. Offered fall and winter semesters. Offered on a credit/no credit basis.

WGS 400 Senior Project. A service or career oriented supervised practicum or project designed by student and participating faculty member. Prerequisites: Junior standing or higher, declared WGS minor, and permission of instructor. One to six credits. Offered fall and winter semesters.

WGS 413 The Psychology of Gender Archetypes. Introduces students to the concepts of archetypes in general and gender archetypes in particular. Study will include the psychological, historical, and anthropological manifestations of the archetypes and the underlying theoretical perspectives. Prerequisite: Junior standing or permission of instructor. Three credits. Offered winter semester. A dual listing of PSY 413.

WGS 460 Spanish Women Authors. An in-depth study of Spanish and Spanish American women authors whose literature, across the centuries, has dealt with a particular historical, cultural, social, and philosophical experience. Prerequisite: SPA 330. Three credits. Offered fall semester in odd-numbered years. A dual listing of SPA 460.

Writing

Chair: Gilles. Professor: Frerichs; Associate Professors: Clark, Dwelle, Gilles, Mayberry, Royer; Assistant Professors: Kountz, Schaub, Schendel.

The Department of Writing offers instruction in academic, creative, and professional writing. Academic writing courses, which are designed for all students in the university community, include first-year composition and junior-level writing. For students who choose to major in writing, the department offers emphasis areas in creative and professional writing. The department also offers a minor in writing for students wishing to enhance their writing abilities for personal or professional reasons.

Academic writing, creative writing, and professional writing all belong to the liberal arts. As disciplines, they seek to sensitize student writers to the values and practices of particular genres of writing. The overall goal is to develop in students the ability to write well in a variety of contexts. Students develop this ability by reading and analyzing models and by drafting and revising original work in a workshop setting. Academic writing explores the art of writing well in specific disciplinary contexts. Creative writing explores the art of writing literary fiction, poetry, drama, and nonfiction. Professional writing explores the art of writing nonfiction and workplace writing.

Academic Writing Program

All Grand Valley students, regardless of major, must satisfy both the freshman and junior-level writing requirements (see "Basic Skills Requirements" under "General Academic Policies" in this catalog for more information on university writing requirements). First-year composition courses focus on developing student fluency and skill, with special attention given to general forms of writing common in many

Writing

academic settings. WRT 150 students draw on personal experience and opinions, use library resources, conduct research, integrate sources into their writing, and become familiar with the GVSU Writing Center as an important campus resource. Students who want additional work on the basics of college writing, or who simply wish to build their confidence in writing before tackling WRT 150, may take WRT 098, a course focusing on writing clearly, confidently, and correctly.

Students reaching the junior level (55–80 credits) demonstrate their developing writing abilities to faculty in their academic school or division. Students who need or want additional work on their writing take WRT 305, a course designed to build general writing abilities and to help students develop expertise in the writing forms and styles specific to their academic and career interests.

Creative Writing Program

Creative writing students learn to create original works of poetry, drama, fiction, and nonfiction. Writing majors in the creative writing track learn to recognize and describe various poetic and prose forms, to analyze the creative work of others, including both professional writers and fellow students, and to reflect on their own developing personal aesthetic. Creative writing students also develop their editing and professional writing abilities in coursework and extracurricular activities.

This emphasis is designed for students seeking to develop their creative writing abilities with a desire to pursue graduate education, to enhance a love and appreciation of literature, to write independently, or to improve their writing skills for any career in which writing may play a part. Many students combine their study of creative writing with a minor in another academic area, such as Art, English, History, Liberal Studies, Philosophy, or Theater. Creative writing students typically find careers as teachers, editors, grant writers, program administrators, freelance journalists, or authors.

Professional Writing Program

Professional writing students are taught to generate a wide range of nonfiction prose appropriate for a wide range of rhetorical situations. Writing majors in the professional writing track gain practice in literary writing, persuasive writing, and informational writing. Students become sophisticated analysts of communication situations and self-reflective about their own rhetorical skills. By graduation, professional writing students will feel confident writing and designing pamphlets, newsletters, magazines, Web pages, presentations, and a variety of other forms and genres.

This emphasis is designed for students seeking careers in writing, publishing, or other fields in which specialized skills in written communication are required. Many students combine the professional writing emphasis with a minor in a professional area such as Advertising and Public Relations, Business, Computer Science, English, Information Systems, or International Relations. Students are encouraged to create a major-minor combination that suits their own interests and career plans. Graduates typically find careers as editors, grant writers, program administrators, technical writers, freelance writers, teachers, and authors.

Requirements for the Writing Major

All Writing majors will earn the B.A degree, which requires third-semester proficiency in a foreign language. Writing majors must complete the core courses

Writing

listed below and the capstone, WRT 495, and choose an emphasis within the major. The Writing major totals 42 credits.

Core Requirements for All Majors (12 credits):

WRT 200 Introduction to Professional Writing
WRT 210 Writing with Style
WRT 219 Introduction to Creative Writing
ENG 226 American Literature II

Creative Writing Track Requirements (27 credits):

Literature (9 cr.):

Any three 200-level literature (ENG) courses

Intermediate Workshops (six credits—any two genres):

WRT 320 Intermediate Poetry Workshop
WRT 330 Intermediate Fiction Workshop
WRT 340 Intermediate Drama Workshop

Genre Studies (six credits—same two genres as above):

ENG 320 Studies in Poetry
ENG 330 Studies in Fiction
ENG 340 Studies in Drama

Advanced Workshops (six credits—same two genres as above):

WRT 420 Advanced Poetry Workshop
WRT 430 Advanced Fiction Workshop
WRT 440 Advanced Drama Workshop

Professional Writing Track Requirements (27 credits):

Rhetoric and Design (six credits):

COM 203 Argument and Analysis
ART 107 Reproduction Processes

Creative Writing Elective (three credits):

WRT 320 or 330 or 340

Professional Writing (nine credits):

WRT 350 Writing in the Workplace
WRT 351 Writing for the World Wide Web
WRT 352 Advanced Composition

Professional Emphasis (nine credits):

English (ENG 225, ENG 261, ENG 313)
or Journalism (CJR 236, CJR 256, CJR 270)
or Public Relations (CAP 220 and 321, CJR 256)

Capstone Requirement for All Majors (three credits):

WRT 495 Genre and Writing

Writing Minor

The minor in writing is designed to serve students in a wide variety of disciplines, such as computer science, business, math, nursing, and engineering, by giving them the opportunity to develop personal and workplace writing skills and greater rhetorical sensitivity. The minor requires 18 credits; the range of courses offered encourages students to tailor a program that augments their professional needs and personal talents as writers.

Core Requirements (nine credits):

Writing

WRT 200 Introduction to Professional Writing
WRT 219 Creative Writing Workshop
ENG 320 Studies in Poetry
 or ENG 330 Studies in Fiction
 or ENG 340 Studies in Drama
 or ENG 360 Studies in Nonfiction

Writing Electives (nine credits—choose any three courses):

WRT 350 Writing in the Workplace
WRT 351 Writing for the World Wide Web
WRT 352 Advanced Composition
WRT 320 Intermediate Poetry Workshop
WRT 330 Intermediate Fiction Workshop
WRT 340 Intermediate Drama Workshop

Extracurricular Activities

The writing department offers a rich community of writers and readers, including students, faculty, local professionals, and regional and national authors. For students, this community begins to take shape in the introductory courses and extends beyond the department itself to the Department of English, the School of Communications, and the university community as a whole. Beyond their courses, students have a number of opportunities to participate in the writing community on campus.

Italics: A Student Journal of Art and Writing. The literary arts magazine publishes creative work of students twice yearly and is edited by students under the tutelage of a faculty adviser.

Oldenburg Writing Contest. An annual writing contest, cosponsored with the English department, carrying cash prizes for essays and creative writing in various categories.

Just Desserts. A public series of evening readings of promising student work from intermediate and advanced writing courses. Works include drama, fiction, nonfiction, and poetry.

Grand Valley Writers Series. This annual series brings both regionally and nationally known writers to campus for public readings, class visits, and other appearances.

Grand Valley Writers Festival. A one-day spring workshop for area high school students that offers small-group sessions on fiction writing, article writing, poetry writing, Web writing, playwriting, and memoir writing. Workshops are conducted by GVSU faculty and local writers, with assistance by current writing students.

Courses of Instruction

WRT 098 Writing with a Purpose. Students draft essays to develop fluency, voice, purpose, and structure. They also learn revision and editing skills. Students work one hour per week with a peer consultant from the Writing Center. Four (non-graduation) credits. Offered fall and winter semesters.

WRT 150 Strategies in Writing. Students practice a variety of rhetorical forms and develop structure, style, and voice. They invent, plan, draft, revise, and edit, formulate and support arguments, and incorporate sources. Students work regularly in the Writing Center and in a computer classroom. Students must receive a grade of C (not C-) or better to fulfill this part of the University Writing Requirement. WRT 150 is a prerequisite for any SWS course. Four credits. Offered fall and winter semesters.

Writing

WRT 180 Topics in Composition. Topics will be announced in the class schedule and prerequisites may be listed. May be repeated for credit. Three credits.

WRT 200 Introduction to Professional Writing. Situation-based writing assignments and related readings introduce students to business writing, media writing, and technical writing. Typical assignments include business correspondence, reports, reviews, reportage, feature articles, user instructions, brochures, and technical documentation. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

WRT 210 Writing with Style. Close study of the rhetorical dimension of diction, sentence structure, rhythm, coherence, paragraphing, figures of speech, and whole compositions in various genres. Prerequisite: Fulfillment of the Freshman Writing Requirement. Three credits. Offered fall semester.

WRT 219 Introduction to Creative Writing. Introduction to the theory and practice of various forms of creative writing. Students write poetry, fiction, and drama and also read literature in each genre. Prerequisite: Fulfillment of the Freshman Writing Requirement and completion of at least one literature course. Three credits. Offered fall and winter semesters.

WRT 305 Writing in the Disciplines. Designed to enable students to sharpen their writing skills and begin exploring writing form and styles specific to their academic interests. Sections listed by academic area in the class schedule. Students must receive a grade of C (not C-) or better. Three credits.

WRT 306 Seminar for Writing Tutors. A workshop for tutors employed by the GVSU Writing Center. Covers topics related to the process of individualized tutoring of students for improvement of writing skills. Prerequisite: Fulfillment of the Freshman Writing Requirement and current employment by the Writing Center. One credit. May be repeated one time for credit. Offered each semester.

WRT 320 Intermediate Poetry Workshop. Theory and practice of the genre of poetry. Students will read literature in the genre of poetry and then write poetry. There will be some discussion of current publication markets; periodically, guest writers will give public readings and visit class. Prerequisite: WRT 219. Three credits. Offered fall semester.

WRT 330 Intermediate Fiction Workshop. Theory and practice of the genre of fiction. Students will read literature in the genre of fiction and then write fiction. There will be some discussion of current publication markets; periodically, guest writers will give public readings and visit class. Prerequisite: WRT 219. Three credits. Offered fall and winter semesters.

WRT 340 Intermediate Drama Workshop. Theory and practice of playwriting. Students will read and write scenes and short plays. Some discussion of markets for production. Prerequisite: WRT 219. Three credits. Offered fall semester.

WRT 350 Writing in the Workplace. Training in communication skills for business and the professions. Assignments cover varieties of information management, including handling research, gathering data, writing reports, manuals, directions, and correspondence, and making oral presentations. Prerequisite: Completion of the Freshman Writing Requirement. Three credits. Offered fall and winter semesters.

WRT 351 Writing for the World Wide Web. Emphasizes learning rhetorical structures best suited for writing in the nonlinear Web environment and on exploring the cultural impact Web-related discourse has had on bridging technology and the arts. Students practice professional writing as they learn to build Web documents for community and commercial Internet audiences. Prerequisite: Completion of the Freshman Writing Requirement. Three credits. Offered fall semester.

WRT 352 Advanced Composition. Designed for those students who want an advanced writing course for their majors, for preprofessional programs, or for entry to careers. Expository and persuasive writing is emphasized. Prerequisite: Completion of the Freshman Writing Requirement and WRT 200 or consent of instructor. Three credits. Offered winter semester.

WRT 380 Topics in Writing. Topics will be announced in the class schedule and prerequisites may be listed. May be repeated for credit. Three credits.

WRT 399 Independent Studies. Before registration, the student must arrange for supervision by a faculty member and submit a contract (available in the Writing office) specifying the scope of the proposed study. No more than three credits in WRT 399 may be applied to

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the major or minor. Prerequisite: Fulfillment of the Freshman Writing Requirement. One to four credits. Offered fall and winter semesters.

WRT 420 Advanced Poetry Workshop. Advanced theory and practice of the genre of poetry. Students will read literature, work on a writing project, and discuss current publication markets and manuscript arrangement. Periodically, guest writers will give public readings and visit class. Prerequisite: WRT 320. Three credits. Offered winter semester.

WRT 430 Advanced Fiction Workshop. Advanced theory and practice of the genre of fiction. Students will read literature, work on a writing project, and discuss current publication markets and manuscript arrangement. Periodically, guest writers will give public readings and visit class. Prerequisite: WRT 330. Three credits. Offered fall and winter semesters.

WRT 440 Advanced Drama Workshop. Advanced theory and practice of playwriting. Students will read a broad range of contemporary scripts and write a full-length play. Discussion of how to get work produced. Prerequisite: WRT 340. Three credits. Offered winter semester.

WRT 490 Internship. A supervised work experience in an area of a student's potential career interest. Initiated by the student, who plans the work experience with the advisor, the faculty sponsor chosen to supervise the internship, and the supervisor at the work site. As a rough guide, the student should expect to spend 45 hours per semester in the internship and supporting academic work for each credit awarded. Credit is awarded only when the student, the faculty sponsor, and the work supervisor have completed evaluations of the internship. One to three credits. Offered every semester.

WRT 495 Genre and Writing (Capstone). Capstone course required of all Writing majors. Explores the historical and ideological boundaries that define conventional writing genres: poetry and prose; fiction and nonfiction; literary fiction and genre fiction; academic writing and professional writing; text and hypertext; and so on. The course will consider disciplinary and professional influences on genre definition as well as various ethnic, gender, and economic conceptualizations of genre. Prerequisites: Writing core courses and senior standing. Three credits. Offered winter semester.

Continuing Education

Grand Valley State University believes that learning is a lifelong process that should be accessible to anyone regardless of age, work schedule, or family responsibilities. The Continuing Education division provides programs to meet the specific needs of the region and welcomes suggestions from interested individuals and organizations.

A schedule of several hundred undergraduate and graduate courses and on-site student services are provided at the university's facilities on the Grand Rapids campus, at the Muskegon Center for Higher Education at Muskegon Community College, at the University Center in Traverse City, at the Meijer Campus in Holland, and at the main campus in Allendale. To facilitate students' return to college, Grand Valley provides registration for courses under a nondegree-seeking status. Students may earn both graduate and undergraduate credits before applying for degree-seeking status.

Advisors are available to help you plan your studies in all of the programs offered through the Grand Rapids, Muskegon, Holland, Traverse City, or Allendale campuses. In Grand Rapids, you can arrange appointments with an advisor at a mutually convenient time by calling (616) 336-7220. Students wishing to make an appointment with an advisor in our Muskegon office should call (231) 777-0505. Those wishing to meet with an advisor in Holland should telephone our Meijer Campus in Holland at (616) 394-4848. Students seeking advising in Traverse City

Continuing Education

should call (231) 995-1785 or 1-888-922-1785 for long distance calls. Students outside the local areas can call 1-800-253-7891. In Petoskey, the university maintains an office on the campus of North Central Michigan College. Students in the Petoskey area may call (231) 439-6221 or 1-888-922-1785 to request information about courses and programs.

Programs

Graduate programs on the Grand Rapids campus include business administration, communications, computer information systems, criminal justice, education, engineering, nursing, physician assistant studies, public administration, social work, and taxation. In addition, the university offers bachelor's degree completion programs (upper-division courses) in business (accounting, general business, finance, management, and marketing), criminal justice, education, engineering, English, history, legal studies, nursing, public administration, and social work. Housing is available to students on the Grand Rapids campus in Secchia Hall.

At the Muskegon Center, located at the Muskegon Center for Higher Education at Muskegon Community College, the university offers graduate degrees in business administration, education, public administration, and social work. Undergraduate degree programs include business administration, criminal justice, nursing, and social studies/elementary education.

At the Meijer campus in Holland, the university offers graduate degrees in business administration and public administration. Selected graduate courses in education are also offered. Students in Holland can earn undergraduate degrees in business administration, criminal justice, elementary education/language arts, nursing, and sociology.

Degree programs are also offered in Traverse City at the University Center. Students can earn master's degrees in education and social work. At the undergraduate level, degrees are available in language arts/elementary education, liberal studies, and social studies/elementary education. In Petoskey, the university has graduate offerings in communications and education.

The Division of Continuing Education is committed to providing educational opportunities for adults and establishing academic programs to meet the specific needs of the community.

Distance Education

The University offers a variety of distance education opportunities designed to help students overcome barriers of location and/or time constraints. The delivery systems include various combinations of two-way interactive television, satellite telecommunications systems, videocassettes, printed materials, audio communications, and computer communications. Learners may benefit from distance education services by not having to travel to main university campuses to complete course requirements, and/or by arranging learning schedules that meet their individual needs. Two primary technologies offered are two-way interactive television (compressed video) courses and videocassette-based telecourses.

Interactive Television Courses

Interactive television courses allow learners in two or more locations to see and hear one another on a closed-circuit television system in which the signal is carried over long-distance telephone lines. Courses may originate in any of Grand Valley's

Continuing Education

seven ITV facilities located in Allendale, Grand Rapids, and Holland. This system allows the university to offer a wider selection of courses and degree programs to students in such locations as Traverse City, Muskegon, and Petoskey. Learners in two or more sites can interact with the instructor and with each other. Using GVSU's multi-site conferencing bridge, students are able to both see and hear all other participants, because both video and audio signals are sent and received by all sites.

This system is often combined with other distance learning and communications media such as computer communications (e-mail and Web pages), telephone, and videocassette.

Grand Valley's video conferencing facilities are also used by corporations and other educational institutions for training, national or statewide meetings, workshops, and seminars. Please direct questions to the Distance Education Office at (616) 771-6616.

Videocassette-based Telecourses

The university also offers a schedule of videotaped telecourses. They include high-quality videotaped presentations, related reading assignments, faculty-led class discussions (sometimes conducted via the two-way interactive television system), and typical course completion requirements such as exams and/or course projects. Faculty and students maintain contact through the semester by using a variety of communications technologies, including telephones, traditional mail, and e-mail. Students may view the videotapes by watching a broadcast television or cable television channel or by arranging for the videotapes to be provided directly to them for playback on a home VCR. GVSU telecourses are broadcast on WGJU/WGVK-TV and area cable systems. Several library sites also host copies of the tapes. The Distance Education Office helps coordinate telecourses and is available to answer questions. Telephone: (616) 771-6616.

Noncredit Services

The Division of Continuing Education also sponsors selected noncredit activity to serve the business and professional communities as well as individuals in west Michigan. These include providing training to businesses and other organizations. The Division sponsors noncredit seminars in response to expressions of interest from the community. Information about noncredit services and seminars can be found on the Division's Web page or by calling (616) 336-7180.

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Glossary of Terms

Academic advisor: A faculty member or student trained to help students select courses and plan programs.

Academic dismissal/suspension: Dismissal or suspension from a college or program for not maintaining the required grade point average (GPA).

Advanced placement: Eligibility to enroll in courses beyond the entry level through transfer credit or examination.

Auditing: Registering for and attending class(es) regularly without being held responsible for the work required for credit. (No credit hours are earned and full tuition must be paid. The grade "AU" appears on the record.)

Bachelor's degree: A degree granted after completing at least four years of full-time academic study beyond the completion of high school and fulfillment of graduation requirements.

Board: A term used for the meal plan (i.e., room and board) at a college or university.

Capstone course: A senior-level course within each undergraduate major. Normally it is among the last courses taken for degree completion.

Class standing: A classification based on the number of credit hours earned to classify a student at the freshman, sophomore, junior, or senior level. One's classification, e.g., freshman, sophomore, junior, or senior.

Cognate: A course related to the courses in a major program or to a degree requirement.

Concluding period: A period at the end of a semester when final examinations are given.

Concurrent Enrollment: A term describing a student who is attending two higher education institutions simultaneously (e.g., GVSU and GRCC or MCC).

Co-requisite: A requirement, usually another course, that must be undertaken at the same time.

Credit/No Credit: A method used to evaluate performance in courses, separate from the grade point system.

Credit hour: A unit of academic credit measured in semester hours or quarter hours. One credit hour usually represents one hour of class time per week.

Credit load: The total number of credits for which a student registers during a semester or session.

Deadline: The date by which certain information must be received by any given office or unit. (Current deadline dates are printed in the class schedule.)

Deans' List: A public announcement at the end of each semester listing students who have achieved a specified grade point average (GPA) or level of achievement established by the dean of the unit.

Degree analysis: A report showing the requirement for a specific degree. The report also details the student's progress toward the degree. An analysis is mailed to each undergraduate student in February and October of each year.

Degree student: A student who has been admitted to a degree category and is seeking a bachelor's or master's degree in a planned course of study.

Glossary of Terms

Drop and add: The process of making certain changes (dropping and adding classes) in a student's schedule of courses during the first five class days of the semester. Adding courses is possible only in this five-day period. See the class schedule for deadlines to drop courses.

Dual credit: An option applying to courses that may be taken for either graduate or undergraduate credit provided the student obtains special permission.

Elective: A course that will count as a general credit toward a degree but is not a specific program requirement.

Emphasis: A designated group of courses within a major program.

Encumbrance: A hold placed on a student's record as a result of an unfulfilled monetary obligation to the university or of a disciplinary action by the university.

Full-time student: An undergraduate student taking 12 or more hours each semester, or a graduate student taking nine or more hours each semester. Undergraduates who are planning to complete a bachelor's degree in four years need to average 15 hours per semester.

General education requirements: A defined selection of courses from all divisions of the University, making up the liberal arts base of each baccalaureate degree. The General Education Program is a required component of each bachelor's degree.

Good standing: A designation that signifies that a student is eligible to continue, to return, or to transfer elsewhere. It implies good academic standing.

Grade point average (GPA): A student's scholastic average, computed by dividing total quality points by quality hours attempted.

Graduation audit: Degree-seeking undergraduates receive an audit of course requirements for graduation twice each year.

Grant: Financial assistance that is awarded to students and does not have to be repaid; usually based on need.

Guest student: A degree student from another college or university who is taking courses at Grand Valley for one semester. The credits earned are usually transferred back to the student's home institution.

High School Scholars Program: Concurrent enrollment in high school and college or university courses.

Honors: Designation indicated on the university degree and transcript to reflect outstanding scholarship.

Honors courses: Special courses offered by the GVSU Honors Program designed to offer intellectual challenge and personal attention to particularly able students.

Incomplete: The grade "I," sometimes granted when a student is temporarily unable to complete course requirements because of unusual circumstances.

Independent study: A course of study undertaken by a student under the supervision of one or more faculty members outside the classroom.

Interdisciplinary: Designating a combination of subject matter from two or more disciplines within a course or program.

Internship: Work in a firm or agency related to a student's major program and/or career plans. Involves earning university credit and may involve receiving payment.

Glossary of Terms

Loan: Financial assistance to students that must be repaid. Low-interest loans are available and financial need may or may not be a factor.

Major: A concentration of related courses generally consisting of 30 to 50 semester hours of credit.

Master's degree: A degree granted upon the completion of at least one year of graduate-level work beyond the bachelor's degree.

Michigan residence requirements: The requirements for identifying or establishing permanent residency in Michigan for tuition assessment purposes.

Minor: A concentration of courses generally consisting of a minimum of 20 semester hours of credit.

Nondegree student: A student who has been admitted to a nondegree category (sometimes referred to as a continuing education student) and is not currently seeking a bachelor's or master's degree.

Part-time student: An undergraduate student who takes fewer than 12 hours during a semester or a graduate student who takes fewer than nine hours during a semester.

Portfolio: A collection of work (e.g., paintings, writings, etc.) that may be used to demonstrate competency in an academic area.

Prerequisite: A requirement, usually the completion of another course, that must be met before a student may register for a course.

Quality point: The numerical value given to letter grades. An "A" is equivalent to 4 points per semester hour, a "B" to 3 points, a "C" to 2 points, a "D" to 1 point, and an "F" to 0 points.

Readmission: An admission procedure followed by a student who was previously enrolled at Grand Valley and then dismissed.

Re-entry: An enrollment procedure followed by a student who was previously enrolled in good standing at Grand Valley but whose attendance was interrupted for two consecutive semesters, including the summer session.

Registration: The process of signing up and paying tuition and fees for courses each semester.

Residence requirement: The requirement that the final 30 semester hours of course work before the bachelor's degree be completed at Grand Valley.

Scholarship: Financial assistance to students awarded on the basis of academic achievement. Financial need may or may not be a factor.

Semester: A unit of time, 15 weeks long, in the academic calendar.

Semester hour: The unit of academic credit, usually meaning the pursuit of a subject for one period a week for one semester.

Senior institution: An institution of higher education offering baccalaureate programs. Grand Valley is a public senior institution.

Student employment: Part-time jobs made available to students with financial need through federally funded programs (Work-Study) and to students without need through the Student Employment Office.

Teachable major: A state-approved major program for teacher certification at the secondary and/or elementary level.

Glossary of Terms

Telecourse: A course offered for credit on WGVU/WGVK-TV, Channels 35 and 52.

Time limit: The length of time within which a graduate degree must be completed. At Grand Valley the time limit is eight years.

Touch-Tone: A method of registration, drop/add, or tuition payment that uses the automated voice response machine. This method normally eliminates the need for a student to appear in person at a registration event.

Transcript: A copy of a student's permanent academic record at a particular institution. This term is also used to identify the financial aid form that indicates the amount and type of financial aid a student received from a college or university.

Transfer credit: Credit earned at another accredited institution and accepted toward a Grand Valley degree.

Tuition: The amount of money that must be paid for courses based on the number of credits for which one registers.

Upper division: Classification of students or courses beyond the second year.

Withdrawal: Withdrawal from a course or the university. The grade assigned will depend upon the time in the semester in which the student withdrew.

Writing skills requirement: A requirement that a student demonstrate proficiency in writing skills by examination and/or by successfully completing the appropriate course.

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- Aboufadel, Edward F** (1995), Associate Professor of Mathematics and Statistics. B.S., Michigan State University; Ph.D., Rutgers University.
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- Adams, Allison R.** (1998), Assistant Professor of Hospitality and Tourism Management. B.S., M.B.A., Central Michigan University.
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Jeffrey Quinn, Assistant Football Coach. B.A., Elmhurst College; M.A., DePauw University.
Deanne Scanlon, Head Women's Volleyball Coach. B.S., Eastern Kentucky University.
Marc Scharphorn, Assistant Director of Athletics. B.S., Grand Valley State University.
Terry J. Smith, Head Men's Basketball Coach. B.S., Michigan State University; M.A., Central Michigan University.
Lori Stinson, Head Women's Golf Coach. B.S., Indiana University.
Michael Stodola, Fieldhouse Building Manager. B.S., Ferris State College.
Lisa Sweany, Assistant Director of Athletics. B.S., Tri-State University; M.S., Ball State University.
Julie Vunovich, Assistant Athletic Trainer. B.A., M.A., Western Michigan University.
James Williams, Assistant Football Coach. B.A., William Tyndale College.
Douglas Woods, Head Women's Softball Coach. B.S., University of Toledo; M.Ed., Grand Valley State University.

Directory

Human Resources

D. Scott Richardson, Assistant Vice President for Human Resources. B.S., M.S.A., Central Michigan University.

Sue Lindrup, Employment Representative. B.B.A., Grand Valley State University.

Stephanie Matthews, Human Resources Representative. B.S., Western Michigan University.

Coni Sullivan, Director of Staff Relations. B.A., Michigan State University; J.D., Wayne State University.

Mary Warner, Benefits Manager. B.A., Spring Arbor College.

Linda Yuhás, Employment and Compensation Manager. B.A., Indiana University; M.P.A., Grand Valley State University.

Facilities

Terrance Feravich, Assistant Vice President for Facilities Services and Planning. B.A., M.B.A., Grand Valley State University; B.S., Illinois Institute of Technology.

Robert Brown, Assistant Director of Facilities Planning. B.Architecture, University of Miami.

David Cox, Safety Manager. B.S., Grand Valley State University.

David Feenstra, Assistant Maintenance Supervisor.

James Flanders, Project Manager. B.S., Ferris State University.

Barbara Kelley, Assistant Director of Public Safety Services. B.S., Wayne State University.

Steven Leeser, Plant Services Supervisor. B.M.E., University of Michigan; M.M.E., Michigan State University; M.S., Central Michigan University.

William Lucksted, Plant Services Supervisor. B.S., Grand Valley State University.

Madonna Markus, Manager of Facilities Budgets and Special Projects. B.S., Grand Valley State University.

James Moyer, Director of Facilities Planning. B.A., Howard University.

Terry Pahl, Plant Engineer. B.S., Western Michigan University and Calvin College.

John C. Scherff, Maintenance Supervisor.

Steven Snell, Arborist. B.S., Michigan State University.

Kenneth Stanton, Plant Services Supervisor. B.A., Spring Arbor College.

Timothy Thimmesch, Director of Plant Services. B.S., Kansas Newman College.

Raymond VandenBerg, Project Manager.

Ronald Villanueva, Plant Services Supervisor, B.B.A., Grand Valley State University.

Allen D. Wygant, Director of Public Safety Services.

Golf

Terry Sack, General Manager, Meadows Golf Club. B.S., Ferris State College; M.B.A., Grand Valley State University.

Ronald Dahlin, Gold Course Superintendent. B.S., M.S., Colorado State University.

Donald Underwood, Golf Professional. B.S., Ferris State University; P.G.A. Class "A" certification.

Directory

Operations — Pew Campus

John Bowers, Director of Operations. B.A., Davenport College.

Lisa Haynes, Assistant Director of Operations. B.S., Grand Valley State University.

Lynn Krupansky, Business Operations Coordinator.

Page Neve, Manager of Security and Public Safety.

Timothy Peraino, Secchia Hall Manager. B.A., Alma College; M.S., Indiana University.

Joseph Pugh, Night Security Supervisor.

Kathleen Roberts, Client Services Manager. B.A., Aquinas College.

David VanderSloot, Director of Conference Planning and Hospitality Services. B.S., Johnson and Wales University Charleston.

Cynthia Winowiecki, Client Services Manager.

Campus Security

Campus Security Information—Grand Valley State

Grand Valley State University, a community of approximately 19,000 people, consists of a 1,000-acre campus in Allendale, a 28.74-acre campus in downtown Grand Rapids, a 20-acre campus in Holland, and approximately one acre of waterfront property in Muskegon. The campuses are considered to be safe. They are, however, subject to many of the same problems that occur in the surrounding communities. Grand Valley's crime rate is very low in comparison to the national average, as well as to other state universities.

Grand Valley is concerned about the well being of everyone on its campus and has prepared this information to increase your awareness of the current programs that exist for your protection.

The university employs a professionally trained, certified police force. We also encourage students to take responsibility for their own belongings and safety.

Crime Rates and Statistics

In compliance with the Student Right-to-Know and Campus Security Act of 1990, Grand Valley State University annually provides information on security procedures and crime statistics to all its employees and enrolled students.

The university Department of Public Safety reports all incidents to the Uniform Crime Reporting program. The department makes reasonable efforts to monitor and record, through local police agencies, criminal activity of students at off-campus locations of student organizations recognized by the university. This includes student organizations with off-campus housing facilities. Crime statistics for the most recent three-year period are shown below. The crime rate is calculated by dividing the total number of students enrolled in the fall semester by the number of incidents reported.

Allendale Campus Statistics

16,751 Students	1998		Crime Rate
	Incidents Reported	Arrests	
Murder	0	0	
Manslaughter	0	0	
Sex Offense—Forcible	2	1	.0001
Sex Offense—Nonforcible	0	0	
Robbery	0	0	
Aggravated Assault	1	0	.0001
Arson	0	0	
Burglary	9	3	.0005
Larceny	107	49	.0064
Motor Vehicle Theft	0	0	
Liquor Law Incidents*	106	243	.0063
Drug Abuse Incidents	15	16	.0009
Weapon Possessions	1	1	.0001
Total Incidents	241		
Total Arrests		313	

17,452 Students	1999		Crime Rate
	Incidents Reported	Arrests	
Murder	0	0	
Manslaughter	0	0	
Sex Offense—Forcible	3	0	.0002
Sex Offense—Nonforcible	0	0	

*Three additional referrals of Liquor Law violations were submitted for judicial referral without prosecution.

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Robbery	0	0	
Aggravated Assault	9	2	.0005
Arson	0	0	
Burglary	9	0	.0005
Larceny	93	25	.0053
Motor Vehicle Theft	2	2	.0001
Liquor Law Incidents**	93	198	.0053
Drug Abuse Incidents	12	10	.0007
Weapon Possessions	1	1	.0001
Total Incidents	222		
Total Arrests		238	
<hr/> 2000 <hr/>			
18,579	Incidents		Crime
Students	Reported	Arrests	Rate
Murder	0	0	
Manslaughter	0	0	
Sex Offense—Forcible	2	0	.0001
Sex Offense—Nonforcible	0	0	
Robbery	0	0	
Aggravated Assault	1	0	.0001
Arson	0	0	
Burglary	7	0	.0004
Larceny	88	12	.0047
Motor Vehicle Theft	2	1	.0001
Liquor Law Incidents†	99	223	.0053
Drug Abuse Incidents‡	27	32	.0015
Weapon Possessions	1	1	.0001
Total Incidents	226		
Total Arrests		269	
<hr/> Grand Rapids Campus Statistics—1998 <hr/>			
4,019	Incidents		Crime
Students	Reported	Arrests	Rate
Murder			
Manslaughter			
Sex Offense—Forcible			
Sex Offense—Nonforcible			
Robbery	2	1	.0005
Aggravated Assault			
Arson			
Burglary			
Larceny	5	0	.0001
Motor Vehicle Theft			
Liquor Law Incidents			
Drug Abuse Incidents	2	2	.0005
Weapon Possessions			
Total Incidents	8		
Total Arrests		3	
<hr/> 1999 <hr/>			

**One additional referral of Liquor Law violations were submitted for judicial referral without prosecution.

†Two additional referrals of Liquor Law violations were submitted for judicial referral without prosecution.

‡Five additional referrals of Liquor Law violations were submitted for judicial referral without prosecution.

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4,445 Students	Incidents Reported	Arrests	Crime Rate
Murder			
Manslaughter			
Sex Offense—Forcible			
Sex Offense—Nonforcible			
Robbery			
Aggravated Assault	1	1	.0002
Arson			
Burglary			
Larceny	10	0	.0022
Motor Vehicle Theft			
Liquor Law Incidents			
Drug Abuse Incidents			
Weapon Possessions			
Total Incidents	11		
Total Arrests		1	
2000			
6,055 Students	Incidents Reported	Arrests	Crime Rate
Murder			
Manslaughter			
Sex Offense—Forcible			
Sex Offense—Nonforcible			
Robbery			
Aggravated Assault			
Arson			
Burglary	2	0	.0002
Larceny	18	1	.0030
Motor Vehicle Theft			
Liquor Law Incidents			
Drug Abuse Incidents			
Weapon Possessions			
Total Incidents	20		
Total Arrests		1	
Holland Campus Statistics—1998			
708 Students	Incidents Reported	Arrests	Crime Rate
Murder			
Manslaughter			
Sex Offense—Forcible			
Sex Offense—Nonforcible			
Robbery			
Aggravated Assault			
Arson			
Burglary			
Larceny	1	2	.0014
Motor Vehicle Theft			
Liquor Law Incidents			
Drug Abuse Incidents			
Weapon Possessions			
Total Incidents	1		
Total Arrests		2	

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1999			
934 Students	Incidents Reported	Arrests	Crime Rate
Murder			
Manslaughter			
Sex Offense—Forcible			
Sex Offense—Nonforcible			
Robbery			
Aggravated Assault			
Arson			
Burglary			
Larceny	1	0	.0011
Motor Vehicle Theft			
Liquor Law Incidents			
Drug Abuse Incidents			
Weapon Possessions			
Total Incidents	1		
Total Arrests		0	

2000			
1,077 Students	Incidents Reported	Arrests	Crime Rate
No incidents reported			

Muskegon Campus Statistics—1998			
329 Students	Incidents Reported	Arrests	Crime Rate
Murder			
Manslaughter			
Sex Offense—Forcible			
Sex Offense—Nonforcible			
Robbery			
Aggravated Assault			
Arson			
Burglary			
Larceny	2	0	.0060
Motor Vehicle Theft			
Liquor Law Incidents			
Drug Abuse Incidents			
Weapon Possessions			
Total Incidents	2		
Total Arrests		0	

1999			
425 Students	Incidents Reported	Arrests	Crime Rate
No incidents reported			

2000			
432 Students	Incidents Reported	Arrests	Crime Rate
Murder			
Manslaughter			
Sex Offense—Forcible			

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Sex Offense—Nonforcible			
Robbery			
Aggravated Assault			
Arson			
Burglary			
Larceny	7	0	.0162
Motor Vehicle Theft			
Liquor Law Incidents	1	1	.0023
Drug Abuse Incidents			
Weapon Possessions			
Total Incidents	8		
Total Arrests		1	

Traverse City Campus Statistics—1999			
194 Students No incidents reported	Incidents Reported	Arrests	Crime Rate
2000			
223 Students No incidents reported	Incidents Reported	Arrests	Crime Rate

Note: None of the above statistics involved hate crimes (see FBI Definitions of Crime Categories, below).

FBI Definitions of Crime Categories

Murder: The willful (non-negligent) killing of one human being by another.

Negligent Manslaughter: The killing of another person through gross negligence.

Non-negligent Manslaughter: The willful non-negligent killing of a human being by another. As a general rule, any death due to injuries received in a fight, argument, quarrel, assault, or commitment of a crime.

Forcible Sex Offense: Any sexual act directed against another person, forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent due to age and mental impairment.

Nonforcible Sex Offense: Unlawful, nonforcible sexual intercourse consisting of person(s) who are related to each other or who are under statutory age of consent.

Robbery: The taking of money and/or other valuables under the threat of physical harm or force, with or without a threat.

Aggravated Assault: An unlawful attack by a person(s) upon another for the purpose of inflicting severe or aggravated bodily injury.

Arson: Any willful or malicious burning or attempting to burn with or without intent to defraud a dwelling, house, public building, motor vehicle, aircraft, or personal property of another.

Burglary: The breaking and entering, with no personal threat involved and usually no confrontation between burglar and victim.

Larceny: The act of stealing in which neither illegal entry nor the threat or use of force is present.

Motor Vehicle Theft: The theft or attempted theft of a motor vehicle.

Liquor Law Incidents: Prohibits the manufacture, sale, purchase, transportation, possession, or use of alcoholic beverages.

Drug Abuse Incidents: Prohibits the production, distribution and/or use of certain controlled substances and the equipment or devices utilized in their preparation and/or use.

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Weapons Possessions: The violation of laws prohibiting the possession, concealment, and use of a firearm or other deadly weapon.

Hate Crimes: Any of the above crimes that manifest evidence of prejudice based on race, religion, sexual orientation, or ethnicity.

Sexual Assault Procedures

Victims of sexual offenses (forcible or nonforcible) have the option of notifying the proper law enforcement authorities, including campus and local police. They also have the option to be assisted by campus personnel in notifying these law enforcement authorities if they choose to do so.

Options for Victims

Option 1: Victims of sexual offenses should call the emergency 911 phone number as soon as possible. A GVSU police officer will be dispatched to assist the victim and will contact the Counseling Center.

To protect important physical evidence, victims should not shower, bathe, brush their teeth, or change clothing prior to going to the hospital. A change of clothes will be needed to wear home from the hospital. If possible, the student should maintain the scene exactly as it was at the occurrence of the assault.

Evidence necessary for medical and/or forensic evaluation and court testimony can be collected only at the hospital. For physical evidence to be useful, it is best collected within 12–24 hours and not later than five days after the assault. The collection of medical evidence does not presume that charges will be filed against the assailant. Hospital protocol also involves testing for pregnancy and sexually transmitted diseases.

The victim should expect that the following individuals may be notified that an assault has occurred: The Director of Public Safety Services, Public Safety Services personnel, the Dean of Students, and if applicable the Director of Housing. The university Counseling Center will notify the victim about ongoing counseling options, referrals for legal assistance, and other support services that are available through the Counseling Center and/or the YWCA Sexual Assault Center. The university will notify the victim that it will change his/her academic and living situations after an alleged sex offense and of the options for those changes, if the victim requests changes and they are reasonably available.

Option 2: Campus Judicial system. Victims of sexual assaults that occur on university property may file a Judicial Referral with the Coordinator of the University Judiciary.

If the accused student denies the charges and requests a hearing, the victim will be notified of the hearing. The victim may present written evidence to be used at the hearing, may testify at the hearing, and is entitled to a copy of the written decision and sanction.

The accused student and the victim may each have one advisor at the hearing. If the accused student admits the charges, the victim is entitled to a copy of the written sanction. The victim or the accused student may appeal the decision and/or the sanction.

Sanctions for students found responsible through the University Judicial process for committing sex offenses may include one or more of the following: warning; restitution; work assignment/community service; probation; loss of privileges; loss of the right to live in university housing; counseling; denial or revocation of a university honor, scholarship, or degree; suspension; and/or dismissal.

Sexual Assault Programs

Programs dealing with rape, acquaintance rape, and other sex offenses are presented on a regular basis at a variety of student educational activities, including orientation prior to enrollment, on-campus resident programs, and first-year orientation classes. Most of the programs are sponsored by the Counseling Center, the Residential Life Office, or Public Safety Services.

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The GVSU Counseling Center provides counseling for victims of sexual assault. Students are also made aware of counseling and support services in the community for victims of sexual assault.

Safety and Security Services

The primary responsibility for law enforcement on the Allendale campus rests with Grand Valley State University's Department of Public Safety Services (GVSU DPS). The Grand Rapids Police Department serves all Grand Rapids facilities owned or controlled by GVSU.

All GVSU Department of Public Safety Services officers are certified by the Michigan Law Enforcement Officers Training Council and are deputized by the Ottawa County Sheriff's Department. Public Safety officers have full law enforcement authority and responsibilities. They work closely with the Ottawa County Sheriff's Department, Michigan State Police, and other law enforcement agencies.

GVSU employs a fully equipped and trained university police department providing 24-hour police services and assistance. The Department of Public Safety Services maintains limited dispatch services and office hours on the Allendale campus and relies on 24-hour service from Ottawa County Central Dispatch Authority.

The Grand Rapids campus's criminal incidents and emergencies are reported to the Grand Rapids Police Department as well as to Grand Valley's Department of Public Safety Services.

In addition to law enforcement officers, the GVSU DPS employs a number of student security personnel on a part-time basis. Student security personnel provide crowd control, monitor pedestrian crosswalks, direct traffic, and enforce traffic ordinances. Housing student security personnel are responsible for resident building security, enforcing GVSU Housing rules and regulations, and providing general assistance to residents and guests.

Policies and Procedures

Approximately 1,300 faculty and staff and 18,589 students work and study at Grand Valley. More than 3,400 students live in housing on the Allendale Campus. Students and employees have access to campus facilities; however, access to housing facilities is limited to students and their guests (see Housing Handbook). Access to resident housing facilities by university personnel is on an "as needed" basis. Guests are welcome on the university's campuses. Visitors have access to buildings that are open to the public and to those in which events are scheduled.

The GVSU DPS enforces laws concerning alcohol consumption and the use of controlled substances. The unlawful possession, use or distribution of illegal narcotic or hallucinogenic drugs or alcohol by faculty, staff, and students on GVSU property or as a part of a university activity is specifically prohibited by GVSU policy and by state and federal law. GVSU will impose sanctions for violation of the Standards of Conduct consistent with state and federal law (see Student Code).

Any student, faculty, or staff member may report criminal incidents by calling GVSU's Department of Public Safety Services at (616) 895-3255. Medical, police, and fire emergencies can be reported by calling 911. Public Safety officers are dispatched by the Ottawa County Central Dispatch Authority (911), as well as through the Department of Public Safety Services office.

Counseling Services

The GVSU Counseling Center provides individual and group counseling throughout the academic year on such topics as alcohol and substance abuse, rape, personal and relationship concerns, and career planning. More information can be obtained from the Counseling Center or by calling (616) 895-3266.

Security on Campus

The Allendale campus has three residence halls housing approximately 887 students, 14 living centers housing 1,481 students, and the Ravine, Laker Village, and Grand Valley apart-

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ments, which accommodate 1,566 students. Off-campus housing includes Greek houses and private apartment complexes located near the Allendale campus.

Security personnel and other employees are assigned to campus housing facilities. Student employees and full- and part-time staff are trained to provide support services for residents; they are also responsible for the operation of buildings and the enforcement of university regulations.

Student housing entrances are locked from 10 p.m. to 8 a.m. This applies to all living units except the Ravine, Laker Village and Grand Valley apartments, where residents are responsible for locking their own doors. Students living in the residence halls and living centers are allowed to have visitors of the opposite sex during visiting hours, which are 10 a.m. to 2 a.m., Sunday through Thursday, and open visitation in all areas with their roommates' consent on Friday and Saturday. In other housing facilities, residents are allowed open visitation with their roommates' consent.

Special security procedures are in effect during low-occupancy periods. The Ravine, Laker Village, and Grand Valley apartments are the only on-campus facilities that stay open to residents during holiday breaks. (For more information on housing security, refer to the Housing Handbook.)

The Plant Operations Department maintains the university buildings and grounds, with concern for safety and security. All parking lots are illuminated at night, as are all main campus walkways and building entrances. Overnight parking is prohibited except in residence lots. Landscape plantings are arranged and maintained so that building entrances are easily visible from a distance.

Individual Responsibility

A safety program such as the one at GVSU could not reach its highest potential without student cooperation. Students must take responsibility for themselves and their belongings by using common sense and by taking advantage of the programs that are available to them.

The most frequent crimes on campus are larcenies, many of which could be prevented. Do not leave book bags, books, purses, bikes, or other personal effects unattended in the Fieldhouse, residence halls, classrooms, or other unsecured areas.

The information in this brochure is accurate as of the date of printing. This brochure is intended to be informational and is not a guarantee of services. The university reserves the right to modify its programs, services, and levels of staffing.

Phone numbers to call to receive assistance: Police, Fire, Emergency 911 Public Safety Services 895-3255 University Judicial 895-3585 Assault Center (616) 776-7273 Center for Women in Transition (616) 392-2829
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Drug and Alcohol Policy

Philosophy

Consistent with Grand Valley State University's commitment to provide the safest environment for the highest quality education, the University has set forth a policy regarding the use of alcohol and other drugs on all properties and in all facilities owned or operated by GVSU.

The University upholds and enforces local, state, and federal laws and the alcohol and drug policies of all collegiate governing bodies which are responsible for the activities of their GVSU affiliates. Grand Valley State University encourages a campus environment where

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healthy lifestyle choices are made and where the use of alcohol or other drugs will not be permitted to interfere with learning.

The University recognizes the right of legal adults to choose to use or abstain from alcoholic beverages. However, abusive consumption of alcohol is discouraged because it can pose a threat to property and the health and safety of others.

Chemical-free activities are encouraged and programs that lead to informed decision-making are supported. Recognizing that an individual with an alcohol and drug problem may be rehabilitated, Grand Valley State University offers counseling and referral to its faculty, staff, and students.

Standards of Conduct

The unlawful manufacture, possession, use, distribution, or dispensation of illicit drugs and the unlawful possession, use, or distribution of alcohol by faculty, staff, and students on GVSU property or as part of a University activity is specifically prohibited by GVSU policy and by state and federal law.

I. Legal Sanctions and Summary of Laws

Local, state, and federal laws make unlawful manufacture, possession, use, distribution, or dispensation of drugs and alcohol serious crimes. Violations of local, state, or federal law may result in conviction of a misdemeanor and/or felony that can lead to imprisonment, fines, confiscation of real and personal property, and/or assigned community service, or any combination of these penalties. As a general rule, courts do not excuse persons convicted of drug or alcohol abuses from jail to go to college or to get to their jobs. Even more importantly, a record of a felony conviction will prevent an individual from entering many careers. Further, the University may impose sanctions pursuant to its policies.

The following summary covers sections of the Michigan Liquor Control Act, MCLA 436.1 *et seq.*, relating to the possession, consumption, and sale of alcoholic beverages.

Laws and administrative rules governing establishments licensed by the Michigan Liquor Control Commission, as well as sections of the law dealing with licensure, importation, taxation, wholesaling, and manufacture of alcoholic liquor are not included in the summary. Also excluded from this summary are Michigan's drunk driving laws.

It is possible that not all laws relevant to a particular situation are included in this brief summary; therefore, no one should take action in reliance upon it. The summary is intended strictly as an educational tool and should not be construed as legal advice.

A. Alcoholic Liquor Defined

"Alcoholic liquor" means any spirituous, vinous, malt, or fermented liquor, liquids, and compounds, whether or not medicated, proprietary, patented, and by whatever name called, containing *one-half of one percent or more* of alcohol by volume which are fit for use for beverage purposes. In this document, the terms "alcoholic liquor," "alcoholic beverage," and "beverage alcohol" are used interchangeably.

B. Drinking Laws

It is illegal for a person under 21 years of age to *purchase* alcoholic liquor, *consume* alcoholic liquor in a licensed premises, or *possess* alcoholic liquor except in the following circumstances:

1. The law does not prohibit a person less than 21 years old from possessing alcoholic liquor during regular working hours and in the course of his/her employment if employed by an organization possessing a liquor license, by the Liquor Control Commission, or by the Commission's agents if the alcoholic liquor is not possessed for his/her personal consumption.
2. The law does not prohibit the consumption of alcoholic liquor by a person under the age of 21 years who is enrolled in a course offered by an accredited college or university

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in an academic building and under the supervision of a faculty member if the purpose is solely educational and a necessary ingredient of the course.

A person under the age of 21 years who violates this law is liable for misdemeanor penalties. However, these penalties do not include jail.

- a. First offense—a fine of not more than \$100.00. May be ordered to perform community service and undergo substance abuse screening and assessment.
- b. Second offense—a fine of not more than \$200.00. May be ordered to participate in substance abuse prevention or substance abuse treatment and rehabilitation services, to perform community service, and to undergo substance abuse screening and assessment. The person's driver's license will also be suspended for 90–180 days, with a restricted license available after 30 days.
- c. Third and subsequent offense—a fine of not more than \$500.00. May be ordered to participate in substance abuse prevention or substance abuse treatment and rehabilitation services, to perform community service, and to undergo substance abuse screening and assessment. The person's driver's license will also be suspended for 180 days—1 year, with a restricted license available after 60 days.

PBT: A peace officer who has reasonable cause to believe that a person under 21 has consumed alcoholic liquor may require that person to submit to a preliminary breath test (PBT). If the blood alcohol level is .02 or more, there is a presumption that the person has consumed or possessed alcoholic liquor. *A person who refuses to submit to a PBT under these circumstances is responsible for a state civil infraction.*

It is a misdemeanor for a person under 21 years of age to knowingly transport or possess alcoholic liquor *in a motor vehicle*, unless such activities are in connection with the minor's employment pursuant to a liquor license or other authorized agent of the Liquor Control Commission. Following a conviction for violation of this provision, steps may also be taken to impound the vehicle used in the offense. Alcoholic liquor may not lawfully be sold, traded, or otherwise furnished to a person who has not attained the age of 21 years. Knowingly selling or furnishing alcoholic liquor to a person under the age of 21, or failing to make a diligent inquiry as to whether the person is under the age of 21 is a misdemeanor.

C. Fraudulent Identification

A person who furnishes fraudulent identification to a person less than 21 years old or a person under the age of 21 who uses fraudulent identification to purchase alcoholic liquor is guilty of a misdemeanor. In addition to penalties pursuant to the misdemeanor, the driver's license of a person convicted of using fraudulent identification shall be suspended for 90 days.

D. Regulation of Sale Laws

Under Michigan law, the *sale, trade, or giving away* of alcoholic liquor, including alcoholic liquor for personal use, requires a license or other prior written authorization from the Liquor Control Commission. A person who conducts any activity for which a liquor license is required without first obtaining the requisite license is guilty of a felony, punishable by imprisonment for not more than one year, and/or by a fine of not more than \$1,000.

E. Open Container Laws

The consumption of alcoholic liquor on the public highways of Michigan is forbidden by law. It is unlawful to transport or possess any alcoholic liquor in a container which is open, uncapped, or upon which the seal is broken, within the passenger compartment of a motor vehicle on the highways of Michigan.

II. Health Risks Associated with the Use of Illicit Drugs and the Abuse of Alcohol

Health (and other) risks associated with the use of alcohol and other drugs include, but are not limited to: impaired academic or work performance; lost potential; absenteeism from

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class or work; financial problems; doing things one later regrets; conflicts with co-workers, classmates, families, friends, and others; sexual assault and other unplanned sexual relationships; unwanted pregnancies; sexually transmitted diseases; unusual or inappropriate risk-taking which may result in physical or emotional injury, or death; blackouts; hangovers; long-term health problems, including cirrhosis of the liver, organic brain damage, high blood pressure, and heart disease; and legal problems, including imprisonment.

III. Drug and Alcohol Prevention, Counseling and Rehabilitation, and Re-entry Programs

Grand Valley State University is concerned about the effect of alcohol and/or drugs on students, faculty, and staff members, their families, and the University community as a whole. The University recognizes that an individual with an alcohol and/or drug problem may be rehabilitated. GVSU will continue to make efforts to increase the awareness about the dangers of drugs.

GVSU encourages students, faculty, and staff with alcohol or other drug dependency problems to use the services of the University or community counseling centers for assistance. Assistance for students is available through the Office of Alcohol Education located in the Counseling Center and for faculty and staff through the Faculty Staff Assistance Program, administered at a confidential off-campus location by the Employee Assistance Center.

If treatment for drug and/or alcohol dependency is needed, students are encouraged to contact the Office of Alcohol Education (895-3220), and faculty and staff are encouraged to contact the Faculty Staff Assistance Program (EAC) at 458-8540, the Human Resources Office at 895-2215, or their insurance carrier to obtain information concerning coverage.

IV. Sanctions

GVSU will impose sanctions for violation of the Standards of Conduct consistent with state and federal law, and with applicable University policies, collective bargaining agreements, and Faculty and Staff handbooks and the Student Code. Violations will result in disciplinary action, up to and including expulsion, termination of employment, and referral for prosecution. Sanctions imposed will depend upon the severity and frequency of the violation. In addition to, or in lieu of, discipline, violators may be required to complete an appropriate rehabilitation program. All University faculty and staff will abide by this policy as a condition of their employment.

If you have any questions or concerns about the University's Drug and Alcohol Policy, please contact the Human Resources Office or the Dean of Students Office.

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