

1982

## **BGSU 1982-1983 Undergraduate Catalog**

Bowling Green State University

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**Bowling Green State University**

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**1982-83 Undergraduate Catalog**

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Includes course descriptions and information about Firelands College

# 1982-83 Academic Calendar

## Summer Quarter

June 16, 1982 — Wednesday	Classes begin 7:30 a.m.
July 17 — Saturday	First term ends
July 19 — Monday	Second term begins 7:30 a.m.
August 20 — Friday	Summer quarter ends
August 21 — Saturday	Commencement

## Fall Semester

August 30, 1982 — Monday	Classes begin 7:30 a.m.
September 6 — Monday	Labor Day — No classes
November 24 — Wednesday	Thanksgiving recess begins 7:30 a.m.
November 29 — Monday	Classes resume 7:30 a.m.
December 13 — Monday	Examinations begin 7:30 a.m.
December 17 — Friday	Fall semester ends

## Spring Semester

January 10, 1983 — Monday	Classes begin 7:30 a.m.
January 17 — Monday	Martin Luther King Day — No classes
March 26 — Saturday	Spring recess begins at noon
April 4 — Monday	Classes resume 5:30 p.m.
May 2 — Monday	Examinations begin 7:30 a.m.
May 6 — Friday	Spring semester ends
May 7 — Saturday	Commencement

## Summer Session

June 13, 1983 — Monday	Classes begin 7:30 a.m.
July 4 — Monday	Independence Day — No classes
July 15 — Friday	First 5-week term ends
July 18 — Monday	Second 5-week term begins 7:30 a.m.
August 5 — Friday	8-week term ends
August 19 — Friday	Second 5-week term ends
August 20 — Saturday	Commencement

## President

Paul J. Olskamp

## Board of Trustees

	Term expires
Frazier Reams Jr., Toledo	1983
Charles E. Shanklin, Milford Center	1984
Albert E. Dyckes, Columbus	1985
M. Shad Hanna, Bowling Green	1986
Robert C. Lugwig, Marion	1987
William F. Spengler Jr., Toledo	1988
Melvin L. Murray, Fostoria	1989
J. Warren Hall, Cleveland	1990
Ann L. Russell, Milan	1991

## Where to go

Admissions information	110 McFall	372-2086
Adviser, assignment of	Departmental office of major	
Advising, academic		
College offices		
Arts and Sciences	215 Admin. Bldg.	372-2015
Business Administration	371 Bus. Admin. Bldg.	372-2747
Education	444 Educ. Bldg.	372-0151
Health and Community Services	100 Health Center	372-0242
Musical Arts	Musical Arts Bldg.	372-2181
University Division	231 Admin. Bldg.	372-0202
Departmental offices		
Automobile registration	Parking Services, Commons Bldg.	372-2776
BG News	106 University Hall	372-2601
Campus Safety and Security	Commons Bldg.	372-2346
Counseling		
Counseling and Career Development Center	320 Student Services Bldg.	372-2081
Placement Service	360 Student Services Bldg.	372-2356
Psychological Services Center	309 Psychology Bldg.	372-2301
Center for Educational Options	231 Admin. Bldg.	372-0202
Changing majors	College offices	
Drop/add	Registrar, 110 Admin. Bldg.	372-0441
Employment, student	460 Student Services Bldg.	372-0252
Fact Line		372-2445
Fee payments	Bursar, 133 Admin. Bldg.	372-2815
Financial aid	450 Student Services Bldg.	372-2651
Green Sheet	806 Administration Bldg.	372-2616
Health Service	Health Center	372-2271
Housing	440 Student Services Bldg.	372-2011
ID cards	Registrar, 110 Admin. Bldg.	372-0441
Library Information	121 Library	372-2361
Loans	Financial Aid	372-2651
	450 Student Services Bldg.	
Organizations, student	Student Activities	372-2843
	405 Student Services Bldg.	
Registering for classes	Registrar, 110 Admin. Bldg.	372-0441
Room and meal payments	Bursar, 133 Admin. Bldg.	372-2815
Scholarships	Financial Aid,	
	450 Student Services Bldg.	372-2651
Transcripts	Registrar, 110 Admin. Bldg.	372-0441



**BGSU**

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**Bowling Green State University**

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**1982-83 Undergraduate Catalog**

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Includes course descriptions and information about Firelands College



# About This Catalog

1. Students are responsible for knowing all requirements and policies in this catalog, particularly those academic policies on pages 7-11.

2. All information in this catalog was correct as of April 15, 1982, and is subject to change. Except as specifically stated herein, Bowling Green State University makes no representation or contract that following a particular course or curriculum will result in specific achievement, employment, or qualification for employment, admission to degree programs, or licensing for particular professions or occupations.

3. Programs are listed in this catalog under colleges in alphabetical order; under each program, courses are identified by a three- or four-letter abbreviation and a number. Course descriptions are listed in a section at the back of this catalog. They are listed in alphabetical order by department; courses offered through the University's Schools (Health, Physical Education, and Recreation; Speech Communication; Technology) are grouped under these schools at the end of the course descriptions.

4. The semester schedule of classes should be used in conjunction with this catalog to determine course availability since all courses are not offered every semester.

5. The University reserves the right to change its course offerings and academic requirements for the baccalaureate and associate degrees. To protect students from unnecessary penalty where these changes occur, the following policies in regard to the *Undergraduate Catalog* are in effect.

a. Students' academic requirements are based upon the *Undergraduate Catalog* in force during their first academic term at BGSU.

b. Students may elect to complete a program under the most recent *Undergraduate Catalog*. If this choice is made, then the student must complete all additional requirements for the program selected.

c. Students who transfer from one BGSU college to another follow the *Undergraduate Catalog* in effect at the time of the transfer.

d. Students who transfer from other institutions follow the *Undergraduate Catalog* in effect at the time of their initial registration for courses at BGSU.

e. Students who initiate but do not complete a program and return to the University follow the *Undergraduate Catalog* in effect at the time of return.

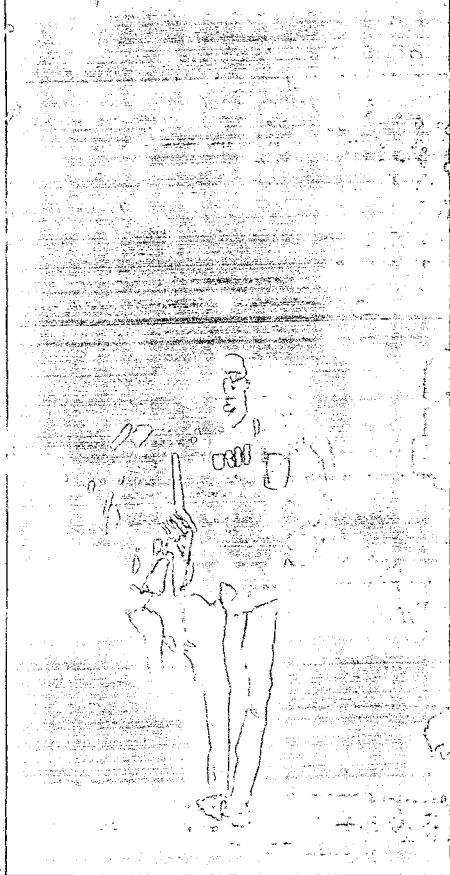
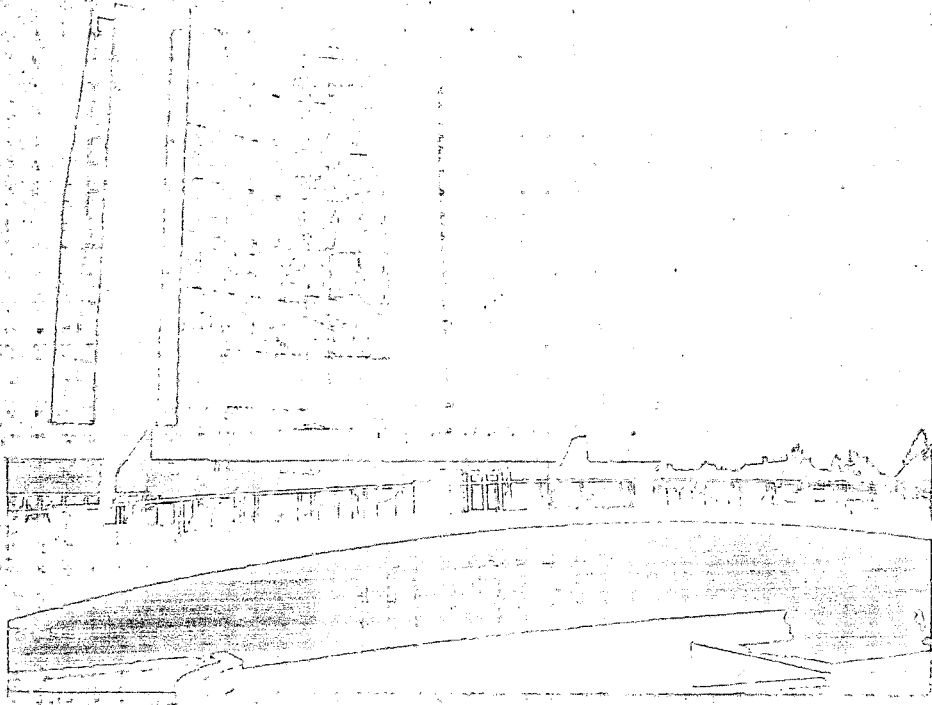
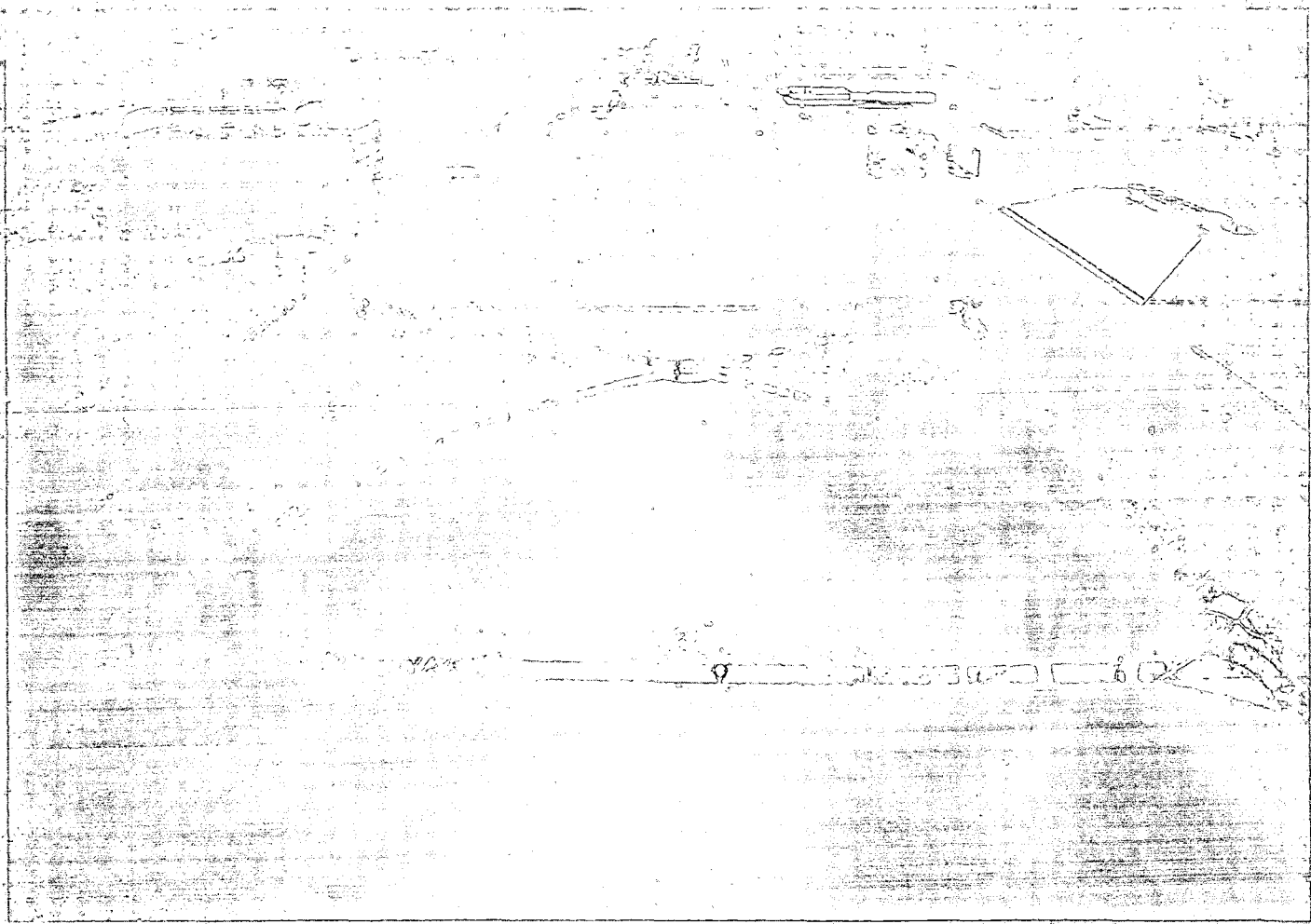
f. Questions concerning catalog policy are directed to the appropriate academic dean.

6. The social security number is used as an identifying account number throughout a student's attendance at the University. Students are required to disclose their social security numbers as a condition for enrollment at the University.

7. Bowling Green State University provides equal educational and employment opportunity regardless of race, sex, color, national origin, geographical area, religion, creed, age, marital status, mental or physical handicaps or veteran status. The University will not knowingly cooperate with, support, or employ the services of other organizations that discriminate against persons on such grounds. However, if any student with a physical disability requires special individual services or equipment, the student will be responsible for the expenses thereof. This policy includes the expense of providing personal tutors, personal attendants, medical technicians and so forth. The University will assist such students in communicating with proper community or government agencies to secure any available financial assistance to meet their needs.

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# The University

Bowling Green State University is situated on a 1,250-acre campus, which includes more than 100 buildings. The University offers more than 150 undergraduate degree programs, as well as 60 master's programs, 9 doctoral programs, four specialist's programs, and 17 associate degree programs. More than 16,000 students, including about 3,000 graduate students, attend classes on the main campus. The University enrolls an additional 3,000 students at the Firelands College and various off-campus centers. At the center of the University's academic community are the 750 faculty members, who are engaged in teaching, research, and scholarship activities.

Established in 1910 as a teacher-training institution, Bowling Green held its first classes in 1914, but it was not until the following year that the first two buildings—now University Hall and Williams Hall—were ready for use. Student enrollment for that initial year totaled 304, with a faculty of 21. The first bachelor's degrees were awarded in 1917.

In 1929, the functions of Bowling Green were expanded to provide four-year degree programs in the College of Education and the College of Liberal Arts. The College of Business Administration and graduate programs were added in 1935, the year in which Bowling Green attained full university status. In 1947, the Graduate School was formed, and BGSU awarded its first doctoral degrees (in English) in 1963.

Beginning in 1946, extension programs of the University were offered in Sandusky, Ohio. During the next two decades, course offerings there were expanded and in 1965 a branch campus of the University was established to serve Erie, Huron, and Ottawa counties. That branch campus eventually became Firelands College, located in Huron, Ohio. Firelands College offers career and technical education leading to associate degrees in 16 areas, as well as the first two years of baccalaureate degree programs.

In the 1970s, three new colleges were developed to give added dimension to the University's curricular offerings. In 1973, the College of Health and Community Services was established to provide degree programs in specialized areas in various health and community service fields. In 1975, the School of Music was expanded into the College of Musical Arts, and in the same year the Graduate School became the Graduate College.

In addition to its degree programs, the University offers diverse opportunities for educational and cultural enrichment to the people of the area through its regional and continuing education programs, as well as through the intellectual and cultural activities that are an integral part of campus life.

## The Campus

Included among the more than 100 buildings on the Bowling Green campus are some that were completed as early as 1915; more than half, however, have been constructed since 1960. Many are equipped with ramps and ground-level entryways for the handicapped.

The nine-story University Library is the focal point of the academic community. The design, open stacks, reading lounges, study carrels and seminar rooms have been planned to create an atmosphere conducive to independent study. The Library houses a collection of more than 700,000 volumes, 375,000 government documents, one million microforms and 5,000 periodicals. Of special note is the music library collection which, with almost 175,000 recordings and audiotapes, is one of the largest of any academic institution in the nation. In addition, the library contains a curriculum resource center and a special materials section, which includes the popular culture and rare books collections.

Among the facilities in the science-research complex are the Psychology Building, the Mathematical Sciences Building, the Life Sciences Building, and Overman Hall. These provide specialized research equipment and laboratories to serve the needs of students in a variety of disciplines.

The Technology Building contains a computer graphics center and specialized laboratories in design, electronics, manufacturing, visual communications and other technologies.

Art facilities are located throughout the campus and include individual studios for design and workshops for such art areas as jewelry making, wood working, painting, drawing, enameling, weaving, print making, sculpture, ceramics and glass blowing. Photography laboratories are also available at several campus locations. An art gallery located in the Fine Arts Building annually features exhibits of works by faculty and students.

The campus radio stations, WFAL-AM and WBGU-FM, provide students with practical experience in daily station operations. Students also support the professional staff in the programming and activities of WBGU-TV, a regional public television station located on campus that serves northwest Ohio and northeast Indiana.

Theater students at the University have many opportunities to participate in all phases of the theater experience through annual productions held in University Hall's Main Auditorium as well as the Joe E. Brown Theatre.

The Moore Musical Arts Center, completed in 1979, provides extensive and modern facilities for the University's music programs and activities. Constructed around an open courtyard, the music center includes an 850-seat concert hall, a 250-seat recital hall, as well as practice rooms, rehearsal halls, classrooms, studios and a variety of special facilities designed for specific areas of performance and instruction.

The focal point of campus recreational activity is the Student Recreation Center, also completed in 1979. Among the facilities contained in the recreation center are two swimming pools, 14 handball/racquetball courts, a running track and basketball/volleyball/tennis courts, as well as areas designed for games and table sports. Other campus athletic and recreational facilities include a 30,000-seat football stadium, an ice arena, a 5,200-seat basketball arena, an 18-hole golf course and 25 tennis courts.

The University Union is a center for social and cultural activities on campus. There are three food service facilities and 26 guest rooms in the Union, and a wide range of lectures, concerts and other activities are presented in the Grand Ballroom, located on the second floor.

Completed in 1976, the Mileti Alumni Center is the hub for the many activities of the University's alumni. It contains meeting rooms, a library and an art gallery which features works by alumni, faculty and students.

The University art gallery is located in McFall Center, which also houses administrative offices.

Other campus buildings house classrooms and facilities for programs in business administration, education and the humanities.



## Academic goals of the University

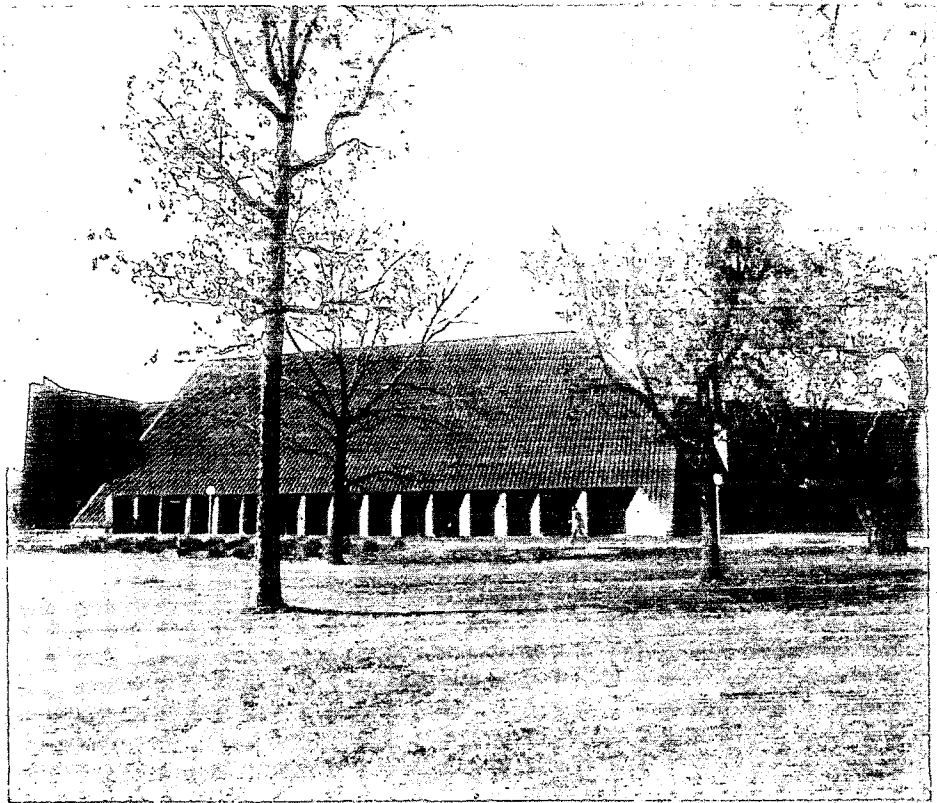
Bowling Green State University is dedicated to providing quality academic programs in a learning environment that promotes academic and personal excellence in students, as well as appreciation of intellectual, ethical and aesthetic values. Wisdom, sound judgment, tolerance and respect for other persons, cultures and ideas are the hallmarks of an educated person and the characteristics that the University hopes to develop in its students.

The extent to which these goals are met depends on the intellectual and cultural environment of the University, the wisdom and dedication of its faculty and the intellectual curiosity, ability and energy of its students. To achieve this end the University strives to attract the most qualified students and faculty committed to the goals of quality education, productive research and scholarly achievement.

Through a vigorous program of curricular evaluation and development, Bowling Green State University seeks to ensure that those who earn a baccalaureate degree from any of the colleges of the University will have acquired practical and theoretical understanding in a specific area of specialization; demonstrated competency in critical thinking, problem solving, reading, writing, speaking, computation and mathematics; acquired a fundamental breadth of knowledge in literature, the fine arts and the other humanities, as well as in the natural, social and behavioral sciences; experienced personal growth through interaction with all elements of the University community and through exposure to other cultures; and enjoyed the opportunity to explore diverse individual academic interests through the variety of courses and programs available at the University.

## Accreditation and recognition

The University is fully accredited at the bachelor's, master's, and doctoral levels by the North Central Association of Colleges and Secondary Schools. In addition, the College of Business Administration is accredited by the American Assembly of Collegiate Schools of Business (AACSB); teacher education, by the National Council for Accreditation of Teacher Education (NCATE) and the Ohio State Department of Education; the College of Musical Arts, by the National Association of Schools of Music (NASM); chemistry, by the American Chemical Society; psychology, by the American Psychological Association; nursing, by the National League for Nursing; rehabilitation counseling, by the Council on Rehabilitation Education; journalism, by the American Council on Education for Journalism; social work, by the Council for Social Work Education; communication disorders, by the Education and Training Board of the American Speech-Language-Hearing Association; theatre, by the National Association of Schools of Theatre; and medical record technology (Firelands College), by the American Medical Record Association.



## Academic organization

Courses of instruction leading to baccalaureate degrees are provided through: The College of Arts and Sciences, which includes the School of Art and the School of Speech Communication; The College of Business Administration, which includes the School of Journalism; The College of Education, which includes the School of Health, Physical Education, and Recreation and the School of Technology; The College of Health and Community Services, which includes the School of Nursing; The College of Musical Arts. Associate degrees are available through Firelands College and the College of Business Administration. Graduate degrees are offered through the Graduate College.

An undergraduate student enrolls in one of the six colleges—Arts and Sciences, Business Administration, Education, Firelands, Health and Community Services or Musical Arts. An undergraduate student who is undecided as to college or major enrolls in the University Division.

The University emphasizes the liberal education of freshmen and provides advising for them, especially for those undecided about their major. The University Division assists students in meeting the requirements of the specific degree-granting undergraduate colleges.

## Degrees offered

Four-year undergraduate programs are available leading to the following degrees:

Bachelor of Arts  
Bachelor of Arts in Communication  
Bachelor of Fine Arts

Bachelor of Liberal Studies  
Bachelor of Music  
Bachelor of Science  
Bachelor of Science in Applied Microbiology  
Bachelor of Science in Art Therapy  
Bachelor of Science in Business Administration  
Bachelor of Science in Child and Family Services  
Bachelor of Science in Criminal Justice  
Bachelor of Science in Dietetics  
Bachelor of Science in Economics  
Bachelor of Science in Education  
Bachelor of Science in Environmental Health  
Bachelor of Science in Gerontology  
Bachelor of Science in Journalism  
Bachelor of Science in Medical Record Administration  
Bachelor of Science in Medical Technology  
Bachelor of Science in Nursing  
Bachelor of Science in Parasitology and Medical Entomology  
Bachelor of Science in Physical Therapy  
Bachelor of Science in Social Work  
Bachelor of Science in Speech Pathology and Audiology  
Bachelor of Science in Technology

Two-year programs are available leading to the following associate degrees:

Associate in Applied Business (Business Administration)  
Associate of Applied Business (Firelands)  
Associate of Applied Science (Firelands)  
Associate of Arts (Firelands)  
Associate of Science (Firelands)

See the *Graduate Catalog* for a list of graduate degrees offered by the University.

# Academic Policies

## Baccalaureate degree

The baccalaureate degree program should enable all students to achieve the intellectual, ethical and cultural maturity that will allow them to become responsible participants in our society. The University curriculum for the degree has three components: general education; which focuses on skills and understandings; the major, which may include a minor area of concentration; and the elective courses, which enable students to explore fields outside the above components.

General education addresses the acquisition of basic skills in reading and writing, computation and mathematics, problem-solving and critical thinking, and integrating values in decision-making, and the acquisition of functional understandings in literature, the fine arts, and other humanities; the natural sciences; the social and behavioral sciences; and an understanding of at least one culture other than one's own.

The major provides the student with practical and theoretical knowledge in depth in one particular area of study. Electives allow the student to explore diverse individual academic interests, or interests that relate to the major.

## Dual degree programs

A candidate for an undergraduate degree from a college who desires to take a second degree from another college within the University may:

1. take work in the second college after graduating from the University; or
2. qualify for the dual degree program by meeting the requirements listed below.

A student desiring a dual degree must:

1. secure permission of the deans of both colleges before the end of the junior year;
2. complete the requirements of both colleges for the degrees sought; and
3. complete at least 20 hours of credit beyond the hours required for a single degree.

## General requirements for the baccalaureate degree

A candidate for a baccalaureate degree must complete the requirements listed below and any additional requirements set by the colleges for the specific degree sought: Check the appropriate sections of this catalog for additional degree requirements. The general requirements are:

1. Satisfy all University entrance requirements.
2. Earn a minimum of 122 semester hours of credit, at least 30 of which must be completed at Bowling Green immediately before graduation (some degrees require more than 122 hours of credit).
3. Earn an accumulative grade point average of at least 2.0 ("C") for the semester hours required for graduation.
4. Complete two semester hours of general physical education activities courses (PEG 100) preferably in the freshman year unless complete credit is granted for experiences in the U.S. Armed Forces or waived for

a physical handicap. In the case of the latter exception, a student must obtain a certificate from a University physician and the approval of the dean of the college in which the student is enrolled. One-hundred-level PEG activities courses must be completed before the student enrolls in PEG activity courses at the 200 level.

5. Complete the freshman English composition sequence, preferably in the freshman year.

6. Complete at least 40 hours of credit in courses numbered 300 and above. If a senior takes a course numbered 100-199 (except foreign language or computer science), an additional hour must be taken as a graduation requirement.

7. Satisfy all course requirements for the degree as listed in the appropriate sections of this catalog.

8. File an application for graduation according to the following schedule.

- a. For graduation in December, an application must be filed by the end of the second week of the fall semester.
- b. For graduation in May, the deadline for filing an application is the end of the second week of the spring semester.
- c. For graduation in August, the filing date deadline is the end of the first week of the summer session.



An application form and information may be obtained at the Office of Registration and Records, 110 Administration Building. A student not accepted as a candidate under the above procedure or who does not fulfill requirements toward a degree within four weeks after commencement must apply again for graduation at the next commencement.

## Requirement of writing proficiency

Recognizing that the ability to communicate in writing is a valuable skill and a hallmark of an educated person, the University requires that each student enrolled in a baccalaureate or associate degree program complete satisfactorily ENG 112 or give evidence of proficiency in written expression equivalent to that attained by the student who satisfactorily completes this course. No student can be excused from meeting this requirement, nor can the requirement be postponed.

The courses and services designed to aid students in meeting the writing requirement are coordinated through the General Studies Writing program. The English Placement Test, administered through this program, assesses the writing skills of entering students. On the basis of this test, students are placed in ENG 110 (Developmental Writing), ENG 111 (Introductory Writing), or ENG 112 (Varieties of Writing). A student may be required to take two or three of these courses, but no more than six hours of credit earned in these courses may be applied toward graduation. The writing proficiency of students is evaluated at the end of each course until students have reached the University proficiency requirement expected at

the end of ENG 112. Students who wish to receive transfer credit for English composition and communication courses from technical schools, junior colleges, and community colleges, as well as students who wish to be exempted altogether from English composition, are also tested for writing proficiency.

Special courses and services designed to aid international students (i.e., non-native speakers of English) in improving their English proficiency are coordinated through the Program in English as a Foreign Language. Upon reporting to the University and before registering for classes, all entering international students admitted through the Office of International Programs and the Office of Admissions, except those whose native language is English, are required to take on-campus proficiency tests; international students transferring from other colleges and universities in the United States as well as students from Puerto Rico are also required to take these tests. On the basis of these tests, the University reserves the right to require enrollment either in ENG 100 (English as a Foreign Language) or in the special section for international students of ENG 110 (Developmental Writing) and to limit courses taken for credit. Although it may be necessary for students to repeat ENG 100, only four semester hours of credit can be counted toward graduation.

To encourage all students to pass ENG 112 prior to the beginning of the junior year, 3 credit hours are added to the graduation requirements of students who pass ENG 112 after accumulating 60 credit hours; 4 hours, to the graduation requirements of those with 90 or more credit hours. This requirement applies only to new students

who enter the University on or after September 1, 1981.

The following are exempt from this penalty:

1. students transferring to BGSU with 31 or more credit hours, provided that ENG 112 is passed within the first 30 credit hours earned at BGSU after the transfer; and
2. international students who transfer to BGSU with 21 or more credit hours and for whom English is a second language. Exemption from the penalty must be recommended by the director of international programs and ENG 112 must be passed within the first 40 credit hours earned at BGSU.

## General requirements for the associate degree

A candidate for an associate degree must complete the requirements listed below and any additional requirements set by the colleges offering this degree. The requirements are:

1. Satisfy all University entrance requirements.
2. Earn a minimum of 62 semester hours (some degrees require more than 62 hours of credit).
3. Earn an accumulative grade point average of at least 2.0 ("C") for the semester hours required for graduation.
4. Complete two semesters of general physical education activities courses (PEG 100), preferably in the freshman year. PEG





100 courses are not required for the Associate of Applied Science or for the Associate of Applied Business (Firelands only) and may be waived for the Associate of Arts and Associate of Science if a student is over age 25.

5. Complete the freshman English composition sequence, preferably in the freshman year.

6. Complete all course requirements for a degree program as listed in the appropriate section of this catalog.

7. File an application for graduation according to the following schedule.

- a. For graduation in December, an application must be filed by the end of the second week of the fall semester.
- b. For graduation in May, the deadline for filing an application is the end of the second week of the spring semester.
- c. For graduation in August, the filing date deadline is the end of the first week of the summer session.

An application form and information may be obtained at the Office of Registration and Records, 110 Administration Building, or the Registration Office in the East Building at Firelands.

A student not accepted as a candidate under the above procedure or who does not fulfill requirements toward a degree within four weeks after commencement must apply again for graduation at the next commencement.

## Other policies

### Classification of students

Classification of a student as a freshman, sophomore, junior, or senior is determined on the basis of credit hours earned.

In a baccalaureate degree program a student is classified according to hours earned as follows: freshman, 0-29 hours; sophomore, 30-59 hours; junior, 60-89 hours; senior, 90 hours to hours required for graduation.

A student who is enrolled for undergraduate course work but who does not have a degree goal is an unclassified undergraduate student. A student who has earned a degree and who desires to register for undergraduate courses without pursuing another degree enrolls as an unclassified degree-holder.

### Change of college or major

A student whose goals have changed may wish to change to another college or major. Before changing to another college a student should explore the requirements of the desired college. To change to another college, a student must have at least a 2.0 cumulative grade point average and obtain the approval of the college to which the student is transferring. The transfer also must be officially recorded by the dean's office of the college from which the student is transferring.

A student who wishes to change a major within a college should notify the college office. At that time an appropriate adviser is assigned.

Academic advisers are available in the college offices to help students select the degree program that best meets individual needs and interests.

### Withdrawal from the University

A student who wishes to withdraw from the University in good standing must obtain the permission of the dean of the college in which the student is enrolled. If a student leaves the University without proper notice and permission, a mark of "WF" is recorded in all courses for which the student is currently enrolled. The student is not entitled to any refund of fees nor to a certificate of honorable dismissal.

A student who withdraws with permission from the University will have all courses from the semester dropped and no grades recorded unless the student has previously withdrawn from a course with a "WF." A student who withdraws from the University within five weeks of the end of the semester is not permitted to enroll for the next semester except by special permission of the dean of the college.

When, in the judgment of the medical staff of the Student Health Service, the physical or mental condition of a student might be disadvantageous to the health or welfare of that student or others on the campus, the University may require the withdrawal of the student from the University.

See Refund of Fees under Fees and Charges, page 24.

### Grading policies

Courses are graded as follows: A—excellent; B—good; C—acceptable; D—poor but passing; F—failure; and WF—withdrawn failing.

Certain courses (including student teaching, some internships, remedial courses, and required physical education courses) are graded S/U only and are so indicated in the course descriptions. S means satisfactory and indicates course credit was earned. U means unsatisfactory and indicates no credit. A student may also elect the S/U grading option in no more than 16 credit hours in a baccalaureate degree program (beyond those hours graded S/U only). The grading option must be declared at the Office of Registration and Records no later than seven calendar days after the beginning of classes for a semester. Many departments do not accept courses taken under the S/U option for credit in major or minor requirements; students should consult departmental officials. More than 12 semester hours of S/U grades will increase the grade point average needed for graduation with honors. Of the 56 hours required at BGSU for transfer students, no more than eight may be taken S/U at the student's option in order for the student to be considered for graduation with honors. See Graduation with Honors, page 10.

The grade of S is interpreted as failing within the range of A to C and carries full credit. A grade of U is interpreted as D to F and carries no credit. S and U grades do not affect the accumulative grade point average.

A student who withdraws from a course may receive a grade of WP (withdrawn passing) or WF (withdrawn failing). WP is assigned when a student withdraws in good standing during the fourth through ninth week of a course. WF is assigned if the student is failing at the time of withdrawal from the course during the fourth through the ninth week of a semester; the student withdraws after the ninth week of semester; or if the student stops attending but does not process an official withdrawal in the Office of Registration and Records. This provision applies to all grading options, including S/U. The grade of WF is used in computing the grade point average. A student who officially withdraws from the University receives a W in all courses, unless the student has previously withdrawn from a course with a WF. WP and W grades are not recorded on a student's permanent record.

See Incomplete Marks, page 10.

See Withdrawal from University, page 9.

### Grade point average

For averaging grades, the following quality points are assigned to each letter grade:

- For each hour of A—4 points;
- For each hour of B—3 points;
- For each hour of C—2 points;
- For each hour of D—1 point;
- For each hour of F or WF—0 points;
- For each hour of I—0 points after the deadline for removal.

A student's grade point average is obtained by dividing the total number of quality points earned by the total number of hours taken, excluding courses in which the marks S, U, P, W, or WP are recorded. The hours for which a mark of I is recorded are excluded from grade point average computation until the deadline for removal.

As an example, suppose a student receives the following grades for a semester:

Biology (a 4-hour course)	B
English (a 3-hour course)	B
French (a 4-hour course)	C
Health (a 3-hour course)	A

First, determine the number of quality points earned for each course. For example, each hour of B is worth 3 points and a 4-hour B is worth 12 points (3 x 4). Therefore, the above grades translate into quality points as follows:

$$\begin{aligned} 4 \text{ times } 3(B) &= 12 \\ 3 \text{ times } 3(B) &= 9 \\ 4 \text{ times } 2(C) &= 8 \\ +3 \text{ times } 4(A) &= 12 \end{aligned}$$

14 hours      41 quality points

Now, divide the number of quality points by the number of hours taken for a letter grade. The grade point average for this sample schedule is 2.9285 or 2.92. Grade point averages are not rounded up to the nearest hundredth of a point.



### Incomplete marks

The mark of I (incomplete) is given when, for some acceptable reason, a student fails to meet a definite requirement in a course as established by the instructor. In courses graded only on an S/U basis and in courses elected to be taken on an S/U basis, a grade of U is recorded until the work is satisfactorily completed. The mark of I or U may be removed and a grade (if taken for a grade) or the letter S (if taken S/U) may be substituted for it by a student making up the deficiencies to the satisfaction of the instructor.

Unless an extension of time is granted by the academic dean, a mark of I or U must be removed by March 1, August 1 and November 1 for the fall and spring semesters and summer session, respectively. Incompletes not removed by these deadlines will be computed as F in the accumulative grade point averages of all undergraduate students with or without an extension of time. The student who has been granted an extension, however, will have the opportunity to have his or her grade point average recalculated and the incomplete changed to the grade assigned.

### Grade and other appeals

Students have a right to appeal decisions on grades. The student should first contact the department from which the grade was received. A member of each department, who is not a major departmental administrator, is designated to hear complaints, gather information, talk with both students and faculty, mediate disputes or identify appropriate channels for solving problems. If the dispute cannot be resolved at this level then the student should state the full particulars of the appeal in writing and submit them to the department chair or policy committee. If the matter is not resolved at the department level, the student may request a hearing

before the academic arbitration board of the appropriate school or college. However, the sole responsibility and authority for determining grades rests with the faculty member who assigned the grade. The appeals procedure also may be used if a student believes an opportunity should be provided to make up work missed during absence from classes.

The grade appeals procedure must be started by the end of the seventh week of the spring semester for grades received during fall semester, and by the end of the seventh week of fall semester for grades received during the spring semester or during the summer session. All actions for grade changes must be completed during the semester in which the grade is appealed.

In matters other than grade and absence appeals, if a student grievance is not resolved at the college level, then it may be appealed to the provost.

## Academic honors

### Dean's list

Full-time undergraduate students who demonstrate a high level of excellence in academic work have their names placed on the academic dean's list. The requirement for achieving the academic dean's list is a grade point average of 3.5 or above in the preceding semester with no fewer than 12 credit hours per semester included in the grade point average computation.

### Graduation with honors

The record of each senior with a very high point average is carefully reviewed by the University Committee on Honors and Awards in order that appropriate recognition and honor may be accorded each student who has achieved outstanding academic success throughout four years of college.

The tentative honor announced at commencement and released to the newspapers is figured without the grades from the student's last academic term. The final honor which is put on the permanent record and diploma is based on the student's entire academic record.

In determining academic honors, total letter-graded credits (TLC) are credits for those courses that determine the student's grade point average.

### Cum laude

Cum laude signifies a high level of academic achievement and graduation with praise. This honor requires a minimum of 55 TLC and an accumulative GPA at least as high as the larger of 3.5 and [4.5 - (TLC/110)].

### Magna cum laude

Magna cum laude signifies a very high level of academic achievement and graduation with great praise. This honor requires a minimum of 83 TLC and an accumulative GPA at least as high as the larger of 3.75 and [4.75 - (TLC/110)].

### Summa cum laude

Summa cum laude signifies the highest level of academic achievement and graduation with great praise. This honor requires a minimum of 99 TLC and an accumulative GPA at least as high as the larger of 3.9 and [4.9 - (TLC/110)].

### Transfer credit

In the case of transfer credit, each record is studied and evaluated individually. In general, the following principles serve as guides:

1. A student entering the University with transferred credit must meet the accumulative grade point average standard for honors in all hours completed, transferred and otherwise, which are considered jointly. In addition, the point average of all work taken at Bowling Green State University must be of honors quality;

2. A student must have completed at least 56 hours at BGSU. At least 30 of these hours must be in letter-graded courses. No more than 8 of these 56 hours may be taken S/U at the student's option;

3. A candidate should be in residence at least one academic year or 30 hours in consecutive summers (attending either the full summer session or both of the terms each summer) immediately preceding graduation. A student with written permission to participate in an approved combination curricula in cooperation with a professional school or college of another institution is exempt from this requirement.

In reviewing the record of a candidate for honors, each case is judged on its own merit.

## Repeating a course

A student may repeat a course in which a grade of D, F, I, U, or WF was received. If a student repeats such a course at the University, then:

1. The credit hours and quality points for the original registration will not be used in computing the student's accumulative grade point average;

2. The credit hours and quality points for each repeat registration will be used in computing the accumulative grade point average; and

3. The course must be taken for a letter grade unless it is graded S/U only.

No grade is removed or erased from a transcript by repeating a course.

For other courses that are repeated, the grades and credit hours for both the first and subsequent registrations are counted in computing the student's grade point average. If the student repeats a course in which a grade of C or higher was received, no additional credit hours are thereby earned.

If a student receives a grade of D, F, I, U, or WF in a course and then receives credit for that course by successful completion of a similar course at another institution, the credit hours and quality points for the first registration will continue to be used in computing the students' grade point average.

Students must report each repeat registration to the Office of Registration and Records.

## Unsatisfactory academic progress

### Academic warning

Freshmen or sophomores are warned of unsatisfactory progress when their accumulative point hours and quality points indicate a deficiency from a C (2.0) average by more than three quality points. (See grade point average, page 9.)

### Academic probation

The academic standing of a freshman or sophomore is considered unsatisfactory and the student is placed on academic probation when the accumulative point hours and quality points indicate that the student is deficient from a C (2.0) average by more than six quality points. (See grade point average, page 9.)

The academic standing of a junior or senior is considered unsatisfactory and that student is placed on academic probation when the accumulative point hours and quality points indicate that the student is deficient from a 2.0 average by more than three quality points.

A student on probation because of unsatisfactory academic standing must follow a restricted program as follows:

1. The course load must not exceed 16 hours and may be less if so determined by the college dean;

2. The student may not take part as a performer or an officer in any meeting or conference except for an activity begun the preceding semester. A student on probation cannot compete in intercollegiate athletics.

### Academic dismissal

The freshman or sophomore student is academically dismissed from the University when the accumulative point hours and quality points indicate deficiency from a 2.0 average by more than 10 quality points. (See grade point average, page 9.)

The junior or senior student who is not in good standing at the beginning of fall semester is academically dismissed when grades are deficient from a 2.0 accumulative average by more than six quality points.

A junior or senior who is in good standing at the beginning of the fall semester may enroll for the spring semester of the same year without regard to academic standing at the close of the fall semester.

See Refund of Fees under Fees and Charges, page 24.

### Reinstatement

A student who is dismissed because of unsatisfactory academic standing may enroll in the next summer session, otherwise such dismissal is for at least one semester; return in a fall semester requires approval of the student's college. The student needs to have a total quality point deficiency of not more than 10 points as a freshman or sophomore or not more than six points as a junior or senior at the end of the semester to qualify for reinstatement. (See grade point average, page 9.)

If the enrollment capacity of the University for the next semester, as determined by University officials, has already been reached when the student becomes eligible for reinstatement, readmission may be allowed in a later semester.

A student who does not qualify for reinstatement at the end of the semester but who has reduced the quality point deficiency by as many as three points may enroll for the next semester providing appropriate class and housing space is available.

The student who is academically dismissed may not qualify for reinstatement through attendance at another college or university. Advanced standing credit is granted for courses completed at another institution during a student's period of suspension from Bowling Green only upon acquisition of a 2.0 accumulative grade point average at Bowling Green.

## Advanced placement

Advanced placement may be achieved in five ways:

1. Demonstrating appropriate achievement on Bowling Green placement tests, which leads to exemption from courses but *not* credit.

2. Passing an examination administered by an academic department of the University; see Credit by Examination.

3. Completing a college-level course in high school and earning a prescribed grade in an advanced placement examination administered in the high school through the College Entrance Examination Board (CEEB). This leads to college course credit and/or exemption. (For more information, contact Center for Educational Options on the main campus, or the Office of Student Services at Firelands.)

4. Attaining appropriate scores on the general examinations of the College Level Examination Program (CLEP). This leads to general elective credit; See Credit by Examination. Also, see Center for Educational Options, page 16.

5. Passing a higher level course in sequence with a grade of "C" or above and thereby earning credit for lower level sequence courses in prescribed departments.

## Credit by examination

An undergraduate student may gain credit by examination with the approval of the student's dean and the department involved. The student wishing credit in a course must not have enrolled in the course previously and must present sufficient evidence of prior study or experience. The course cannot be a prerequisite for any course the student has completed. Once approved, the examination must be completed within four weeks of the approval. This option may not be repeated. A \$30 fee is assessed for a credit-by-exam course. Further information on procedures is available at the student's college office. General elective credit may be earned by attainment of appropriate score levels on the general examinations of the College Level Examination Program (CLEP). See Center for Educational Options, page 16.

A student may also receive credit for course work taken at another institution, in which the final grades were equivalent to C or better but which did not transfer because of BGSU policies, by taking a validation examination.

A student in the School of Nursing may take the National League for Nursing exam to validate course work taken before entrance into BGSU's baccalaureate program in nursing.



# Special Academic Options

## Study abroad

BGSU offers many opportunities for students to participate in education programs in other countries. Some programs are offered for the entire academic year while others are for one semester. Students may also arrange for study abroad on an individual basis by contacting the Office of International Student Programs, 16 Williams Hall, 372-2247, or the Center for Educational Options, 231 Administration Building, 372-0202.

### ASIA—Korea, Japan

Through the Asian studies program, students may have the opportunity to study in either Korea or Japan. This program is conducted on an exchange basis, with equal numbers of students exchanged between the participating universities. BGSU has an exchange arrangement with Yonsei University in Korea and Nanzan University in Japan. Tuition is waived for both the Asian and American students. Students bear the cost of airfare, room and board, and live with a family in the host country for a total cultural immersion experience. All academic credits earned at the host institution are transferable to Bowling Green.

### AUSTRIA—Salzburg

The Department of German and Russian conducts an academic year abroad program in Salzburg, Austria. The program consists of two semesters (three quarters) of academic study in a German-speaking country with an excellent cultural environment. All academic work is done in German. The curriculum includes courses in German language and literature, as well as the arts and the social sciences. Qualified music students may also take courses at the Mozarteum. An American program director resides in Salzburg, but the teaching staff is drawn from the faculty of the University of Salzburg. Students live with Austrian students in a dormitory.

The program generally runs from October 1 through June 30. Applications are accepted starting in January of every academic year. Applicants must have the equivalent of two years of college German prior to leaving for the year abroad. Students must also have a minimum accumulative grade point average of 2.25 in all academic work, with a minimum GPA in German courses. A similar program is offered during the summer session. For more information, call 372-2268.



### ENGLAND—Brighton

An exchange program exists for physical education majors with Brighton Polytechnic of Brighton, England. This study abroad is usually arranged for the second semester in the junior or senior year. Recently plans have been discussed to expand the exchange arrangement to include students in art, sociology, recreation, and the humanities. For more information, call 372-2209 for physical education; 372-2786 for art; and 372-2546 for sociology.

### FRANCE—Tours

Tours, situated in the "garden of France," is the site of BGSU's academic year in France, conducted by the Department of Romance Languages. All courses are conducted in French and include work in French language and literature, as well as the arts and social sciences. Students live with carefully chosen French families. A BGSU faculty member supervises the program, but the teaching staff is drawn from the University of Tours and the Institut d'Etudes Francaises de Touraine. The program also features an intensive language orientation session at the Alliance Française in Paris during September.

The program is open to any student having completed FREN 202, regardless of the major area of study. A student must have a minimum 2.5 accumulative grade point average, with a 2.5 average in French courses. For more information, call 372-0278.

### FRANCE—Nantes

The College of Business Administration offers an opportunity to enroll in a five-week summer session at l'Ecole Supérieure de Commerce et d'Administration des Entreprises, a business school in Nantes, France. All students are eligible, although preference is granted to juniors and seniors. Courses are taught in English and carry six hours credit. Knowledge of French is not required. However, special language courses are offered in the spring semester and at the French school for those who wish to improve their language skills. The course of study includes the common market, the European financial environment and business, and labor and social relations in selected countries.

### GERMANY

In cooperation with the Federation of German American Clubs (West Germany), BGSU maintains a direct student exchange

with German universities. This program brings two German students to BGSU each year, in exchange for two BGSU students going abroad to one of 13 cooperating German universities. BGSU students must have approximately a 3.00 grade point average and fluency in German. Preference is given to students entering their junior year. The program is open to all students, regardless of major area of study. For information, contact the Office of International Programs, 372-2247.

#### **SPAIN—Madrid**

The Department of Romance Languages conducts a year-round study program in Madrid, Spain. The curriculum for the program, which runs for two semesters and the summer session, includes course work in the Spanish language and literature, as well as in the arts, history and geography of Spain. All courses are taught in Spanish and are approved by the respective departments at BGSU. The teaching faculty is drawn from the staff of Spanish institutions of higher learning. An American program director resides in Madrid and supervises the academic program. The program is open to any qualified student regardless of major area of study.

The department also offers a graduate summer study program for students enrolled in the M.A. degree program in Spanish. For high school students, a 3-week summer program is offered, as well as a 3- or 6-week program for high school teachers. For more information, call 372-0053.

#### **International Student Exchange Program**

As a participating member of the International Student Exchange Program (ISEP), BGSU offers its students the opportunity to study abroad in more than twenty-five coun-

tries and to apply credits earned at the foreign institution toward their BGSU degrees. Costs of participating in the program are based on BGSU tuition, fees, room and board; hence, studying abroad through ISEP involves few additional expenses beyond travel and personal or incidental purchases.

Most ISEP exchanges are for an entire academic year, beginning at the start of the fall academic term and continuing through the end of the spring term, but some institutions will accept exchange students for one semester and it is sometimes possible to begin an exchange with the second term.

To be eligible for ISEP, applicants must be full-time students and must have completed at least one year of study at BGSU prior to the period of exchange. Additionally, participants must be proficient in the language of instruction of the institution to which they plan to exchange.

For complete information on the program and the participating ISEP institutions, contact the Center for Educational Options.

#### **Student teaching abroad**

Students enrolled in the College of Education and interested in completing their student teaching in another country may apply for student teaching sites in Sao Paulo, Brazil; Bogota, Colombia; or Montreal and Toronto, Canada. While completing the student teaching requirements, students live with national host families and participate in the daily cultural activities of the country. All instruction is provided in English, and knowledge of the national language is not a requirement. For more information, call 372-0151, ext. 367.

#### **Independent studies program**

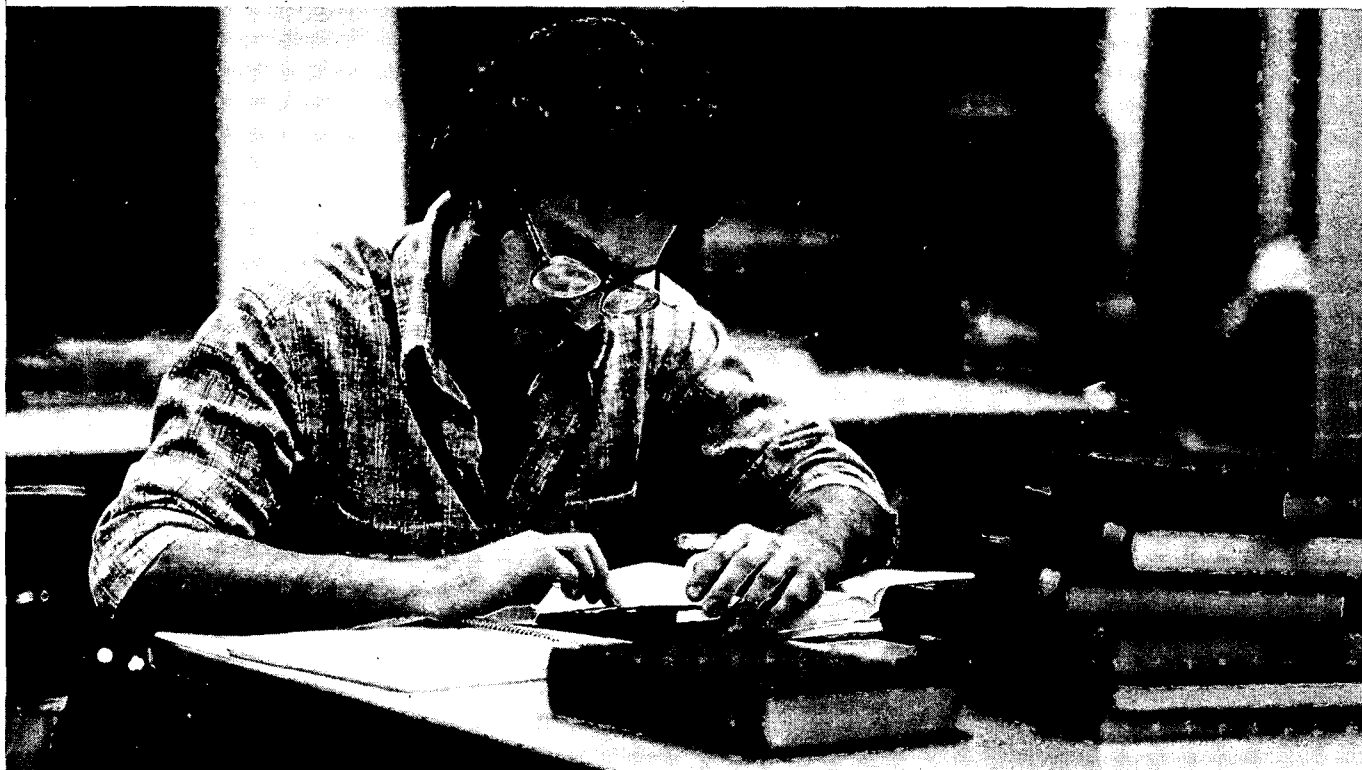
Any student beyond the freshman year can earn credit by designing and satisfactorily completing a travel/study project under the sponsorship of a faculty member. Up to 16 hours of general education credit can be earned in one semester if the student desires. Single independent study projects carrying more than five hours of credit require a second faculty sponsor and the permission of the student's college dean. All credits earned are graded S/U. For more information, call 372-0202.

#### **University honors program**

This program is open to qualified incoming students and to other undergraduates who would like a more enriching experience in their general education as well as their field of specialization. The Honors Program offers intellectually challenging experiences in general studies. An Honors Center provides a place for social as well as academic meetings with students of similar ability and motivation. The program's affiliation with the Mid-East Honors Association and the National Collegiate Honors Council offers opportunities for interaction with honors students from other universities.

The University Honors Program and departmental honors programs may be pursued through the senior year thesis, leading to "Honors" on the permanent record. Both programs offer an array of class sections which are available without having to make a four-year commitment.

The general studies or University honors program does not displace or conflict with



departmental honors, nor does it require additional courses. Rather, the program is designed to provide more scholarly, yet personalized strategies for satisfying general studies requirements in the various BGSU colleges. In departmental honors programs the emphasis is on more intensive and extensive study than is available in more usual course sequences.

Admission criteria for incoming students include:

1. Placement in or exemption from English 112;
2. An ACT composite of 26 or above or SAT composite of 1100 or above;
3. High school grade point average of 3.5 or above on a 4.0 point scale or rank in the top 10 percent of the high school graduating class;
4. Two letters of recommendation.

For more details and an application form, contact the Honors Program office, 231 Administration Building, 372-0202. The deadline for all application materials is June 1; successful candidates will be notified by July 1 and will meet with the honors director during their scheduled Pre-Registration time to discuss course options, including special registration privileges.

Admission criteria for continuing students include:

1. Completion of 15 credit hours at BGSU with a 3.5 (B+) or better grade point average or completion of two University Honors courses with grades of B or better; and
2. Placement in, exemption from, or completion of English 112.

University Honors courses consist of interdisciplinary seminars, honors sections of some general education courses, and other specially developed courses that meet the interests of students and faculty. For details regarding available options, contact the Honors Program office.

The program is optional and open to any eligible student, within any academic discipline on campus, who chooses to participate. Actual registration for any University Honors class requires approval of the honors director.

### **Evening credit program**

The Evening Credit Program offers a wide variety of undergraduate and graduate courses for students who attend the University after 5 p.m. The student may take courses to update skills, to explore a new career, or to work toward a degree. A student may begin University studies as an unclassified student while determining academic interests and possibilities. An unclassified student may accumulate up to 16 hours of credit before being admitted to the University and declaring a major. For information about the degree programs available in the evening, contact the Office of Continuing Education, Regional and Summer Programs, 300 McFall Center.

The Evening Credit Program also offers special services to the student on campus during the evening. Course offerings are advertised each semester and a special evening registration is held approximately four weeks before classes begin. Program



advising is available during evening registration, or by appointment through the Office of Continuing Education, Regional and Summer Programs, 372-0181. The evening student can obtain necessary forms and parking stickers, register for courses, drop or add courses, and obtain general information about University procedures and programs.

### **Cooperative education program**

The Cooperative Education Program offers graduate and undergraduate students an opportunity to integrate classroom theory with practical, on-the-job realities through a planned series of work assignments with employers in business, industry, government and the nonprofit sector that alternate with formal course work. Employers assign students work which is relevant to each student's academic degree program or career interests, provide on-the-job supervision, evaluate the student's performance on a regular basis and pay each student a fair wage. Each co-op assignment is carefully monitored by the University and is considered an integral component of the student's total learning experience.

The program is optional and open to any student, within any academic discipline on campus, who chooses to participate. Adviser approval is required. Academic credit may be awarded for the off-campus work experiences, subject to departmental approval. Interested students should contact the Office of Cooperative Education, 222 Administration Building, (419) 372-2451, for information.

### **Senior adults grants program**

The Senior Adult Grants for Education (SAGE) program is an opportunity for all Ohio residents age 60 and over to enroll in courses on a non-credit basis at BGSU without payment of instructional or general fees. To be eligible, persons must have lived in Ohio for at least one year prior to enrollment. Participants have access to all University classes and workshops, in which space is available.

## ROTC (Reserve Officers Training Corps)

### Air Force ROTC

The objective of the Air Force Reserve Officers Training Corps (AFROTC) program, offered by the Department of Aerospace Studies, is to provide college-level education that will qualify interested men and women for commissioning as second lieutenants in the United States Air Force in response to Air Force requirements. Emphasis is placed on the development of each student's sense of personal integrity, honor, individual responsibility and potential as a leader and manager.

The AFROTC program consists of a General Military Course (GMC) offered to freshmen and sophomores, and a Professional Officer Course (POC) offered to selected juniors and seniors. Admission to the GMC is open to most U.S. citizens, male and female, between the ages of 14-26. The student must be regularly enrolled in the University and registered for a minimum of 12 academic hours. The student spends two hours per week in AFROTC courses, receiving one hour of credit each semester. A uniform and AFROTC textbooks are provided without cost while enrolled in the GMC. The enrollment of alien students is governed by Air Force regulations.

Admission to the POC is on a competitive basis for those students who successfully complete the GMC. Requirements for selection to the POC include successful completion of the Air Force Officer's Qualifying Test (general knowledge and aptitude) and an Air Force medical examination. The student must be of high moral character and demonstrate outstanding leadership potential. A student who is accepted into the POC must complete a mathematical reasoning course and an English composition course prior to graduation. The student spends four hours per week in AFROTC courses, receiving three hours of credit each semester. While enrolled in the POC, students receive \$100 per academic month (tax-free), free AFROTC textbooks, and individually tailored uniforms. Enrollment of alien students is governed by Air Force regulations.

A two-year program is available to students who have four semesters of any combination of undergraduate or graduate studies remaining. In addition to meeting physical requirements for selection, the student must attend a six-week summer field training camp prior to admission to the two-year program.

Students enrolled in aerospace studies may substitute these courses for physical education courses as prescribed by the individual colleges. AFROTC leadership training activities (leadership laboratory) are a part of each course and offer opportunities for practical leadership training and experience in a supervised environment.

Certain selected students are eligible for two-, three-, and four-year ROTC scholarships. Scholarships cover required fees and books, tuition, and pay the recipient \$10 per

academic month (tax-free). A student who accepts an Air Force scholarship must complete an English composition course prior to entry into the POC, a mathematical reasoning course, and one semester of an approved foreign language prior to graduation.

The student who successfully completes the AFROTC program and graduates from the University is commissioned as a second lieutenant in the U.S. Air Force and will be called to active duty in the Air Force during the year following graduation. The active duty commitment incurred is normally four years; however, students designated for pilot or navigator training will serve seven years and six years, respectively.

For additional information, contact the Department of Aerospace Studies.

### Army ROTC

Army ROTC at BGSU provides an opportunity for men and women to participate in practical management and leadership activities designed to enhance the student's other academic pursuits. Upon successful completion of the Army ROTC program, graduates may be commissioned as second lieutenants in the Active Army, the Army Reserve, or the National Guard. All ROTC courses are fully accredited.

A two-year and a four-year program are offered at BGSU. The traditional four-year program consists of a Basic and an Advanced Course. The Basic Course is completed by enrolling in a 100- or 200-level military science course each semester during the freshman and sophomore years. Participation in the Basic Course entails no military obligation, no uniform wear, and no military drill.

Upon successful completion of the Basic

program, students become eligible to enroll in the Advanced Course provided they have demonstrated officer potential, met physical standards, passed a general aptitude test, and been accepted for enrollment by the military science department. Once accepted into the Advanced Course, a military obligation is incurred, and the student has the privilege of wearing the uniform. The Advanced Course is normally taken in the last two years at BGSU. It includes a six-week Advanced Camp, for which students are paid, during the summer of the junior year. All Advanced Course students receive a monthly allowance of \$100.

The two-year program is a special option program designed for students with prior military service, or who are community or junior college graduates or who are members of the National Guard or Army Reserve. It is also available to BGSU and transfer students who were not able to take ROTC during their first two years. Students interested in the two-year program should contact the Department of Military Science.

All BGSU students, even those who have had no previous connection with ROTC, may compete for ROTC scholarships which pay for BGSU tuition, fees, books and supplies. Scholarship students also receive \$100 each month. Limited programs are available to assist qualified students in graduate study.

A semester activity fee of \$3 is charged to students in the basic courses; Advanced Course students pay a \$10 annual activity fee. Students who are not U.S. citizens must obtain permission from the military science department prior to enrolling in any ROTC course.



## Center for Educational Options

The Center for Educational Options provides university-wide programs that enrich the undergraduate experience. The center places special emphasis on options for freshmen. University-wide programs housed in the center include the University Honors Program, the University Division, Off-Campus and Independent Studies, the University Seminar, Career Planning and Decision Making, Summer Transition Courses, University-wide General Education Liaison and the Time-Flexible Degree Program.

### University Division

Freshmen entering Bowling Green may wish to explore a variety of academic majors prior to declaring a major area of study. Such students can enroll in the University Division.

Each student in the University Division is assigned an academic adviser who is familiar with the general education requirements of the undergraduate colleges. Division students get assistance from their advisers in selecting general education courses as well as in exploring different major areas of study. The division maintains information about the academic requirements of each major offered at the University, but refers students to the appropriate departmental office for more detailed information. Students are encouraged to enroll in one of the undergraduate colleges before completing their third semester at the University. Although the counseling and advising services of the University Division are used primarily by freshmen unsure of their major area of study, other students at the University may also use these services.

### Career planning and decision making (CEO 131)

The Career Planning and Decision Making course helps students to assess those values, interests, needs and skills which will be most helpful in selecting an academic major and relating that major to a career. Resume writing, current job market trends, employer/employee work expectations, working environments and the nature of occupations are analyzed. Strategies are developed for learning how to make appropriate and sound decisions regarding life and work concerns.

### Time-flexible degree program\*

This program gives students the opportunity to demonstrate early achievement of competencies in the general studies areas of communication, critical thinking, the physical sciences, the social sciences and the humanities. These competencies are evaluated primarily through grades and scores on comprehensive examinations given once a

year. Students who demonstrate a high level of competency in the general studies areas can obtain a degree in less than four years; or they may design a flexible four-year program, pursuing such academic options as double majors, off-campus internships, and study abroad programs.

Students applying for the program are counseled individually concerning the freshman general studies program best suited to helping them acquire or sharpen necessary competencies. Their background and personal, academic, and career goals serve as guidelines for making these decisions. With few exceptions, individuals who receive credits through the time-flexible degree program have well above a B average and have scored at least at the sophomore level on the required examinations.

The program is designed primarily for students who enter the University in the fall semester. Part-time students, transfer students or those who enter the University during a semester other than fall and who have less than 30 credit hours must notify the Center for Educational Options of their interest in the program by the end of their first semester at the University. Part-time and transfer students who have accumulated more than 30 credit hours are not eligible to participate in the program.

\*Although students may be awarded college credit through more than one of these programs, students may not receive credit from more than one of these programs for the same course or academic experience.

## College Level Examination Program (CLEP)\*

CLEP offers general area examinations in English composition, natural sciences, humanities, social sciences and mathematics. Students may use these examinations to earn general elective credit at Bowling Green. There are individual test dates each month, but Bowling Green also offers a special campus test date for incoming freshmen, usually just before their fall classes begin. To be eligible for an area of the CLEP exams a student *must not have done college-level work in that specific area*. For information on the Bowling Green institutionally administered test, contact the Center for Educational Options or the Counseling and Career Development Center. The policies governing the administration of CLEP examinations are subject to change.

## Advanced Placement Program

The Advanced Placement Program of the College Entrance Examination Board (CEEB) allows Bowling Green, as a member institution, to give college course credit to entering students who achieve qualifying scores on proficiency examinations in a variety of academic areas. These





examinations are given in the high schools, following completion of college-level courses taught in the high schools. Bowling Green awards course credit and/or exemption in the following subject areas: art, biology, chemistry, English, foreign languages (French, German, Latin, Spanish), history (American and European), mathematics, music and physics.

## Off-campus programs

### National Student Exchange

The National Student Exchange offers students the opportunity to take course work at another college or university in the United States. The program encourages students to experience and learn from different regional and cultural perspectives, and to broaden their educational backgrounds, frequently through courses of study not available at their home campus. Bowling Green is a participating member of the NSE consortium of 60 state-supported colleges and universities.

Any qualified, full-time student may participate for up to one academic year. Out-of-state tuition fees are waived at the host institution and courses taken at the NSE institution count toward Bowling Green graduation requirements. Students must be sophomores or juniors at the time of exchange and have at least a 2.5 grade point average. Interested students should consult with the NSE coordinator about costs, course selection, choice of host university and planning the best time for the exchange.

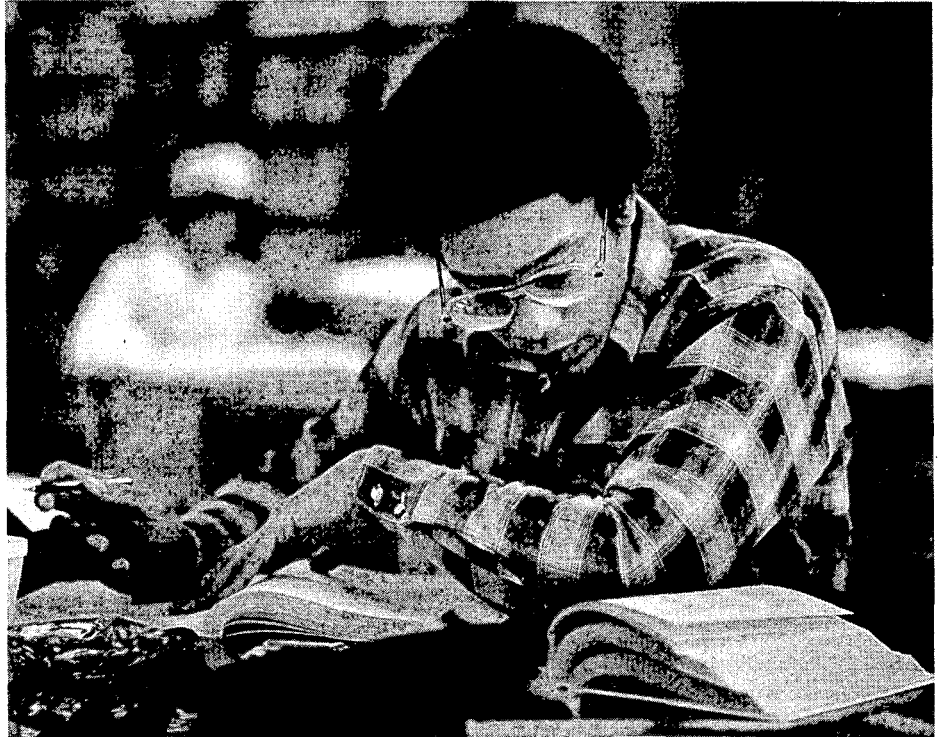
### International Student Exchange Program

The International Student Exchange Program makes it possible for students to enroll directly in higher education institutions throughout the world and apply credit earned toward their Bowling Green degrees. Costs of participating in the program are based on Bowling Green tuition, fees, room and board, so studying abroad through ISEP involves additional expenses only for travel and personal or incidental purchases. Credit arrangements for the academic work to be completed at the foreign institution are made before the student departs the University.

To qualify for ISEP a student must be full-time, in good standing and have sufficient proficiency in the language of instruction of the foreign institution to read textbooks, understand lectures, take part in class discussion and do written work. Most exchanges are for an entire academic year, although one-semester exchanges can be arranged at some institutions. Interested students should contact the ISEP coordinator for information on participating institutions, the application process and other program details.

### Washington semester

This highly competitive program offers a 15-week experience at The American University, Washington, D.C. It provides qualified students with a learning opportunity in



criminal justice, urban affairs, economic policy, American studies or foreign policy. Interested students can apply through the Center for Educational Options. The final selection of participants is made by a committee composed of three faculty members from different academic areas and a student who has participated in the Washington Semester experience.

### Washington internships

Through the independent studies program, students can participate in internships in Congressional, federal agencies and public interest group offices in Washington, D.C. Bowling Green is affiliated with the Washington Center for Learning Alternatives, a private, non-profit, educational organization which provides comprehensive instruction and support to students who are pursuing academically credited internships in the nation's capital. The program includes placement, orientation, evaluation, seminars, counseling, small group discussions, a lecture and debate series, special events, support services and centrally located housing. Interns typically answer constituent mail, do legislative research and prepare reports, attend meetings, hearings and briefings, and sometimes have the opportunity to participate in campaigns. Students combine the internship with a research project, usually working in the office four-and-a-half days a week and using the remaining time to develop and complete a research paper. This program provides excellent experience for any qualified student, but is particularly valuable for those majoring in prelaw, political science, social studies, journalism, economics and American studies.

### Independent study

This program enables students to earn from one to 15 credits (on an elective, S/U basis) for special work, travel or learning experience not normally handled through regular departmental courses. Working through the Center for Educational Options, students design their independent studies projects with the aid and supervision of faculty sponsors. While there is no minimum grade requirement, students must have completed their freshman year in order to participate in this program. Some recent independent study projects include: Internship with Women's Equity Action League (Washington, D.C.) Wig and Make Up Apprenticeship with San Francisco Opera Company Development of Hospice Program (Hancock County) Internship with Public Defender's Office (Washington, D.C.) Oceanographic Cruise Shrimp Research (Gulf of Mexico)

### High school college credit program

High school students may enroll in regular University courses and receive college credit by applying and being accepted for the High School College Credit Program. For high school students who possess general or specific academic talent, the program offers an opportunity to take course work which is unavailable at their own institutions. College credit is granted for satisfactory completion of these courses whether or not they are used to complete a student's high school requirements. Interested students may consult with the program coordinator about application requirements and course selection.

# Academic Support Centers

## Center for Environmental Research and Services

The Center for Environmental Research and Services, 124 Hayes Hall (372-0207), coordinates and facilitates multidisciplinary basic and applied research related to environmental needs and environmental monitoring. Programs involve students as well as faculty in field, laboratory, and library studies. Special services and training also are provided for both on-campus and off-campus audiences through workshops, conferences, and special lectures.

## Center for the Study of Popular Culture

The Center for the Study of Popular Culture is the national headquarters of the Popular Culture Association and the American Culture Association. The Center houses the Popular Press which publishes, among other works, *The Journal of Popular Culture*, *The Journal of American Culture*, the *Journal of Regional Cultures*, the *Journal of Regional Geography*, *Clues: A Journal of Detection* and houses the editorial office of the *Journal of Popular Film and Television*. The Popular Culture Library has extensive collections of popular literature, both fiction and nonfiction. These include a variety of comics, serials, paperbacks and magazines. The Sound Recordings archives section of the Music Library houses 75,000 LP records, 75,000 45-rpm discs, 35,000 78-rpm records, and 800 cylinder recordings. Among its collections are more than 2,000 hours of old radio shows, all inclusive discography holdings, and subscriptions to more than 80 popular music and recording industry periodicals.

## Drosophila Stock Center

The Drosophila Stock Center serves as a resource center for genetic research on an international scale. The Center, which maintains the world's largest stock of Drosophila fruit flies, is engaged in the study of such areas as the effects of industrial and environmental chemicals on genetic mutation. Drosophila specimens from the Center are provided to laboratories throughout the world.

## Management Center

The Management Center is the continuing education and consulting division of the College of Business Administration. It offers noncredit training and consulting services to organizations throughout the Midwest. Seminars are offered year-round on the

BGSU campus. Subjects frequently covered include time management, fundamentals of management, sales management, data processing, coaching and counseling employees, and fundamentals of accounting and finance.

## Center for Environmental Programs

The staff of the Center for Environmental Programs, 124 Hayes Hall (372-0207), is responsible for coordinating, facilitating, and monitoring a variety of academic programs relating to the environment. Four-year programs are available in the College of Arts and Sciences, the College of Education, and the College of Health and Community Services. In addition, one- and two-year programs in environmental health are available at the Firelands College. In cooperation with academic advisers in the various colleges, the Center staff assists students in selecting the program options that can best fulfill their goals and provides a comprehensive overview of all the options. An Environmental Resource Room (127 Hayes Hall) is maintained by the Center, in cooperation with the



Center for Environmental Research and Services. It contains current periodicals, technical information, general environmental literature, and curriculum materials for environmental education.

## Philosophy Documentation Center

The Philosophy Documentation Center collects, stores, and disseminates bibliographic and other types of information in philosophy. The Center's major publication is *The Philosopher's Index*, a subject and author index with abstracts of all major philosophy journals in English, French, German, Spanish, Italian and other selected languages, and other related interdisciplinary publications.

## Center for Archival Collections

The Center for Archival Collections, located on the fifth floor of the University Library, is responsible for preserving and making available to researchers archival and manuscript material relative to northwest Ohio, Great Lakes shipping, and the University. Much of this is maintained through an extensive microfilm program.

Among the materials available are local government records, newspapers, census records, photographs, and rare works concerning the 19 counties served by the Center, as well as photographs, books, pamphlets, and other Great Lakes materials. University Archives is responsible for the preservation and care of all BGSU institutional records deemed of historical value, including the *BG News*, yearbooks, and other University publications, as well as the records and correspondence of campus organizations and offices.

The Center also houses rare books and special collections which include the Eckman Poetry Collection, the Ray Bradbury Collection, and the Hubach-Whitman Collection.

## Center for Continued Learning

The Center for Continued Learning provides information, guidance and support for adults thinking of returning to school, entering employment or changing careers. Vocational and educational counseling, a career library, noncredit short courses, workshops, university referral and outreach programs are among the services it provides to adults in northwest Ohio. The center may be contacted through the continuing education, regional, and summer programs office, 300 McFall Center, (419) 372-0181.

# Admissions

## Freshmen

For admission to Bowling Green State University a freshman applicant must: 1. be a graduate of a senior high school approved or accredited by the department of education of the state in which it is located; or 2. have earned high school equivalency through the General Educational Development (GED) testing program (issued by the state Department of Education). A transfer applicant should refer to transfer admissions in this section of the catalog.

All non-native speakers of English are required to take the TOEFL test, or if unavailable, the Michigan Test. This requirement pertains to foreign students issued immigrant visas, to those transferring from another American college or university, to those (with English as a foreign language) coming from U.S. territories (e.g., Puerto Rico) and to those granted U.S. citizenship within recent years.

Applications for admission are accepted and processed each semester of the academic year and the summer session until the capacity of the freshman class is reached on the Bowling Green campus, and at the Firelands College campus, Huron, Ohio. High school students are encouraged to apply for admission beginning August 1 between their junior and senior years. Since housing accommodations and classroom facilities are limited, students are encouraged to submit their applications as soon after receiving them as possible. During the past several years admission to the Bowling Green campus has been closed to freshmen several months prior to the beginning of each semester and the summer session. To be considered for admission to the main campus, applications to the College of Business Administration must be submitted prior to December 15; applications to all other colleges should be submitted prior to February 1. Although the largest number of new students enters in August, it is possible to enter in the spring semester or the summer session. Applications must be submitted 30 days prior to the beginning of each semester or the summer session, and all admission credentials must be received by the Office of Admissions 14 days prior to the beginning of each semester or the summer session, in order to allow sufficient time for processing, notification, academic advising and registration for classes.



An application for admission may be obtained by writing to the Director of Admissions, Bowling Green State University, Bowling Green, Ohio 43403. The completed application must be submitted with a non-refundable \$25 application fee. A transcript of the high school record (at least six semesters) is to be attached by a guidance counselor to the completed application, housing card and application fee and then mailed to the Office of Admissions. If the freshman applicant has met high school equivalency requirements by completing the GED, both a transcript of the high school record and official results of the GED must be submitted.

Applicants who are unable to follow the above procedure should send the completed application, housing card and application fee to the Office of Admissions directly. A form for the high school transcript will be sent to the student when a completed application is received. This transcript form should be completed by the high school counselor or principal.

Freshman applicants are required to submit results of either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) unless the applicant has graduated from high school three or more years before the intended date of enrollment in Bowling Green State University.

As a condition of admission to the University and reflecting the educational philosophy of the institution, all freshman- and sophomore-level students are required to live in University residence halls except for students commuting daily from the home of a parent, legal guardian, or spouse (commuters must live within 50 miles of Bowling Green), or unless they have attained 60 academic semester hours or four semesters of campus residency on or before their first day of classes. See Housing, page 25.

For residency requirements for Ohio residents and nonresidents, refer to residency regulations under Fees and Charges, page 23.

**Recommended high school subjects**

Prospective students are strongly encouraged to complete the following minimum distribution of high school credits: four units of English, three units of college preparatory mathematics (for students planning to pursue a bachelor's degree program in business, four units of mathematics with at least two units of algebra are recommended), two units of social sciences, two units of science (one in a laboratory science) and six units of electives. At least two units of a foreign language should be included by the student who plans to pursue a degree program in the College of Arts and Sciences.

Correspondence pertaining to the admission of an undergraduate student to all colleges of the University except the College of Musical Arts should be addressed to the director of admissions. Those interested in music should address correspondence to the dean of the College of Musical Arts.

**Transfer students**

A transfer student who wishes to enroll at the University as an undergraduate uses the regular application for admission form. The application for admission must be accompanied by a nonrefundable \$25 application fee. The University requires a transcript of the applicant's high school studies from the principal or guidance counselor of the high school from which the student graduated, except in the case of a transfer student who has earned a baccalaureate degree from an accredited college or university. Transfer students are not required to submit American College Test (ACT) results.

An official transcript of credit is required from each college or university the student has attended. This transcript must be mailed to the director of admissions by the institution and is not accepted from the student. In addition, a transfer recommendation card must be completed by the personnel dean of the last institution attended and sent directly to the director of standards and procedures at Bowling Green State University. This card must be on file before formal admission can be granted. All admission credentials must be received by the Office of Admissions 14 days prior to the beginning of each semester or the summer session in order to allow sufficient time for processing, academic advising and registration for classes.

A student who has attended another accredited college or university and is in good standing is considered for admission:

1. if the student has earned an associate degree or at least 60 semester hours with an accumulative grade point average equivalent to a 2.0 in a 4.0 system; or,

2. if the student has earned less than 60 semester hours with an accumulative grade point average equivalent to a 2.5 in a 4.0 system.

A student whose accumulative grade point average is between 2.0 and 2.5 may be considered for admission upon petition. After the initial evaluation of the student's completed admission credentials, the Office of Admissions will send a petition form to the student.

Upon return of this form, an admission decision concerning a student in the petition range (2.0-2.5) is made by the dean of the college to which the student is applying in consultation with the director of admissions.

A student who cannot meet the above transfer admission policies and who has not attended another college or university for a period of one or more years may be considered for probationary admission by petitioning the director of admissions.

A person receiving probationary admission needs to reduce quality point deficiencies by as many as four points in order to continue the following semester. (See grade point average, page 9.) If academic and residence hall accommodations are not available, probationary admission may be available to the main campus for the summer session only. Generally, probationary admission to the Firelands College is available for either fall or spring semester or the summer session.

BGSU's School of Technology offers two upper division (junior/senior) programs designed specifically for transfer students. A transfer student who has received an associate degree with a technical specialization from an institution accredited either regionally or by the Ohio Board of Regents may apply for admission to one of these programs. When applying for admission, the student must request acceptance of the associate degree.

Some upper division (junior/senior) majors have additional transfer requirements. Transfer students should refer to the catalog description of their intended major program for additional requirements.

**Transfer of credit**

Credit earned at regionally accredited institutions or at publicly sponsored Ohio two-year institutions of higher education will be considered for transfer providing a grade equivalent to C or better was earned and a parallel course is offered by Bowling Green State University. (Note: Grades from transferred courses are not included in the accumulative grade point average or shown in the permanent record. However, they are included in calculating graduation with honors. See academic honors.)

An associate degree holder is accorded junior standing but the applicability of the transferred credit is dependent upon its relevance to the baccalaureate program pursued. A maximum of 64 semester hours of credit up to the awarding of the associate degree may be transferred from a two-year institution or from all institutions attended.

Entering transfer students should submit an official transcript of credits from previous institutions attended to the Office of Admissions. Students currently enrolled at Bowling Green State University taking course work at another institution should submit a transcript of this work to the Office of Registration and Records. A course-by-course evaluation is made by the Office of Registration and Records for those students who have a 2.00 accumulative grade point

average at BGSU and copies are mailed to the student and the appropriate college advising office. Associate degree holders will receive their copies of credit evaluations from the college advising office at the time of their registration appointments.

**Other admission categories****Foreign students**

Students from more than 50 foreign countries are enrolled at the University. Well qualified foreign students are welcomed. Their participation is eagerly sought to enrich educational opportunities for all students. Students from outside the United States interested in applying for admission as foreign students should write the Office of International Student Programs, Bowling Green State University, Bowling Green, Ohio 43403.

For admission purposes, applicants whose native language is not English are required to take an English proficiency test—either the official Test of English as a Foreign Language (TOEFL) or the official Michigan Test. Arrangements to take the TOEFL must be made by the applicant in direct communication with the Educational Testing Service, Box 899, Princeton, New Jersey 08541, U.S.A. Although the TOEFL is preferred, the University also accepts results of the Michigan test. Arrangements to take it must be made by the applicant in direct communication with the Testing and Certification Division, English Language Institute, The University of Michigan, Ann Arbor, Michigan 48109, U.S.A.

Upon reporting to the University and before registering for classes, all entering foreign students admitted through the Office of International Programs and the Office of Admissions, except those whose native language is English, are required to take additional English tests; foreign students transferring from other colleges or universities in the United States as well as students from Puerto Rico are also required to take these tests. On the basis of these tests, the University reserves the right to require enrollment either in ENG 100 (English as a Foreign Language) or in the Special Section for International Students of ENG 110 (Developmental Writing) and to limit the courses taken for credit.

**Evening and part-time students**

Prospective students who plan to take evening classes only (after 5:30 p.m.) can apply for admission to the Evening Program or, if space allows, enroll as unclassified undergraduate students (see next page) before seeking admission to the University.

**Concurrent enrollment**

Concurrent enrollment at Bowling Green State University and the University of Toledo allows a student with at least a 2.0 GPA to take courses at both universities and receive credit toward a degree. In order to be enrolled concurrently during a single term, a student must be registered for courses at both institutions. If a Bowling Green student





takes all courses at Toledo during a single term, then that student must register at the University of Toledo as a transient student. See transient students, page 21.

Under this policy, the university that has most recently granted formal admission to the student is designated as the home university. The other university is the host institution.

A student registering for 12 hours or more of course work, at least eight of which are at the home university, shall pay all fees to the home university. If a student registers for fewer than 12 hours, instructional, general and nonresident fees are to be paid at the separate universities. (Special course fees are payable to the teaching institution.)

All course work taken under concurrent registration will be registered at the home university and will be considered by that university as resident credit. It will be included in the calculation of a student's grade point average. Seniors within the last 30 hours before graduation must receive permission from their deans before enrolling concurrently in courses at the University of Toledo.

Course work completed at the University of Toledo may not be used to delete F's and other low grades previously earned at Bowling Green State University in grade point average computation.

Concurrent enrollment forms are available through the Office of Registration and Records of either institution.

### **Unclassified degree holder**

A student who has an earned degree in higher education and who wishes to enroll in undergraduate courses without pursuing another degree is classified as an unclassified degree holder. *An unclassified degree holder is required to apply for enroll-*

*ment each term.* The only requirements for this type of student are official confirmation from the appropriate institution of the highest degree received and available classroom space.

### **Unclassified undergraduate student**

A student who has not attended another college or university and who is not a candidate for a degree may be considered for enrollment as an unclassified undergraduate student. Unclassified students will register at a time announced by the Office of Registration and Records (approximately two weeks prior to the beginning of any term). *An unclassified student must apply for enrollment each term.* Courses are offered on a space available basis after advance registration has been completed. An unclassified undergraduate student is limited to 18 credit hours of work attempted before applying for formal admission to the University. An unclassified student is not required to submit a high school transcript (although the student must be a high school graduate) or American College Test results.

### **Readmission of former students**

A student who has not been in continuous attendance during the regular academic year (excluding the summer session) must complete the application for readmission form and submit it to the Office of Registration and Records. A copy of this form may be obtained by writing to the registrar. The readmission of a former student is based on past academic and personal records at the University and by the availability of facilities. A former student who has transferred to another college or university since the last enrollment at Bowling Green State University

may be considered for readmission and must submit the application for readmission form and a complete transcript and provide evidence of good standing, both personal and academic, at the institution last attended. A 2.0 accumulative grade point average (on a 4.0 system) is required.

### **Transient students**

A student of another college or university who wishes to earn credits at Bowling Green State University may be enrolled as a transient student. The student must present an official statement from the institution being attended that certifies eligibility to enroll at the home institution and that the credits earned at Bowling Green are acceptable as part of the program there.

The above principle applies to a student of Bowling Green attending another college or university as a transient student. Permission to attend other universities as a transient student is granted only to students who have at least a 2.00 accumulative grade point average at BGSU. Grades earned as a transient student at another college or university do not become part of the student's record at BGSU, but they are included in calculating all honors.

Transient students will register at a time announced by the Office of Registration and Records (approximately two weeks prior to the beginning of any term). *A transient student must apply for enrollment each term.* Courses are offered on a space available basis after advance registration has been completed. A transient student is limited to 18 credit hours of work attempted before applying for formal admission to the University. Transient students are not required to file a transcript of previous college credit.



# Registration and Records

The Office of Registration and Records, 110 Administration Building, is responsible for each student's class registration and academic record. In addition, the schedule of classes is compiled by this office with the assistance of academic departments and colleges. The office is also responsible for commencement programs and receives applications for graduation. Other services provided are the evaluation of transfer credit, certification for benefits under the Veteran's Education and Social Security Acts, issuance of student transcripts, readmission of former students, admission of classified and transient students, certification for eligibility in athletics, membership in honor societies, clarification of residency, processing of credit-by-exams and various other student-related functions.

## Identification card

Identification cards are issued to all fully admitted and paid students each term. This nonphotograph card verifies enrollment in the particular term and includes the student's name, identification number, class, college, hours registered, term and year. These cards are only issued to students determined by the bursar to have paid accounts. Cards are distributed through the mailboxes in the residence halls and the on-campus mailboxes for all undergraduate students.

Unclassified and transient students are not issued student identification cards except on request. Identification cards may be replaced if lost. A \$2 service charge is assessed. Spouse identification cards provide the spouse library and theater privileges and are available for a \$10 service charge.

If the information on the identification card is not correct, the student should contact the bursar's office since the card is used for various identification purposes. Any cracked or defective card may be returned to the office for replacement at no charge.

## Transcripts of credit

An official transcript of a student's record is used only for transferring credits to other colleges and universities and for transmitting information to certifying agencies and employers. An official transcript is issued *only at the written request* of the student. A charge of \$2 is made for each transcript and should be included with the request. A transcript is not released for a student who is delinquent in any financial obligation to the

University. Requests should be submitted at least 48 hours in advance to the Office of Registration and Records, 110 Administration Building (104 East Building at Firelands).

Transcripts from other institutions that have been presented for admission or evaluation become part of the student's permanent academic file and are not returned nor copied for distribution. Students desiring transcripts covering work completed elsewhere should request them from the institutions concerned.

## Academic load

A full-time student normally should be registered for 15 to 16 hours per semester. The academic load of a regular undergraduate student should not be less than 12 hours at any time. Enrollment for more than 18 hours requires the approval of the office of the dean of the college in which the student is enrolled; such enrollment will be reviewed in accordance with the policies of the respective college. A full-time undergraduate is defined as a student registered for 12 semester hours.

## Registration schedule

Since late entrance is a handicap to academic achievement, every student is expected to register for classes during the time announced for registration. Continuing students receive registration materials in the mail during the seventh week of the fall semester, or the 14th week of the spring semester. The registration requests are received at the Office of Registration and Records for two weeks following distribution of registration materials, and students are notified of their schedules prior to the succeeding term. (This does not apply to Firelands students.)

Anyone who fails to take advantage of the advance registration system is allowed to register up until the first day of classes without being charged a late fee. Any student going through this open registration, however, is limited to requesting only those classes that still have spaces available.

No student entering after the end of the first week of a term is permitted to carry a full program of courses without the permission of the dean of the college in which the student is enrolled.

## Drop/add

After the registration period has been completed, all changes must be processed at the Office of Registration and Records in

accordance with the policy of the college in which the student is enrolled. An undergraduate may enroll in a course within seven calendar days from the beginning of classes in any semester. After this time, a student may add a course only with permission of the college dean.

A student may change the grading option (graded or S/U) for a specific course only during the first seven calendar days of a given semester. Twenty-one calendar days are allowed for a student to withdraw from a class at the Office of Registration and Records with no record on the transcript. After these dates, exceptions may be granted only by the dean of the student's college.

An undergraduate who drops a course during the fourth through the ninth week of a semester receives a grade of WP (withdrawn passing) or WF (withdrawn failing) according to the student's standing in the course. A grade of WF is assigned to courses dropped after the ninth week of a semester and to courses that the student ceases to attend without permission. Any student terminating attendance in an S/U course without officially dropping the course or withdrawing from the University will receive a WF.

See change of registration charge under fees and charges, page 24.

## Audit

A student who wishes to attend a class without receiving credit for it may register to audit that course. A per-hour instruction fee is charged as if the student had registered for the course for credit. Audit (no credit) registration must be indicated for the appropriate course(s) before the first day of classes. A student may not change from audit to credit registration, and vice versa, during the given term.

# Fees and Charges

State appropriations currently provide less than one-half of the cost of instruction. The remainder is financed by student fees and other charges and contributions. The General Assembly appropriates no funds for meals and rooms or for various student services and activities provided by the University. Such services and activities are financed from student fees and charges.

The fee schedule for the 1982-83 academic year had not been established when this publication was printed. In 1981-82 the undergraduate fees were \$1,473 per academic year (\$1,155 in instructional fees and \$318 in general fees). Out-of-state students paid a surcharge of \$1,755.

A student who is an Ohio resident and is enrolled for 11 or more credit hours pays fees as a full-time student.

A student who is an Ohio resident and is registered for 10 credit hours or less pays on a per-credit-hour basis.

A nonresident student pays an additional per-hour nonresident fee.

If a student drops a course which reduces the fee status from full-time to part-time, the hourly rate schedule will be applicable to the remaining hours.

During any semester when a student is registered for a combination of main campus (including extension) and branch or resident credit center courses, fees are determined as follows: if the number of main campus credit hours equals or exceeds the off-campus credits, the main campus fees are charged for all courses. Off-campus rates apply when branch and resident credit center credit hours exceed the main campus credits.

The instructional fee, supplemented with state appropriations, finances the instructional programs of the University. The general fee finances the many student services and activities offered on campus.

A previously enrolled student may be denied readmission after payment of fees for several reasons, one of which is failure to maintain a satisfactory academic standing. In such cases a full refund is made of fees paid for that academic term.

The Board of Trustees reserves the right to make any changes or adjustments in fees or charges when such changes are deemed necessary.

See Housing, page 26 for room and meal plan charges.

## Nonresident fee regulations

A student classified as a nonresident of Ohio for fee purposes who is entering or reentering the University is assessed a nonresident fee in addition to the instructional and general fees.

The responsibility of indicating proper residence at the time of registration is placed upon the student. If there is any question regarding the student's state of residence, the Residence Status Review Committee in the Office of Registration and Records, 110 Administration Building should be contacted. Any student who registers improperly with respect to legal residence under the rules identified below shall be required to pay all applicable nonresident fees. Students who fail to pay this fee within 30 days after having been notified of the assessment may have their registration in the University automatically nullified.

The University reserves the right to make a final decision in any case of disputed residence for the student as a condition of admission. In determining the student's proper residence, University officials use the following regulations as approved by the Ohio Board of Regents on December 20, 1977.

### C. General residency

The following persons shall be classified as residents of the State of Ohio for subsidy and tuition surcharge purposes:

1. Dependent students, at least one of whose parents or legal guardian has been a resident of the State of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.

2. Persons who have resided in Ohio for all other legal purposes for at least 12 consecutive months immediately preceding their enrollment in an institution of higher education and who are not receiving, and have not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.

3. Persons who reside and are gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who are pursuing a part-time program of instruction at an institution of higher education.

4. Persons who have been reclassified as residents under the provisions of Section D7 of this rule.

### D. Specific exceptions and circumstances

1. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.

2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

3. Any alien holding an immigration visa shall be considered a resident of the State of Ohio for state subsidy and tuition surcharge purposes in the same manner as any other student.

4. No person holding a student or other temporary visa shall be eligible for Ohio residency for these purposes.

5. A dependent person classified as a resident of Ohio who is enrolled in an institution of higher education when his or her parents or legal guardian remove their residency from the State of Ohio shall be considered a resident of Ohio for these purposes during continuous full-time enrollment and until his or her completion of any one academic degree program.

6. In determining residency of a dependent student, removal of the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph C1 of this rule.

7. Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency in Ohio for all other legal purposes, may apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes. Should such person present clear and convincing proof that no part of his or her financial support is, or in the preceding 12 consecutive months has been, provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this Rule shall be made by the institution which may require, among other things, the submission of information regarding the sources of a student's actual financial support to that end.

8. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.

9. A person who is transferred by an employer beyond the territorial limits of the 50 states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

10. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

### Definitions

For purposes of this Rule:

1. A "resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code; provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.

2. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.

3. An "institution of higher education" as used in this rule shall mean any university, community college, technical institution or college, general and technical college, medical college or private medical or dental college which receives a direct subsidy from the State of Ohio.

### Graduate fees

For complete information regarding graduate fees consult the *Graduate Catalog*.

### Other fees, charges and deposits

An **application fee** of \$25 must be paid at the time the application for admission is submitted by a new undergraduate student. This fee is nonrefundable.

A **change of registration charge** of \$5 is made for any change in registration made on or after the first day of classes at the Office of Registration and Records unless the charge is waived by the dean of the college in which the student is enrolled.

A **late payment charge** of \$5 is made for each day including Saturdays and Sundays that a student is late in paying fees at the opening of a semester or summer term.

An **automobile registration charge** of \$19 a year (fall semester through summer session) is required of each student who registers an automobile with the Parking

Services Office. Each automobile on campus must be registered and its decal displayed in accordance with instructions. Firelands students are required to register their automobiles at Firelands where the registration charge is \$5 per year.

A **credit by examination charge** of \$30 is assessed for each special examination.

A **proficiency examination charge** of \$5 is made for special examinations in typing and shorthand which are administered by members of the business education staff for a person seeking to qualify for civil service or other positions.

A **transcript charge** of \$2 is made for each transcript of credits.

A **student teaching laboratory fee** of \$50 is required during the semester in which student teaching is done.

Any student may register for **audit credit** (no credit) in any course offered in the current schedule of classes. Fees for audit hours will be charged at the rate of the already established University fee structure equivalent to the regular credit hours of registration.

An **excess credit fee** of \$22.50 is charged beginning with the 19th credit hour taken each semester and continuing for every hour thereafter.

Special **music fees** will be charged those participating in the following courses:

Applied music private lessons	\$30/credit hour
Applied music classes	\$15/credit hour
Music major equipment fee MUED 402	\$10/semester
Tools for piano tuning	\$15/course
	variable

A student enrolled for applied music has access to practice rooms and equipment without charge (other than above) in accordance with the schedule and regulations determined by the College of Musical Arts.

A **driver education fee** is charged, \$15 for students in HED 362 and \$10 for students in HED 462.

A **physical education fee** is charged those participating in the following courses at the rates indicated:

Billiards	\$7.50
Bowling	\$12.50
Beginning golf	\$5
Intermediate golf	\$10
Advanced golf	\$20
Ice skating, curling, hockey	\$10
Scuba diving	\$10
Skiing	\$65
Horsemanship (western)	\$100
Horsemanship (English)	\$100

The student is held responsible for apparatus lost or damaged and for materials wasted in laboratory classes. The student pays for all materials used in making articles or items that become personal property.

The Board of Trustees reserves the right to make any changes or adjustments in fees or charges when such changes are deemed necessary.

### Payment of fees

All fees and charges are payable in advance of the semester for which the student is enrolled. The final date for payment

of fees for each semester is the last weekday before the official date for the beginning of the semester. A student paying fees after the last day designated for this purpose at the opening of a semester (including summer) is assessed a **late payment fee** of \$5 for each late day including Saturdays and Sundays to a maximum of \$25.

Fees are payable at the bursar's office on the first floor of the Administration Building between 8 a.m. and 5 p.m. Checks and money orders are accepted if they are made payable to Bowling Green State University for the exact amount required for the payment of all fees. At Firelands, fees are payable at the Office of Registration.

For a student desiring to use a credit card system, Master Card and Visa are honored by the University.

### Refund of fees

In the case of voluntary withdrawal of a student from the University in any semester, fees, except for the application fee, are refunded on the following basis: during the calendar week in which classes begin, 90 percent; during the second calendar week, 80 percent; during the third calendar week, 60 percent; during the fourth calendar week, 40 percent; after the fourth week, no refund. A student withdrawing under discipline forfeits all rights to the return of any portion of fees. However, in the event of academic dismissal, all monies prepaid for a semester are refunded in full. This schedule pertains to instructional, general, and nonresident fees (where applicable); a separate refund schedule for room and meal plan charges is outlined in the housing contract-acceptance agreement. No deduction is granted because of late entrance.

If a student drops a course which reduces the fee status from full-time to part-time, the hourly rate schedule will be applicable to the remaining courses. Any refund is subject to the percentage refund schedule.

In a change of program involving the dropping of a course in which a special course fee has been paid, the fee is refunded in accordance with the schedule given in the preceding paragraph unless the dean of the college in which the student is enrolled authorizes different action. Refunds normally take a minimum of four weeks to be processed.

### Charge cards

Personal charges at the University can be paid not only by check or cash but also by Master Card and Visa. Any questions should be directed to the bursar's office.

# Housing

## Residence Halls

Bowling Green is primarily a residential University, and more than 8,000 undergraduate students live in residence halls.

University residence halls provide a physical environment designed to further the academic, cultural and personal development of the resident students. A wide range of living options is available to students and a wide variety of educational and social programs are offered.

Undergraduate students are required to reside in University-owned living units as a condition of enrollment unless they are commuting daily from the homes of their parents, guardian, spouse, or unless they have attained 60 earned academic hours and/or four semesters of campus residency on or before the first day of classes for fall.

For the purposes of this regulation, a home is defined as the actual and regular place of residence in the community in which the parent, guardian, or spouse is eligible to register to vote. A guardian is defined as a person awarded legal guardianship by a court of competent jurisdiction. The housing acceptance agreement is a contract for the entire academic year. A student must be in compliance with the University housing policy as a condition for applying to be an exception to the policy.

Accommodations in University residence halls are available to any University student regardless of race, religion, creed, color, national origin or handicap. The University expects landlords of off-campus accommodations to practice this same nondiscriminatory policy.

The University Housing Office, 440 Student Services Building (372-2011), is responsible for the assignment of all students to campus housing accommodations. This office processes all housing applications and roommate requests for assignment to the 21 residence halls and 29 sororities and fraternities on campus. Issuance and cancellation of University meal coupons are also coordinated through this office.

The Office of Residence Life, 425 Student Services Building (372-2456), is responsible for the operation, staffing and programming of all campus living units, including sorority and fraternity houses. A trained residence hall staff including undergraduate resident advisers (R.A.'s) are present to help students derive the fullest possible benefits from the residence life experience.

## Housing regulations

### Responsibility for personal effects

During a student's residence in a hall, every effort is made to provide adequate supervision. However, the University cannot assume responsibility for loss or damage to personal effects of the student or guests of the University. If a student's parents have a blanket homeowner's insurance policy, the student's personal effects may be listed and covered in such a policy.

Generally, each room is completely furnished except for linens, pillows, blankets and personal toiletries. A linen rental service is available to students.

For detailed information regarding services and accommodations available contact the University Housing office.

### Occupancy of rooms

Each student is required to vacate and remove personal belongings from the residence hall within 24 hours after the close of final examinations for the spring semester, except for the student who receives a degree at the May commencement. Such a student may remain in the University residence up to a designated hour on commencement day.

A student in good standing with the University is not required to clear the room of possessions at the close of the fall semester unless that person has failed to acquire a paid housing reservation for the succeeding semester. A resident who has not paid for additional accommodations, however, is required to vacate the room and remove personal belongings within 24 hours after the close of semester examinations.

The University undertakes at all times to maintain pleasant living conditions in all its residence halls, and the right is reserved to remove an occupant at any time for violations of University and/or residence halls policies, rules and regulations. Anyone found residing in University facilities who has not paid for accommodations, who is not a lawful resident of that facility or who is found in a closed building may be charged with trespassing.

### Vacation periods

During the vacation periods, the residence halls are not open to students. A student remaining over the Thanksgiving and spring recesses or between semesters needs to make special arrangements for off-campus housing during these periods. The University Housing Office can assist in making these



arrangements. The University reserves the right to assign, inspect, maintain and make repairs in residences any time during the school year.

#### Change of university address

If, for some reason, a student should find it necessary to change his or her campus address, such a change must be registered and approved by the University Housing Office in advance of the proposed move.

### Off-campus housing

The Student Consumer Union, 405 Student Services Building, maintains a list of rooms and apartments that are recognized as adequate in terms of health, safety and nondiscriminatory standards. It also maintains a mediation service to help resolve tenant-landlord disputes, and a counselor is available to assist off-campus students with any difficulties they may have.

A student who lives off campus does so accepting individual responsibility. The University does not undertake to provide social and educational opportunities or the supervision furnished in University residence halls to students residing in off-campus housing. A contractual arrangement exists between the student and the landlord exclusive of the University.

As a condition of enrollment, an off-campus student is expected to register his or her correct community address with the Housing Office before the payment of fees.

### Room and meal plan charges

A student who wants to live on campus must apply for housing and sign a residential contract in the spring before the opening of the fall semester. Dates and procedures for payment are outlined in the contract.

Four housing plans, with several different rates, are available to students regardless of class rank as long as space is available. Priority of assignments is given to continuing upperclass students with seniors, juniors, sophomores and incoming freshmen assigned in that order. Returning former students are assigned with new incoming students.

*Plan I* includes Conklin Hall and McDonald North. Students living in these residence halls are not required to purchase the meal plan. Double occupancy rate is \$514 per semester or \$1,028 per academic year. The single occupancy rate is \$656.50 per semester or \$1,313 per academic year. These rates are for room only.

*Plan II* covers these residence halls: Kreisler, Harshman, McDonald East and West, Founders, Rodgers, Kohl, Prout, and Alpha Phi Alpha. This rate also applies to students living in Conklin and McDonald North Halls who are taking part in the basic meal plan program. Multiple occupancy rates, including the basic meal plan, are \$878 per semester, or \$1,756 per academic year. Single occupancy, including the basic meal plan, is \$1,020.50 per semester, or \$2,041 per academic year.

*Plan III* applies only to Offenbauer East and Offenbauer West. The rate for double occupancy, including the basic meal plan, is \$957.50 per semester, or \$1,915 per academic year. A single occupancy room with the basic meal plan is \$1,107.50 per semester, or \$2,215 for the academic year.

*Plan IV* is for the room-only rent for fraternities, sororities, and the French House. These rates are \$542.50 per semester, double occupancy (\$1,085 per academic year). Since most Greek houses operate their own dining facilities, the University collects only room rent, leaving the various groups to collect their own meal plan charges.

These are suggested rates for the 1982-83 academic year only and are subject to change as economic conditions warrant.

Additional information regarding living options and rates can be obtained from the University Housing Office, 440 Student Services Building, 372-2011.

#### Payment schedule

Since arrangements for residence on campus must be made before the opening of fall semester and the University wishes to accommodate as many students as possible, a forfeiture schedule for late cancellations is maintained. This schedule appears in the acceptance agreement which is provided when the residence hall contract is accepted. The acceptance agreement should be read thoroughly by both student and parents or guardian and retained for future reference. A residential contract card accompanies the agreement. It must be signed and returned with the initial payment, indicating acceptance of the provisions of the agreement. Payment may be made in full for the entire academic year or in accordance with a deferred plan described in the acceptance agreement. The initial payment date appears on the residential contract card.

#### Refunds

Adherence to the payment schedule is a prerequisite for admission. Should it be necessary to withdraw from the University after the acceptance agreement has been executed, the refund schedule outlined in the agreement is followed.

For information regarding other fee refunds see fees and charges, page 23.

#### Meal plan

The flexible meal coupon system gives students a choice of what, when, and where they may eat and of how much they may select at each meal. There are six dining halls located on campus offering five to eight entrees at each meal, special hot and cold sandwich lines, and a salad bar at lunch and dinner. The Towers Inn (steak house) and Strawberry Patch (pancake house) are seated facilities catering to coupon customers. Two snack bars are also located on campus for student convenience.

Meal plan rates listed are 1982-83 rates and are subject to change as economic conditions warrant. Five meal plans are available. In *Plan A*, for the basic charge of \$364 per semester, a student receives four books of coupons, which will meet less than 50

percent of an average, college-age person's daily food needs. Four additional plans are available. In *Plan B*, \$437 per semester, a student receives five books which will meet approximately 65 percent of the average, college-age person's daily food needs. *Plan C*, \$510 per semester, and *Plan D*, \$583 per semester, are the plans recommended by the Residence Dining Services staff as best meeting the nutritional needs of the majority of college students. *Plan E*, \$656 per semester, is designed primarily for athletes and for people who enjoy the restaurant dining experiences. All coupon books beyond the fourth book are offered at a discount.

Coupons are treated the same as cash and should be handled accordingly. In each book there are \$91 worth of coupons, which range in value from five cents to one dollar and which are used to pay for each item a student selects from the menu. Additional coupon books may be purchased at the Bursar's Office.

To obtain coupon books a student must pick up an authorization card at the front office of the residence hall. The authorization card must then be presented at the proper cafeteria with two pieces of identification. Cafeteria personnel will accept drivers licenses or University identification cards as ID's. To help insure that a coupon book will be returned in case it is lost, the student should write his or her name, address and telephone number on each book.

If a student finds that the meal coupons cannot be used each semester, the option is available of selling the coupons to other students. Because of fixed operating costs, the University cannot refund unused coupons each semester. Guests are welcome in the dining halls and their meals can be purchased with coupons or cash.

The University Food Service provides a large food selection to give students the opportunity to choose a balanced diet to their liking. Students on special diets can be accommodated if a statement from a physician indicates the type of diet to be followed and supplies the food service staff with a copy of the diet.

Students have the opportunity to contribute ideas to the food service management. Questions should be directed to individual dining hall managers or the director of Residence Food Service, 200 Centrex Building, 372-2891.



# Financial Aid

All types of financial aid are coordinated through the University's Office of Financial Aid and Student Employment. The staff is also available for financial aid counseling.

Each student and the student's family are responsible for a reasonable contribution to the cost of the student's education. However, students may require financial assistance. Financial aid is generally limited to full-time students, but part-time undergraduate students may be eligible for Pell Grants.

To apply for financial aid, students must file a BGSU application for financial aid and a financial statement. BGSU applications for financial aid are available in the Office of Financial Aid and Student Employment, Admissions Office, and the Firelands Financial Aid Office. A financial statement may be obtained from high school guidance counselors or any of the above offices.

Prospective freshmen who complete the forms by February 1, and are fully admitted to BGSU by March 1, will be notified in April about their financial aid awards. Late applications will be considered separately. Awards are made depending on the availability of funds and the terms and conditions of controlling legislation, regulations, and policies.

For more information about the types of financial aid and eligibility criteria, see the financial aid brochure available from the Office of Financial Aid and Student Employment or from the Admissions Office.

## Assistantships

Qualified juniors and seniors may apply to individual departments to become undergraduate assistants. Upperclass students are also employed as residence hall advisers. Information about residence hall advisers is available in the residence halls or in the Residence Life Office.

## Employment

A variety of student employment opportunities are available both on and off campus. The Student Employment Program Office (460 Student Services Building) posts job openings and refers applicants for interviews with prospective employers. Campus employment is available to undergraduate students who are enrolled for at least six credit hours per semester. Students typically work as clerks, custodians, receptionists, typists,

and food service employees. A listing of summer job opportunities is also available from the Student Employment Program Office.

Students in need of financial assistance may be eligible for the College Work-Study Program, financed partially by a federal grant. A student's eligibility for this program is determined by the Office of Financial Aid and Student Employment.

## Grants

### Pell (Basic Educational Opportunity) Grant

The Pell Grant program is the largest of the federal grant programs. It is designed to assist needy students to continue their education beyond high school and to provide a base of financial aid. The amount of the grant is determined by the student's need and the cost of attendance. Graduate students are not eligible. Students should indicate that they wish to be considered for the Pell Grant when filing the financial statement. A separate Pell Grant application is also available.

### Ohio Instructional Grant

Students must apply for this grant by filing an OIG application which is available from high school guidance counselors, the Office of Financial Aid and Student Employment, or the Ohio Board of Regents (30 East Broad Street, Columbus, Ohio). Students must be Ohio residents and enrolled for at least 12 credit hours.

### Supplemental Educational Opportunity Grant

Students who file the required financial aid forms are considered for this federal grant, which is awarded to students with demonstrated financial need.

### Talent Grants-in-Aid

Talented students in art, athletics, music, or speech may be eligible for these University-administered grants. Application should be made to the specific department.

## Loans

### Guaranteed Student Loans

These are long-term loans with nine percent interest rates. Students may borrow up to \$12,500 as an undergraduate. Interest on the loan is paid by the federal government while the student is in school. Repayment begins six months after the student leaves the University. Application is made directly to a bank or other lending institution that participates in the GSL program.

### National Direct Student Loans

These are long-term loans with five percent simple interest rates. Students may borrow up to \$6,000 as an undergraduate. Interest on the loan is paid by the federal government while the student is in school. Repayment begins six months after the student leaves the University. Students who file the required financial aid forms are considered for this loan program.

### Short-term loans

The University has funds available for short-term loans to students for educational expenses and personal emergencies. Emergency loans are available up to a maximum of \$75 for a period of one month without interest. A student may receive a larger loan, to be repaid within six weeks at four percent simple interest. These loans are not available to first-semester freshmen. Application is made at the Office of Financial Aid and Student Employment, 450 Student Services Building.

## Scholarships

A limited number of academic scholarships are available to undergraduate students, regardless of need, who have outstanding scholastic records. Other scholarships are awarded on the basis of academic achievement and need. Information on scholarships may be obtained in each of the college offices, the Office of the Dean of Students, and the Office of Financial Aid and Student Employment.

# Organizations and Activities

The Office of Student Organizations and New Student Programs, 405 Student Services Building (372-2843), is the center for student body government, campus organizations, the coordination of social programs and Freshman Pre-Registration and Orientation, all of which are designed to aid the total development of the student at Bowling Green.

## Organizational regulations

Students are free to organize and join associations to promote their common interests providing these associations are organized for legal purposes and do not conflict with the University's educational objectives.

The Director of Student Organizations and New Student Programs will register social, service, special interest and professional organizations based on the following policy:

1. Affiliation with an extramural organization will not of itself disqualify a student organization from institutional registration.

2. Campus advisers who are members of the faculty or staff are required for any organization receiving University funds. They are encouraged for all other organizations. Campus advisers may counsel organizations in the exercise of responsibility, but they will not have authority to control the policy of the organization.

3. Student organizations will be required to submit a statement of purpose, criteria of membership, rules of procedures and a current list of officers. They will not be required to submit a membership list as a condition of registration.

4. Organizations, including those affiliated extramurally, must be open to all students without respect to race, creed, national origin, age, sex, political views or handicap.

For a current list of campus organizations and activities, contact the Office of Student Organizations and New Student Programs, 405 Student Services Building, 372-2843.

## Student Government

The Undergraduate Student Government provides the student with a wide range of opportunity for responsible participation in the government of the University community and gives the University the advantage of student views and experience in arriving at the soundest possible policies and practices with respect to issues relating directly to each student enrolled in the University. All councils and boards of the Undergraduate

Student Government have available the advice of faculty members or administrative officers of the University.

In addition to the Undergraduate Student Government, the qualified student may serve on other policy-determining and administrative councils and committees of the University.

## University Activities Organization

All students may participate in planning and organizing social, cultural and educational programs for the University community through the University Activities Organization.

The entire organization is involved with such events as Homecoming, the University's Mardi Gras celebration and Good Times Weekend. There are 14 committees: administrative, campus films, Side Door entertainment, exhibits, games, mini-courses, news and views/lectures, outdoor recreation, performing arts, publications, publicity, public relations, special events and travel.

The University Activities Organization provides students with the opportunity to organize functions affecting the entire student body while developing leadership skills.

## Athletics

### Intercollegiate athletics

Participation and excellence are the primary goals of Bowling Green intercollegiate athletics. As part of the largest total-sports program in the Mid-American Conference, nearly 1,000 men and women compete for championship recognition each year on 23 varsity teams.

Men's and women's teams exist in basketball, cross country, golf, swimming, tennis and indoor and outdoor track. Men compete in football, baseball, hockey, soccer and wrestling, while women compete in gymnastics, field hockey, volleyball and softball.

Club sports include cricket, fencing, flying, gymnastics, hockey, karate, lacrosse, orienteering, riflery, rugby, sailing, skating, skiing, soccer, table tennis, volleyball, water polo and weight training.

The University is a member of the National Collegiate Athletic Association (NCAA) and the 10-university Mid-American Conference (MAC). Bowling Green competes regularly with nationally prominent teams from other major conferences.

To be eligible for intercollegiate athletic competition, a student must meet various academic standards established by the University, the NCAA and the MAC, as appropriate. When a student becomes involved on any of the teams that compete in intercollegiate contests, it is assumed that consent to do so has been received from the student's parents or guardian. Every precaution is taken to safeguard the health of the student athlete, and a physician is generally present at intercollegiate contests in the more rigorous sports.

### Intramural and recreational sports

The intramural and recreational sports program offers a wide variety of activities for men and women including badminton, basketball, bowling, golf, handball, hockey, racquetball, soccer, softball, swimming, touch football and volleyball. Many of these are offered as coed sports. Information regarding these and other activities may be obtained at the intramural office, located in 201 Memorial Hall, and the Student Recreation Center from 8 a.m. to 5 p.m. daily.

### Athletic facilities

Athletic facilities at the University include: an 18-hole golf course; an ice arena; 25 outdoor tennis courts; the Eppler Physical Education complex; 5,200-seat Anderson Arena; 30,000-seat University Stadium; Steller Field, which seats 2,000 for baseball; Whittaker Track; numerous activity and practice fields; and the Student Recreation Center (see below).

## Student Recreation Center

The Student Recreation Center, with its two swimming pools, 14 handball/racquetball courts, running track, saunas and courts for basketball, volleyball, tennis and badminton, among other facilities, is the focal point for campus sports and recreational activity.

All registered full-time students may use the center as often as desired. A usage fee is included in the general fee paid each semester. Part-time students must pay a pro-rated usage fee. Special plans for spouses and children of students are available. For more information, contact the center or consult the Student Recreation Center brochure.

## Firelands College Organizations

See Firelands College section for a description of organizations and activities there.

# University Services

## Academic Services

Bowling Green State University provides a variety of academic services to assist students in their educational development.

The Language Laboratory, located in 302, 303 and 304 University Hall, serves the Romance Languages and German and Russian Departments, and occasionally English and Asian studies, providing intensive instruction in foreign language. Listening, recording and audio-visual facilities are available. Students may use the laboratory through their foreign language classes as well as during open hours. Laboratory personnel include assistants proficient in one or more languages who supervise and aid students.

The Developmental Learning Center, 101 University Hall, is an academic supportive service consisting of the following components: courses offered cooperatively with other departments to provide instruction in basic skills, tutoring and learning laboratories for reading, writing and mathematics.

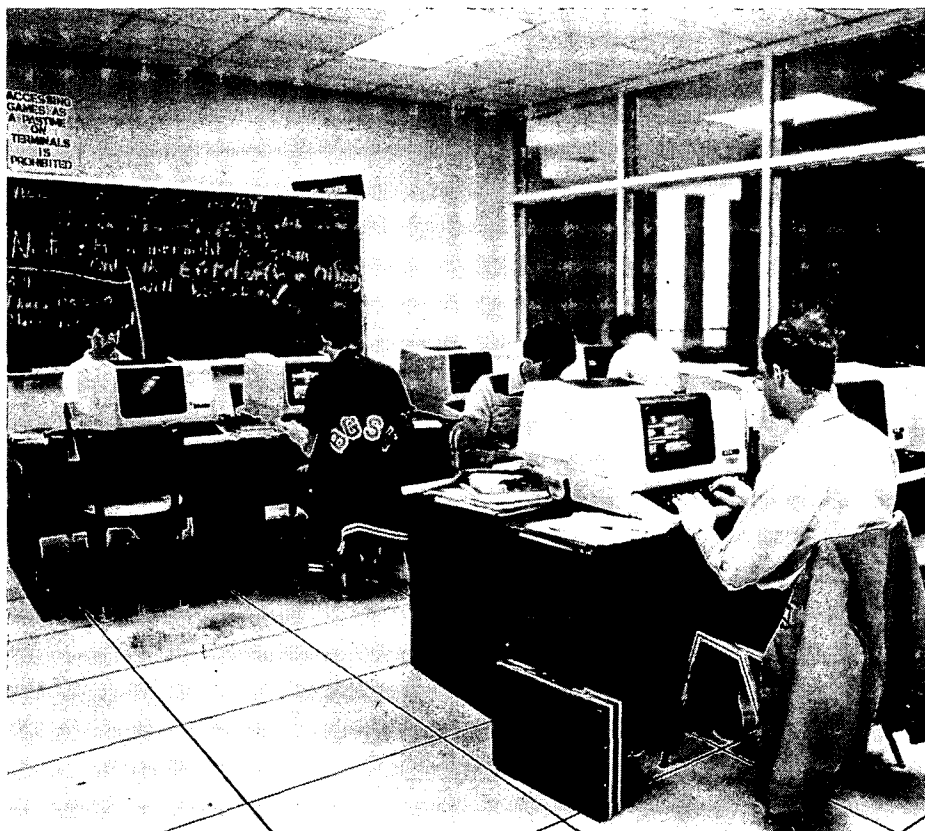
The Reading Center, 576 Education Building and the Reading Laboratory, 101 University Hall, cooperatively provide diagnostic testing, counseling and instruction in reading and study skills. Services are delivered by individualized laboratory instruction and through two courses: EDCI 100 (Developmental Reading: Vocabulary, Comprehension and Study Skills) and EDCI 101 (Speed Reading). Each course carries two semester hours credit which may be applied toward graduation.

The Writing Laboratory, 303 Moseley, provides individualized instruction for those who seek help with any aspect of basic college writing. The laboratory also offers continued instruction in specialized writing skills that students often need as they pursue advanced courses of study.

The Mathematics Laboratory, 100 University Hall, provides diagnostic testing and individualized instruction in the concepts and applications of basic mathematics.

The laboratory services are free and available to all students.

The Student Development Program, 424 Student Services Building, provides academic supportive services and financial aid and admission assistance to students from various ethnic groups who have a demonstrated need for academic skills development and/or financial assistance. Offering educational opportunity and individualized assistance, the program helps



students to achieve their educational and vocational goals.

In addition to these support programs, each student at the University may seek assistance from an assigned academic adviser. The adviser assists students in planning their schedules, checking their progress toward completing graduation requirements and helping them in the long-range planning of their programs. It is the student's responsibility to contact the adviser; names and locations of advisers are available in the college offices.

Academic advising and help in career planning are also available in each college office and in the University Division. College office locations and telephone numbers are as follows:

Arts and Sciences, 215 Administration Building, 372-2015  
 Business Administration, 371 Business Administration Building, 372-2747  
 Education, 444 Education Building, 372-0151

Firelands, 150 North Building, 433-5560  
 Health and Community Services, 100 Health Center, 372-0242  
 Musical Arts, Musical Arts Center, 372-2181

## Support services

### Computer Services

Bowling Green State University provides students, faculty and staff with access to diverse computing capabilities through several large-scale mini- and micro-computers. A DEC System 2050 is available for interactive use (with BASIC, FORTRAN, APL, and other popular computer languages) from terminals located in the Mathematical Science Building and other areas on campus, including several residence halls. An IBM 370/158 is available for batch processing via a computing service center equipped with card readers and line printers in the Mathematical Sciences Building. A large laboratory equipped with twenty-four

Apple Plus 2 micro-computers is located in West Hall.

Students using these facilities for course work will be introduced to the appropriate computer systems by their instructors. Others should contact a consultant at one of the computing service centers for assistance.

A staff of consultants is available to help users of the many test scoring, modeling and statistical software packages maintained by the University Computer Services department. A comprehensive list of available hardware, software and user documentation is available upon request from one of the consultants.

Many of these computer services are available through remote communication facilities located at the Firelands College campus in Huron, Ohio. For further information, contact the director of computer services at Firelands College.

## Counseling and Career Development Center

The Counseling and Career Development Center, 320 Student Services Building (372-2081) provides free educational, career and personal counseling services to students. The staff includes licensed psychologists, career counselors, graduate student assistants and a test monitor.

Information on academic majors, career options and other colleges/universities is available on microfiche, audiotapes and a variety of printed materials in the center's Career Education Library. A course entitled Career Planning and Decision-Making (CEO 131) is offered each academic session by members of the center's staff. Career-related interest and values inventories are also available to students as aids in career planning.

Tests in foreign languages are administered to students for placement in appropriate undergraduate language courses. A number of testing programs including the American College Test (ACT), College Level Examination Program (CLEP), Graduate Record Examination (GRE), Graduate Management Admissions Test (GMAT), National Teacher's Examination (NTE), Medical College Admissions Test (MCAT), Law School Admissions Test (LSAT), Miller Analogies Test (MAT) and the Cooperative English Examination (CEE) are administered by the center.

The staff is available for consultation with individual faculty and staff regarding student concerns and with student groups regarding organizational concerns such as leadership, decision-making, goal setting and programming.

Students are seen by appointment. Center hours are 8 a.m. - 5 p.m. Monday through Friday.

## Handicapped Services

The Office of Handicapped Services, 705 Administration Building, provides disabled persons with the opportunity to participate in a broad range of educational and employment activities by eliminating architectural barriers, modifying attitudinal barriers,

encouraging independence of the individual and acting as a liaison between rehabilitation agencies and various University offices.

## Student Health Service

The Student Health Service, located in the University Health Center (372-2271), provides medical care to students at the first-contact phase in the health care delivery system.

The Student Health Service has clinical facilities and a staff of resident physicians, registered nurses, a pharmacist and technicians working in the clinical laboratory, physical therapy, pharmacy and x-ray departments.

Regular clinic hours are 8 a.m. to 8 p.m. Monday through Thursday; 8 a.m. to 5 p.m. Friday; 10 a.m. to 1 p.m. Saturday; and noon to 2 p.m. Sunday.

Students are charged for laboratory, x-ray, physical therapy and pharmacy services of the Student Health Service. Some laboratory procedures and medical consultations are referred to outside sources at the student's expense.

Students who become ill or are injured at times when the Student Health Service is closed and who believe that immediate medical attention is required should report to the emergency room of the Wood County Hospital. Students who use this service will be expected to pay for the cost of treatment.

Nonemergency transportation service to and from the Student Health Service and Wood County Hospital will be provided by University personnel at no cost. Ambulance service is provided by the City of Bowling Green at the student's expense.

A Blue Cross-Blue Shield student group insurance program is available to students at a reduced student rate. Students should check any hospitalization program under which they are covered (generally as a dependent) since insurance companies have varying reimbursement policies. Students are encouraged to carry some form of health care insurance.

## Instructional Media Center

The Instructional Media Center, with its main office in 101 Education Building, provides audio-visual equipment and instructional materials to the academic program at BGSU. Media specialists, production technicians and utilization experts work with faculty, staff and students in identifying instructional needs for classroom presentations. Equipment ranges from slide projectors, motion picture projectors and public address systems, to video tape recorders and players. Instructional developers are available to assist faculty in improving their individual classroom techniques.

The area of production basically covers photography, graphic arts and typesetting. Services for faculty in regularly scheduled classes are free of charge (typesetting excluded); however, students and non-academic areas are charged a nominal fee based on materials used and wages if operators are used. There is no charge for students using AV equipment in regularly scheduled classes for presentations.

For a more efficient service, the center maintains full-time media specialists in 112 Math Science Building to serve the science complex and in 226 Technology Building to serve that area.

## Parking Services

The University requires that any motor vehicle that is owned or operated by a student be registered within 48 hours after the time it is initially operated or parked on any property owned or controlled by the University.

An automobile registration charge of \$19 per year (fall semester through summer session) is required of each student who registers an automobile with the Parking and Traffic Office, Commons Building (372-2776). A temporary registration can be obtained for \$1 per week, and may be renewed for \$1 per each additional week. Each automobile on campus must be registered and its decal displayed in accordance with instructions.

## Placement Service

The University Placement Service, 360 Student Services Building (372-2356), is responsible for providing counseling and employment services to graduating seniors, advanced degree candidates and alumni. To facilitate these services, more than 1,400 employer representatives from education, government, industry and social service organizations are invited to the campus each year. Normally, these recruiters conduct over 9,000 interviews in their search for qualified employees.

The Placement Service provides individual counseling and a variety of programs and services which assist students in determining and implementing career and educational choices. Students are encouraged to use the services of the office at the beginning of their senior year, especially in regard to establishing files and scheduling interview times.

## Psychological Services Center

The Psychological Services Center, located in the Psychology Department, provides services through its doctoral training program to University students on a limited basis. Services include diagnostic evaluations, treatment of behavior disorders through psychotherapy, behavior therapy, biofeedback, marriage counseling, and case and program consultation to University and community agencies. The Center may be contacted by calling 372-2540.

## Speech and Hearing Clinic

The Speech and Hearing Clinic, 338 South Hall (372-2515), assists the student who has a problem in speech or hearing. Any student interested in an examination or possible therapy should contact the clinic for an appointment.

The Speech and Hearing Clinic also extends its services to children and adults in northwestern Ohio and Michigan.

## Glossary

**Academic year** Two semesters: fall and spring.

**Accumulative grade point average** Grade point average for all courses completed at the University. See grade point average.

**Adviser** Person in the department of the student's major who provides information and suggestions on courses, prerequisites, and requirements.

**Associate degree** Degree received, usually after two years, by completing all requirements as outlined in the *Undergraduate Catalog*.

**Bachelor's degree** Degree received, usually after four years, by completing all requirements as outlined in the *Undergraduate Catalog*.

**Coed residence hall** On-campus residence unit which houses both women and men, but in separate wings or floors.

**Cognate** Area of concentration in a subject related to the major field of study.

**College** Academic division of the University that offers programs through its departments.

**Department** Academic division of a college that offers one or more major programs of study.

**Elective** Course that may not fill a requirement, but that is taken for the student's intellectual growth or enjoyment.

**General education requirements** Courses that ensure a well rounded education. These differ from college to college, but generally cover such areas as English, science, and the humanities. Also known as group requirements.

**General fee** Fee paid by students to help finance University services and activities.

**Grade point average** Number between 0.00 and 4.00 derived by dividing the total number of quality points for a semester by the number of credit hours taken. See example, page 9.

**Grant** Form of financial aid which does not have to be repaid.

**Instructional fee** Fee paid by students to finance the cost of instruction not met by state funds.

**Letter-graded credits** Credits for those courses taken for a letter grade of A, B, C, D, or F. Used in computing academic honors.

**Loan** Form of financial aid that must be repaid with interest.

**Major** Subject of study in which a student takes a concentration of course work.

**Minor** Subject in which a student takes several courses, but fewer courses than for a major.

**Orientation** Series of presentations and discussions held at the beginning of each semester to introduce new students to University activities, faculty and services.

**Prerequisite** Requirement that must be met before enrolling in a course, usually completion of a more basic course in the same subject.

**Quality points** Number assigned to letter grades: A = 4, B = 3, C = 2, D = 1, F = 0. No quality points are given for courses taken S/U. By multiplying the number of hours of credit a course is worth by the quality points for the grade received, the number of quality points per course is obtained. See grade point average.

**R.A.** Abbreviation for resident adviser, an upperclass student who lives in the residence hall and advises and counsels the hall's residents.

**Scholarship** Form of financial aid awarded for academic excellence; does not have to be repaid.

**School** Academic division of a college that is larger than a department.

**Semester** School term that is 15 weeks long.

**Semester hour** Unit of credit assigned generally for one hour of in-class work for a course.

**Student code** Rules and regulations governing the behavior of BGSU students.

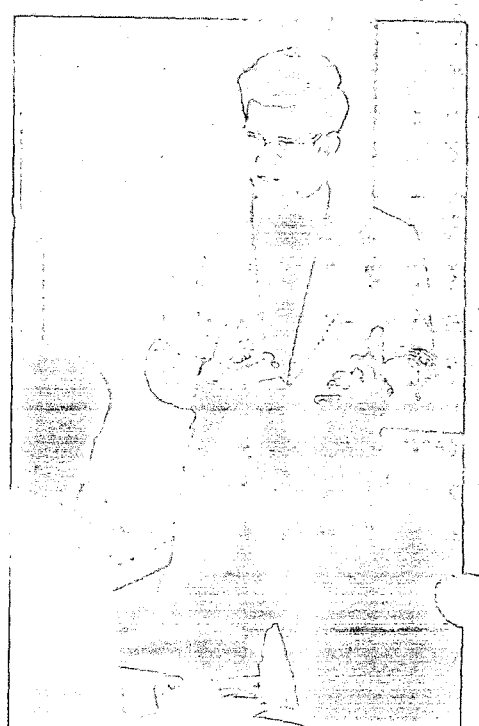
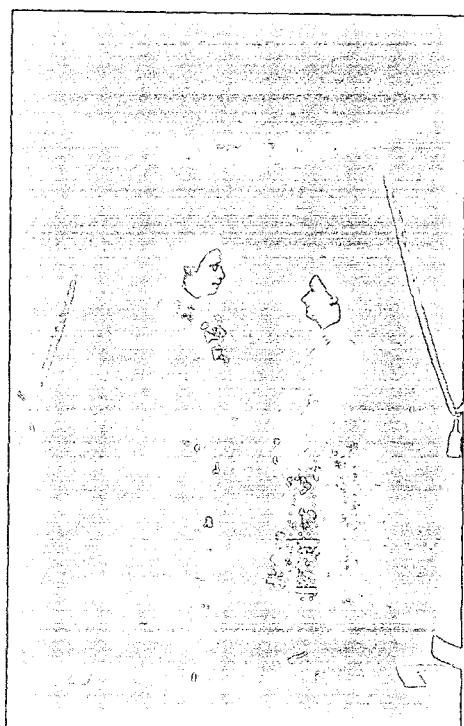
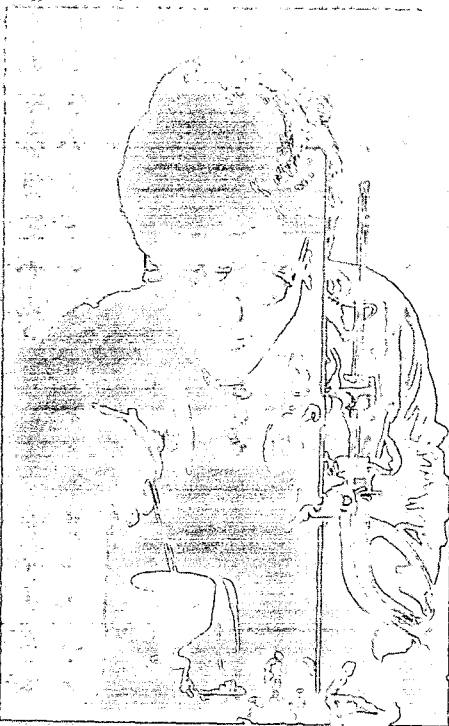
**Summer session** A 10-week summer school period in which courses are offered in an 8-week term and two 5-week terms.

**Summer term** A 5- or 8-week portion of the summer school period.

**Transcript** List of all courses completed and grades received; available from the Office of Registration and Records.

**Undergraduate** Term applied to a freshman, sophomore, junior or senior who is working toward a bachelor's or associate degree.





# College of Arts and Sciences

## Office of the Dean

Kendall L. Baker, dean, 205 Administration Building, 372-2015

Allen N. Kepke, associate dean, 205 Administration Building, 372-2015

## Office of Resources, Planning, and Scheduling

Ralph N. Townsend, associate dean, 205 Administration Building, 372-2015

## Office of Degree Program Advising

Kenneth M. Rothrock, acting assistant dean, 205 Administration Building, 372-2015

## Department Chairs

Department of Biological Sciences, Reginald D. Noble, Ph.D., 217 Life Sciences Building, 372-2332

Department of Chemistry, Douglas C. Neckers, Ph.D., 110 Hayes Hall, 372-2031

Department of Computer Science, Leland R. Miller, Ph.D., 207 Mathematical Sciences Building, 372-2337

Department of English, Lester E. Barber, Ph.D., 202 University Hall, 372-2576

Department of Ethnic Studies, Robert L. Perry, Ph.D., 117 Shatzel Hall, 372-2796

Department of Geography, Joseph G. Spinelli, Ph.D., 305 Hanna Hall, 372-2925

Department of Geology, Richard D. Hoare, Ph.D., 170 Overman Hall, 372-2886

Department of German and Russian, Joseph L. Gray, Ph.D., 139 Shatzel Hall, 372-2268

Department of History, Edmund J. Danziger Jr., Ph.D., 117 Williams Hall, 372-2030

Department of Mathematics and Statistics, W. Charles Holland, Ph.D., 450 Math Sciences Building, 372-2636

Department of Philosophy, Fred D. Miller, Ph.D., 219 Shatzel Hall, 372-2117

Department of Physics and Astronomy, Robert Boughton, Ph.D., 270 Overman Hall, 372-2421

Department of Political Science, William O. Reichert, Ph.D., 223 Williams Hall, 372-2921

Department of Popular Culture, Ray B. Browne, Ph.D., Popular Culture Building, 372-2981

Department of Psychology, Donald V. DeRosa, Ph.D., 207 Psychology Building, 372-2301

Department of Romance Languages, Diane G. Pretzer, Ph.D., 122 Shatzel Hall, 372-2667

Department of Sociology, Elmer A. Spreitzer, Ph.D., 40 Williams Hall, 372-2294

## School Directors

School of Art, Maurice J. Sevigny, Ph.D., Fine Arts Building, 372-2786

School of Speech Communication, Allen S. White, Ph.D., 109 South Hall, 372-2136

## Arts and Sciences

The College of Arts and Sciences includes the established disciplines which have characterized the "liberal arts" tradition—the areas of communication, spoken and written English, as well as foreign languages and cultures; the sciences and mathematics; the social and behavioral sciences; the arts and humanities. The College's curricular offerings are central to general education within the University, and, in addition, provide specialties leading to five undergraduate degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Arts in Communication, Bachelor of Fine Arts and Bachelor of Liberal Studies. With more than 50 departmental majors and interdisciplinary programs from which to choose, the student has ample opportunity to pursue individual needs and interests through specialized training consistent with career objectives.

## Programs offered

Majors and minors are available in all areas listed below unless otherwise noted. The following degree programs are available:

### *Bachelor of Arts*

Individualized planned programs  
 American studies—planned program  
 Art  
 Art history  
 Asian studies  
 Business administration  
 Classical studies—major only  
 Computer science  
 Economics  
 English  
 Environmental policy and analysis—planned program  
 Ethnic studies  
 Film studies  
 French  
 Geography  
 Geology  
 German  
 History  
 Home economics  
 Fashion merchandising  
 Food science and nutrition

Home economics general  
 Interior design  
 Textiles and clothing  
 International studies—planned program  
 Italian—minor only  
 Latin  
 Latin American studies—planned program  
 Library and educational media—minor only  
 Linguistics—minor only  
 Mass media—minor only  
 Mathematics  
 Music  
 Philosophy  
 Political science  
 Popular culture  
 Psychology  
 Russian  
 Russian studies—planned program  
 Sociology  
 Spanish  
 Speech communication  
 Communication disorders  
 Interpersonal and public communication  
 Radio-television-film  
 Theater  
 Transdisciplinary major  
 Statistics—major only  
 Women's studies

### *Bachelor of Science*

Individualized planned programs  
 Astronomy—minor only  
 Biological sciences  
 Microbiology  
 Chemistry  
 Computer science  
 Environmental science—planned program  
 Geology  
 Geochemistry  
 Geophysics  
 Paleobiology  
 Mathematics  
 Physics  
 Psychology  
 Science—minor only  
 Statistics—major only

### *Bachelor of Liberal Studies*

*Bachelor of Fine Arts*  
 Creative writing

### **School of Art**

*Bachelor of Fine Arts*  
 Art history  
 Ceramics  
 Crafts  
 Design  
 Environmental  
 Graphic  
 Drawing  
 Jewelry and metalsmithing

Painting  
Prints  
Sculpture  
Teacher preparation

### School of Speech Communication

#### Bachelor of Arts in Communication

Communication disorders  
Interpersonal and public communication  
Radio-tv-film  
Theater  
Transdisciplinary

The College also offers the following special programs:

#### Preprofessional programs—four-year curricula providing preparation for:

Business  
College teaching  
Graduate study  
Home economics careers  
Library work  
Mathematics and the sciences  
Public administration  
Religious work

#### Arts professional curricula

Arts-engineering program  
Preparation for dentistry  
Preparation for law  
Preparation for medicine

#### Preprofessional preparation for:

Engineering  
Mortuary science  
Occupational therapy  
Optometry  
Osteopathy  
Pharmacy  
Veterinary medicine

The college also offers an arts-education curriculum and other programs leading to dual degrees, including certification to teach in the public schools. Combined baccalaureate-master's degree programs are offered in chemistry. For more information, see page 49.

## General requirements for a degree

In addition to specific requirements listed on the following pages, a candidate for any degree in the College of Arts and Sciences must meet the general requirements for the baccalaureate degree listed on page 7, in addition to the following:

1. Meet the general education group requirements listed below, preferably in the freshman and sophomore years;
2. Satisfy the requirements for a major and minor area of specialization (if applicable—courses taken for a major may not also be counted for a minor).

Courses may be counted toward the required 122 credits if they are:

1. Required or recommended in the student's major or minor;
2. Offered by the following departments or divisions: AMST, AERO, ART (except 343, 352, 353, 482, 483, 487, 492, 495, 497), A&S, ASTR, BIOL, CEO, CHEM, CDIS (except 421, 431, 481), CG, ECON (except 441), EDFI (302 only), ENG, ENVS, ETHN, FREN, GEOG, GEOL, GERM, HIST (except 330), IPCO, ITAL, JAPN, LAT, LAS, LING, MATH (except 241, 242, 243, 414), MILS,

MUCH (only those allowed for Group V credit in A&S Handbook), PHIL, PEG (only the two required courses taken S/U), PHYS, POLS, POPC, PSYC, RTVF, ROML, RUSN, SOC, SPAN, SPCH (except 351), THEA, WS.

A maximum of 14 hours not meeting these specifications may be included in the 122 hours for the degree offered by the College of Arts and Sciences. Courses marked *not for Arts and Sciences credit* are listed in the College of Arts and Sciences Handbook.

### Academic advising

Although the adviser and the dean's office advise students and check each student's record, upon request, the responsibility for meeting graduation requirements lies with the student and not with the adviser, the department or the dean. Thorough familiarity with the *Undergraduate Catalog* is essential.

## Bachelor of Arts Degree

Each student must complete the group requirements listed below as nearly as possible in the freshman and sophomore years and must satisfy the requirements for a major and a minor area of specialization. Every student, however, must take English and physical education in the first year. If known, the major or minor should be started in the first year, but selection of the major may be deferred as late as the beginning of the sophomore year. Certain majors and programs require course sequences. These sequences should be started in the freshman year.

### General education group requirements

#### Group I: Communication

Students are required to complete ENG 112 or to demonstrate by examination that they have proficiency in written expression equivalent to that attained by the student who completes that course. (A penalty is imposed if ENG 112 is not completed within the first 60 hours.) SPCH 102 is recommended for each student.

#### Group II: Foreign Language or Cultural Experience

Each student is required to demonstrate a proficiency in a language and language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (14 hours minimum in the same language area, or fewer by advanced placement).

#### German, Japanese, Russian

Completion of GERM 101 and 102 plus a minimum of six additional hours from: GERM 100, 117, 118, 201, 202, 217, 231, 331 and/or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 201 and 202; or

Completion of RUSN 101 and 102 plus a minimum of six additional hours from: RUSI 100, 201, 202, 303, 315, 316, 317, 319, 331 and/or RUSN 311, 312.

#### Romance languages (French, Italian, Latin, Spanish)

##### Option I:

FREN 101, 102, 201 and 202; or ITAL 101, 102, 201 and 202; or LAT 101, 102, 201 and 202; or SPAN 101, 102, 201 and 202

##### Option II: (one of the following)

FREN 111, 112, 211 and 212; LAT 101, 102 and two of: LAT 141, 142 or 201; SPAN 111, 112, 211 and 212

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

### Group III: Mathematics and Sciences

Each student must complete both 1 and 2.

1. At least three courses elected from astronomy, biological sciences, chemistry, geology, physics or physical geography (including GEOG 125, 126, 127, 213, 404) including at least two courses approved for laboratory credit from a list of approved courses printed in the College of Arts and Sciences *Handbook*.\*
2. One of the following:
  - a. three and one-half years of high school mathematics or equivalent proficiency as demonstrated on a placement test;
  - b. MATH 115, 124, 128, 129 or 130\*\*
  - c. MATH 121 or 127\*\* and one of the following: PHIL 103; CS 100, CS 101 or CS 103;
  - d. three years of high school mathematics and CS 100, CS 101 or CS 103. High school mathematics means college preparatory mathematics, which normally includes algebra I and II, geometry, and in the case of three and one-half years, trigonometry. Remedial, technical and business mathematics are not applicable.

### Group IV: Social Sciences: Economics, Ethnic Studies, Geography, History, Political Science, Psychology, Sociology

Each student is required to complete six courses selected from at least three areas with at least three courses in one area (excluding GEOG 125, 126, 127, 213, 404).

\*Or a 10 hour, B.S. laboratory sequence in one of the sciences meets this requirement. A list of approved courses is printed in the College of Arts and Sciences *Handbook*.

\*\*See Department of Mathematics and Statistics for placement test.

A student majoring in one of the social sciences may include two major courses in this group. A list of approved ethnic studies courses is printed in the College of Arts and Sciences *Handbook*.

### Group V: Arts and Humanities

Each student is required to complete one course in literature (American, English or foreign), one course in the fine arts (art, music, theater, television and film), and three additional courses from at least two of the following areas: ART 101, art history; American, English or foreign literature; American studies; ethnic studies; music appreciation, music history, music literature, philosophy (except PHIL 103 used to apply to group III), popular culture, drama, history of public address and women's studies. It is recommended that philosophy be one of these areas. A list of courses approved for group V requirements is printed in the College of Arts and Sciences *Handbook*. A student majoring in the arts and humanities may count one major course in this group.

## Bachelor of Arts: majors and minors

By the beginning of the second year most students select a major and minor subject. The number of hours required for a major or minor varies with departmental requirements but at least 32 hours are required in the major and 20 hours in the minor except as indicated in the following sections. In arranging courses in the minor field, a student should consult the department concerned.

Outlines listed for each major represent the usual sequences, but may be modified upon departmental approval to meet individual needs.

### Individualized planned program option

If educational objectives cannot be met by one of the departmental majors or minors or by one of the planned programs, students may create an individualized planned program in consultation with a faculty adviser or advisers to substitute for the major or minor or both. A student who has earned at least 30 hours of credit and who needs at least 30 hours to complete the program may petition the Academic Appeals Board of the college by presenting a statement of rationale for an individualized planned program as well as a detailed list of courses to be taken. Upon approval, the student is obligated to complete the program as planned unless changes are approved by the office of the dean. The group requirements remain the same.

## American Studies

14 University Hall, 372-0145

**Planned program**—no minor required

An interdisciplinary program dedicated to the holistic study of American culture, society and institutions, American studies offers individualized programs using offerings in the humanities and social sciences

which focus on the American experience. American studies courses develop the skills and methods appropriate to cultural studies and serve to integrate the substance of other disciplines into coherent patterns reflecting the complexity of American life and our national heritage. The director of American studies and the undergraduate adviser help students design programs suited to their needs and interests within the general requirements of the program and the college.

The program requires a minimum of 54 hours including the following:

AMST 200 and 400 (6)

ART 441 and 442 (6)

HIST 205 and 206 (6)

PHIL 315 and 415 (6)

SOC 101 (3)

ENG 266 and 267 (6)

6 hours selected from:

GEOG 225, 230, 325, 326, 333, 335, 337, 350, 351, 402, 425, 426, 436, 451;

POLS 201, 301, 304, 331, 341, 345, 346,

347, 416, 417, 418, 421, 422, 430, 440;

SOC 231, 311; 315, 316, 418;

and a 15-hour concentration in one of the following departments:

English, geography, history, philosophy, political science or sociology.

At least half of the 54 hours must be in 300- or 400-level courses. At the discretion of the instructor and the student's adviser, prerequisites to courses identified as cognates in the American studies program may be waived.

### Other programs

Programs in American studies also are available through the College of Education.

## Art

120 Fine Arts Building, 372-2786

**Major** (33 hours)

*First year* (12 hours)

ART 102, 103 and 112 (9)

ARTH 145 (3)

*Second year* (15 hours)

ART 205 and 261 (6)

ARTH 146 (3)

ARTD 211 (3)

select one:

ART 277, 371, 373 or 325 (3)

*Third and fourth years* (6 hours)

select one:

ART 263, 265, 321 or 267 (3)

Art elective (3)

**Minor** (21 hours)

*First year* (12 hours)

ART 102, 103 and 112 (9)

ARTH 145\*(3)

*Second year* (6 hours)

ARTH 146 (3)

Art electives (3)

*Third and fourth years* (3 hours)

Art elective (3)

### Other programs

Bachelor of Fine Arts programs in art are offered by the School of Art in the College of Arts and Sciences. In addition, a Bachelor of Science program in visual arts education is available through the College of Education. A Bachelor of Science in Art Therapy is offered through the College of Health and Community Services.

## Art History

120 Fine Arts Building, 372-2786

**Major** (33 hours)

ART 102 (3)

ARTH 145, 146 (6)

Studio electives (3)

ARTH 440, 442 or 456 (3)

ARTH 445 or 446 (3)

ARTH 451 or 454 (3)

ARTH 458 or 459 (3)

Art history electives (9)

**Minor** (21 hours)

ART 102 (3)

ARTH 145 and 146 (6)

Art history electives (12)

### Other programs

A specialization in art history leading to the Bachelor of Fine Arts degree is available through the School of Art in the College of Arts and Sciences.

## Asian Studies

108 Williams Hall, 372-2196

**Planned program** (a minor is required)

Through a multi-disciplinary approach, the Asian studies program is designed to provide students with:

1. A broad view of Asia.
2. An in-depth knowledge of a selected country or region of Asia.
3. An ability to comprehend an indigenous language.

**Major** (36 hours selected from a list of courses available in the college office, and the completion of an Asian language sequence through the 202 level).

Students majoring in Asian studies should work closely with the Asian studies adviser in the selection of courses and an appropriate minor.

**Minor** (26 hours selected in consultation with the Asian studies adviser from the list of approved courses. Asian language sequence is not required.)

### Student exchange program

A student may elect to study at a Japanese or a Korean university.

## Business Administration

313 Business Administration Building, 372-0211

**Major** (39 hours)

MIS 200 or CS 100

STAT 211 and 212

ACCT 221 and 222

ECON 202 and 203

LEGS 301

MKT 300

MGMT 300

ECON 303 or 311

FIN 300

BA 405

MATH 124 and 125 are prerequisites for STAT 211 and 212

### Cognate Minor

A student majoring in business administration may elect any of the minors offered by the departments of the college or may elect

to complete an individualized planned cognate minor. The cognate minor must consist of at least 15 hours in courses selected in consultation with an adviser in the office of the College of Arts and Sciences. A cognate minor must be approved by the dean of the college prior to beginning the final year.

#### Minor (27 hours)

MIS 200 or CS 100  
STAT 211  
ACCT 221  
ECON 202 and 203  
LEGS 301 or BA 403  
MKT 300  
MGMT 300  
FIN 300  
MATH 124 and 125 are prerequisites for STAT 211 and ACCT 221

### Classical Studies

227 Shatzel Hall, 372-2667

#### Major (only) (24 hours)

Fourteen hours of Latin beyond the 202 level including Latin 351 and at least two courses at the 400 level.

ART 445 or 446 (3)  
HIST 441 or 442 (3)  
PHIL 211 (3)

Greek language courses recommended.

### Computer Science

207 Mathematical Sciences Building,  
372-2337

#### Major (32 hours)

CS 101 or 103 (3)  
CS 201, 202, 205, 305, 306 and 307 (18)  
Four CS electives, including three 400-level courses (11-12 hours)  
MATH 131 and MATH 222 (8)

The following courses may not be applied to the 32-hour major requirement: CS 100, 180, 260, 390 and 490. Students with a minor or joint major in MATH need not complete MATH 222.

#### Minor (18 hours)

CS 101 or 103 (3)  
CS 201 and 205 (6)  
CS electives (9)

The following courses may not be applied to the 18-hour minor requirement: CS 100, 180, 260, 390 and 490.

#### Recommended electives

ACCT 221, ENG 488, MATH 247 and PHIL 303; it is recommended that the natural sciences requirement be completed by taking PHYS courses.

#### Other programs

A Bachelor of Science in computer science also is offered by the College of Arts and Sciences. In addition, programs in computer science are available through the College of Education.

### Economics

310 Business Administration Building,  
372-0162

#### Major (33 hours)

First year (8 hours)  
MATH 124 and 125 or MATH 131 (prerequisites to STAT) (8)

#### Second year (12 hours)

STAT 211 and 212 or equivalent (not included in major hours) (6)  
ECON 202 and 203 (6)

#### Third year (9 hours)

ECON 302, 303 and 473 (9)

#### Fourth year (18 hours)

ECON electives (18)

#### Minor (20 hours)

Second year (6 hours)  
ECON 202 and 203 (6)

#### Third year (6 hours)

ECON 302 and 303 (6)

#### Fourth year (8 hours)

ECON electives (8)

#### Other programs

Programs in economics also are available through the College of Business Administration and the College of Education.

### English

202 University Hall, 372-2576

#### Major (32 hours beyond ENG 112)

##### Group I

ENG 301 (3)  
ENG 201 (4)  
ENG 208, 456, 483, 485 or 488 (3)

##### Groups II, III, IV, V: (7 courses):

Choose two courses each from any three of these groups, and one from the remaining group. At least three of the seven courses must be above the 200 level:

##### Group II

ENG 261, 264, 306, 400, 401, 402, 403, 406 or 482

##### Group III

ENG 265\*, 266, 404, 408, 410, 411 or 415

##### Group IV

ENG 262, 265\*, 267, 322, 416, 417, 418, 430 or 435

##### Group V

ENG 290, 320, 323, 325, 330, 333, 335, 380, 419 or 420

\*265 may count for either III or IV, but not both

#### Special studies option

English majors with specific career goals, such as commercial or technical writing, legal studies or linguistics, may, with the approval of the English adviser, substitute two relevant ENG courses for two required courses in groups II, III, IV or V (no more than one substitution per group).

#### Minor (20 hours beyond ENG 112)

##### Group I

ENG 301 (3)  
ENG 201 (4)  
ENG 208, 456, 483, 485 or 488 (3)

##### Groups II, III, IV, V:

Choose one course each from any three of these groups; at least two of the three courses must be above the 200 level:

##### Group II

ENG 261, 264, 306, 400, 401, 402, 403, 406 or 482

##### Group III

ENG 265\*, 266, 404, 408, 410, 411 or 415

##### Group IV

ENG 262, 265\*, 267, 322, 416, 417, 418, 430 or 435

##### Group V

ENG 290, 320, 323, 325, 330, 333, 335, 380, 419 or 420

\*265 may count for either III or IV, but not both

#### Other programs

Programs in English are also available through the College of Education. The College of Arts and Sciences also offers the Bachelor of Fine Arts degree with a major in creative writing.

### Environmental Policy and Analysis

124 Hayes Hall, 372-0207

#### Planned program; no minor required

The program emphasizes the multidisciplinary nature of the field of environmental studies and the roles of these disciplines which address environmental issues from a point of view other than natural science. The curriculum includes basic instruction in the ecosystem approach and an individually planned area of emphasis which is designed to prepare each student to enter the career field of his or her choice.

Required courses are:

ENVS 101, 301, 401 and 402 (10)  
CS 100 or 101 (3)  
ECON 200 or 202 (3)  
SOC 101 or PSYC 201 (3-4)  
PHIL 332 (3)  
POLS 336 (3)  
ENG 207 or 488 (3)  
LEGS 431 (3)  
BIOL 101, 104 or 204 and 205 (two courses) (7-10)

IPCO 203, 204 or 205

Two from: GEOG 125, 126, CHEM 115, 116, GEOL 100, 104, PHYS 100 (6-8)

Statistics: MATH 115 or 247, or PSYC 270, or SOC 369, or STAT 211 and 212, or STAT 200 (3-6)

Four courses chosen from: ECON 435; EDFI 416; ENVH 404; ENVR 421; GEOG 325, 331, 333, 426, 442; HIST 338; POLS 335, 337; PSYC 440\*; RED 273; SOC 300\*, 312, 315 (12)

Fifteen hours must also be taken in an area of emphasis such as environmental planning, management and administration, legislation and policy development or environmental analysis (economics and statistics). Students should file an approved course list no later than the end of the junior year. An internship is highly recommended.

#### Other programs

The College of Arts and Sciences offers a planned program in environmental science leading to a Bachelor of Science. Environmental programs are also available in the College of Health and Community Services and the College of Education. Students should contact the Center for Environmental Programs, 124 Hayes Hall, 372-0207, for help in selecting the program that most closely meets their career objectives.

\*Environmental issues only.

### Ethnic Studies

113 Shatzel Hall, 372-2796

Ethnic Studies is an interdepartmental and interdisciplinary program designed to provide a comprehensive study of the ethnic groups in America with particular attention given to the life and experience of such groups in relation to their native land.

The program also provides opportunities for students to participate in either one year in a university in Africa, a summer in Mexico, or a field study program.

#### Major (32 hours)\*

6 hours introductory courses: ETHN 101 and either ETHN 110 or ETHN 120



9 hours of courses in approved departments outside of Ethnic Studies (a list is available from the ethnic studies adviser).

17 hours ethnic studies electives

\*A student, in consultation with the adviser, may choose to focus on a specialized area of ethnic studies (e.g., black studies, Latino studies).

#### Minor (21 hours)

Must include two introductory courses with remainder of courses relating to ethnicity in consultation with the adviser.

## Film Studies

Popular Culture Building, 372-2981

**Planned program;** no minor required

Film studies is an interdisciplinary program designed to provide a general education in all major aspects of film study and areas of specialization that meet an individual student's interests and needs. Students majoring or minoring in film studies may select courses from the following departments or schools: art, English, German-Russian, history, industrial education, journalism, philosophy, popular culture, romance languages and speech communication.

The program consists of a minimum of 43 credit hours for a film major and 21 credit hours for a minor.

#### Major (43 hours)

After completion of 24 hours of course work in the basic core, the student selects an additional 19 hours of course work in the creative/technical track or in the history/theory/criticism track. The creative/technical track provides tools and techniques for the talented student to use in cinematic expression. The history/theory/criticism track seeks to explore film in a variety of ways in order to prepare skilled film teachers or critics. The program for each student is individually planned in a series of conferences between the student and the director/adviser.

#### Core courses

RTVF 261, 264, 464 and 466 (12)  
POPC 250 or ENG 200 (lit. and film) (3)  
JOUR 306 or VCT 282 (3)  
RTVF 469, POPC 350, ENG 385 or PHIL 335 (3)  
GERM 415, RUSN 415, ROML 200 or ITAL 261 (3)

*Creative/technical track*—19 hours in addition to those courses taken for the core.

RTVF 263, 364, 469, 490  
THEA 241, 243, 341, 342, 343, 349, 443  
JOUR 306, 307, 407, 430  
ART 325

VCT 203, 382, 386, 460, 482

*History/theory/criticism track*— 19 hours in addition to those courses taken for the core.

ENG 200, 251, 385, 485

HIST 391

PHIL 335

POPC 350, 355

ROML 200

ITAL 261

GERM 415

RUSN 415

RTVF 469

#### Minor (21 hours)

RTVF 261 and 464 (6)

ENG 200 (3)

POPC 250 (3)

GERM 415, RUSN 415, ROML 200 or ITAL 261 (3)

JOUR 306 or VCT 282 (3)

RTVF 466, RTVF 469, POPC 350, ENG 385 or PHIL 335 (3)

#### Other programs

Programs in radio-television-film are offered by the College of Arts and Sciences as Bachelor of Arts sequences and by the college's School of Speech Communication as Bachelor of Arts in Communication sequences.

## French

122 Shatzel Hall, 372-2667

#### Major (24 hours beyond FREN 202)

FREN 351, 361, 371 and 372 plus 12 hours including two 400-level courses, at least one being literature. (Independent study courses will not fulfill the literature requirement.)

#### Minor (16 hours beyond FREN 202)

FREN 351, 361, 371 or 372 plus seven hours of electives, including one 400-level course (not independent study course.)

## Geography

305 Hanna Hall, 372-2925

#### Major (32 hours)

GEOG 125, 126, 127 or 213 (2-3)

GEOG 225 or 230 (3)

GEOG 321 (3)

Electives (in consultation with adviser) (23-24)

A student may specialize in urban, rural and regional planning; delivery and planning of social services, cartography, economic geography, environmental resources, population and other aspects of geography.

#### Minor (20 hours)

#### Other programs

Programs in geography also are offered by the College of Education.

## Geology

170 Overman Hall, 372-2886

#### Major (35 hours including GEOL 493 or 494)

#### Minor (20 hours)

#### Other programs

The College of Arts and Sciences also offers Bachelor of Science programs in geology.

The College of Education offers programs in earth science.

## German

130 Shatzel Hall, 372-2269

#### Major (24 hours beyond GERM 202)

GERM 317, 318 and 417 (9)

Electives in GERM at 400 level (4-6)

GERM 260 and 360 do not count toward the major.

#### Minor (14 hours beyond GERM 202)

#### Other programs

Programs in German also are available through the College of Education.

## History

206 Williams Hall, 372-2769

#### Major (33 hours)

Nine hours chosen from the following: HIST 151, 152, 205, 206, 280

Twenty-four hours chosen from the following, with at least three hours at the 400 level in each of the three categories:

#### European History

HIST 357, 363, 367, 377, 415, 444, 448, 454, 458, 459, 464, 469, 470, 471

#### U.S. History

HIST 301, 302, 303, 306, 307, 320, 323, 325, 326, 338, 419, 420, 421, 422, 425, 426, 427, 428, 429, 430, 433, 436, 437, 438

#### Other

HIST 304, 305, 309, 310, 311, 315, 316, 340, 360, 381, 382, 386, 401, 411, 413, 414, 441, 442, 462, 481, 483, 486

(HIST 391, 395, 400, 480, 495 may be used to fulfill the requirements of the major and minor with approval of the department adviser)

#### Minor (21 hours)

Nine hours chosen from the following: HIST 151, 152, 205, 206, 280

Twelve hours at the 300 or 400 level chosen from at least two of the three categories indicated above with at least three hours at the 400 level.

## Home Economics

206 Johnston Hall, 372-2026

Five programs are available through the Department of Home Economics. These include planned professional programs in fashion merchandising and interior design; major programs in food science and nutrition, and textiles and clothing; and a general home economics major with a concentration in foods and nutrition or textiles and clothing. Programs must be planned with the adviser no later than the second year. After the first year, students may participate in a supervised field experience during the summer or academic year.

### Fashion Merchandising

206 Home Economics Building, 372-2026

This is a planned program designed to prepare students for careers in business and industry. These may include executive management positions; retail or wholesale merchandising; educational and/or sales representative for fabric, apparel, and accessory firms. Fashion merchandising students may choose to study at the Fashion Institute of Technology in their senior year. No minor is required.

#### First year (21 hours)

ART 101, 103 and ARTH elective (9)

HOEC 101 and 103 (6)

SOC 101 (3)

SPCH 102 (3)

#### Second year (13 hours)

ECON 202 (3)

PSYC 201 (4)

HOEC 202 and 204 (6)

HOEC 389 (1-5) optional

#### Third year (18 hours)

HOEC 303 and 313 (6)

MKT 300 (3)

BA 203 (3)

ACCT 325 (3)

HOEC 412 or 414 (3)

*Fourth year (24 hours)*  
HOEC 401, 402, 403 and 404 (12)  
MKT 410, 430 and 436 (9)  
Business elective (3)

#### **Food Science and Nutrition**

206 Johnston Hall, 372-2026

A major program designed for the student who wishes to specialize in the food science field preparatory to graduate study or for a career in business or industry. A minor is required.

*First year (13 hours)*  
CHEM 125 and 126 (10)  
SOC 101 (3)

*Second year (24 hours)*  
CHEM 306, 308 and 309 (8)  
ECON 202 and 203 (6)  
HOEC 210 and 212 (6)  
PSYC 201 (4)

*Third year (10 hours)*  
HOEC 307, 326 and 480 (10)

*Fourth year (18 hours)*  
HOEC 405, 431, 432, 435, 436 and 480 (18)

#### **Interior Design**

209 Home Economics Building, 372-2026

The interior design program trains students in the planning and executing of residential and contract interiors. Course work helps students evaluate problems and devise solutions for them. Students who complete the approved four-year program are eligible to apply for associate membership in the American Society of Interior Designers (ASID). No minor is required.

*First year (24 hours)*  
ART 102 and 103 (6)  
HOEC 103 and 219 (6)  
CS 100 (3)  
SPCH 102 (3)  
SOC 101 (3)  
DESN 104 (3)

*Second year (23 hours)*  
ART 112, 146 and 213 (9)  
HOEC 303 (3)  
ECON 202 (3)  
CONS 235 (3)  
PSYC 201 (4)  
HOEC 389 (1-5) optional

*Third year (24 hours)*  
ACCT 325 (3)  
ART 313 (3)  
HOEC 319 and 333 (6)  
DESN 301 (3)

Select 9 hours from:  
HOEC 105  
HOEC 313  
HOEC 406  
BA 203  
MKT 300  
MKT 410  
MKT 430

*Fourth year (24 hours)*  
ART 417 and 440 (6)  
HOEC 417, 418, 419 and 470 (12)  
MGMT 305 (3)  
Business electives (3)

Also see School of Art for specializations in graphic and environmental design and School of Technology for a specialization in product design.

#### **Textiles and Clothing**

101 Home Economics Building, 372-2026

A major program designed for the student who wishes to specialize in the textiles and clothing field preparatory to graduate study or for a career in business and industry. A minor is required.

*First year (9 hours)*  
HOEC 101, 103 and 105 (9)

*Second year (9 hours)*  
HOEC 202, 204 and 207 (9)

*Third year (6 hours)*  
HOEC 303 and 313 (6)

*Fourth year (15 hours)*  
HOEC 401, 402, 403, 404, 412 or 414 (15)

#### **Home Economics General**

206 Johnston Hall, 372-2026

A program designed for the student who desires a general home economics background with a concentration in foods and nutrition or textiles and clothing or plans to continue in graduate school. A minor is required.

*Core courses (15 hours)*  
HOEC 103, 105, 205, 321, 303, 406

*Foods and nutrition concentration (17 hours)*  
HOEC 206, 210, 212, 307, 310, 431

*Textiles and clothing concentration (15 hours)*  
HOEC 101, 202, 401, 404  
HOEC 412 or 414

**Minor (21-22 hours)**  
HOEC 103, 105, 205 or 405; 207, 210, 321; 303 or 406

#### **Other programs**

Programs in home economics also are available through the College of Education and the College of Health and Community Services.

#### **International Studies**

227 Williams Hall, 372-2921

##### **Planned program (37 hours)**

International studies is an interdisciplinary program for students preparing for positions in research, teaching or administration. Students are encouraged to participate in appropriate programs of study abroad which are sponsored by Bowling Green or another university.

Students must: a) complete HIST 152, POLS 101, ECON 202, GEOG 230, SOC 231, and 6 hours of language study above the 202 level in GERM, RUSN or FREN; and b) select in consultation with the international studies adviser a minimum of 16 hours of courses which concentrate on one of the following areas: the Middle East, Soviet Union, Eastern or Western Europe.

An appropriate minor is chosen in consultation with the international studies adviser.

#### **Italian (minor only)**

122 Shatzel Hall, 372-2667

##### **Minor (15 hours beyond ITAL 202)**

ITAL 361, 371 and 372.

#### **Latin**

122 Shatzel Hall, 372-2667

##### **Major (21 hours beyond LAT 202)**

No more than 6 hours from LAT 480, 481, 485 or 486.

**Minor (12 hours beyond LAT 202)**

#### **Latin American Studies**

202 Williams Hall, 372-2805

##### **Planned program**

An interdisciplinary planned program for those students who want to specialize in the Latin American area. The student must complete 33 semester hours of courses in HIST, GEOG, POLS, SPAN, ECON and SOC, along with a Latin American studies senior seminar. The student's foreign language is Spanish and an appropriate minor is selected in consultation with the Latin American studies adviser.

*Core courses (21 hours)*

HIST 309, 310  
POLS 355  
GEOG 349  
SPAN 377, 378  
LAS 401

The remaining 12 hours will be selected from the following: HIST 411, 413, 415; SPAN 368, 431, 481, 482, 488 and 489; ECON 454, 476; SOC 334.

#### **Library and Educational Media (Planned minor only)**

216 Hayes Hall, 372-2461

(20 hours)

L&EM 203, 403, 407, 408, 428, 491 and three hours of L&EM electives.

This minor prepares students for employment in non-school settings such as libraries, and in instructional media and information science, as well as for graduate school in library science.

##### **Other programs**

Both a major and a minor in library and educational media are offered by the College of Education.

#### **Linguistics (Planned minor only)**

305-A University Hall, 372-2576

An interdepartmental and interdisciplinary program designed for the student who is interested in linguistics primarily for its relevance to the major field. The program requires 20 hours of course work appropriately selected from courses recommended by the linguistics adviser. No work can be counted both for the major and the minor at the same time.

##### **Required courses**

LING 310 and 490 (5-6)

One of the following (remainder may be used as electives) (3-4):

GERM 482  
ENG 380  
SPAN 455

**Electives:** 10-12

## Mass Media (Planned minor only)

A program designed to give students — as consumers of the mass media — an opportunity to examine the role of the mass media in a democratic society. Primarily for students *not* planning careers in print, broadcast or film media, the program consists of a minimum of 20 hours. At least three departments are to be represented and no more than three courses are to be selected from any one department.

POPC 165\*, 250, 270, 290, 350, 355 and 390

MKT 410

HIST 323

JOUR 103\*, 340, 402, 435, 470 and 471

POLS 341, 342, 443

RTVF 255\* or 365\*; 261 or 466; 260\*, 366, 460

\*No more than one of the following courses may be counted in the mass media planned program: POPC 165, RTVF 255, RTVF 260, RTVF 365 and JOUR 103.

## Mathematics

450 Mathematical Sciences Building,  
372-2636

Basic requirements for the major and minor are listed below along with several recommended selections of electives for the major. These options provide an opportunity to plan a major appropriate for entry into the specific areas of application or graduate study.

### Major (34 hours)

MATH 131, 232, 233, 332 and 339 (19)

Five courses\* at the 300 or 400 level to total 34 hours including\*\*\*

A:\*\* MATH 403 or 432

B:\*\* MATH 430, 434 or 465

C: at least two courses from any one of the following groups\*\*\*:

MATH 401, 403, 404, 432

MATH 337, 437, 439

MATH 451, 452

MATH 402, 405

MATH 313, 421, 422

MATH 430, 434, 461, 465

MATH 441, 442, 445

### Minor (22 hours)

MATH 131, 232, 233, and 332 (16)

Two electives at the 300 or 400 level\* (6)

### Recommended electives

*Actuarial science (insurance) option*

MATH 226, 426, 430, 432, 441, 442, 451

*INS courses*

CS 101, 103, 440, 442

ACCT 221, 222.

*Engineering and physical science application option*

MATH 337, 430, 432, 434, 441, 452, 461

PHYS 211, 212

MATH 437 or 439,

CS 101 and 103

Two electives in physical science

*Numerical and statistical application option*

MATH 337, 430, 432, 441, 442, 451, 452

CS 101, 103, 440, 442

PHYS 211, 212

*Pregraduate study in mathematics, statistics, computer science and operations research*  
MATH 403, 430, 432 and 465 are basic to all graduate study in the mathematical sciences. The remaining electives should be chosen according to one's area of interest after consulting with a department adviser.

### Other programs

A Bachelor of Science in mathematics also is offered by the College of Arts and Sciences. In addition, programs in mathematics are available through the College of Education.

## Music

Musical Arts Center, 372-2181

Students who wish to pursue a major or minor in music should contact the assistant dean of the College of Musical Arts.

### Major (38 hours)

MUCH 131, 132, 232, 141, 142, 241 (17)

MUSP, applied study (4)

MUSP ensemble (4)

MUSIC electives\* (13)

### Minor (25 hours)

MUCH 131, 132, 141, 142, 241 (14)

MUSP applied (3)

MUSP ensemble (3)

MUSIC electives\* (5)

\*MUCH, MUED and MUSP excluding MUCH 316, MUED 240, 249, 256, 257, 331, 332, 340, 349, 359, 402, 450, 451, 458, MUSP 367, 368, 453, 454, 458, 459, and 466

### Other programs

Degree programs in music also are offered through the College of Musical Arts.

## Philosophy

221 Shatzel Hall, 372-2117

The Philosophy Department seeks to serve three kinds of students.

1. The student who is primarily interested in studying philosophy for its own sake. In addition to the core courses of the philosophy curriculum, this student may be interested in specialized courses such as PHIL 315, 317, 321, 412 and 414.

2. The student who is taking philosophy primarily as preparation for a vocational goal outside of teaching. PHIL 210, 245, 318, 319, 327, 332 and 342 are courses which might interest this student. These students may obtain job experience with academic credit as interns during their senior year.

3. The student who takes philosophy along with a second major may choose from among a number of philosophy courses related to other disciplines, such as PHIL 204, 230, 320, 331, 334, 418, 425 and 431.

### Major (32 hours)

At least three of the four courses in the history of philosophy (PHIL 211, 212; 311, 313) and at least two courses of philosophy at the 400 level. All majors are encouraged to take PHIL 103 or PHIL 303.

### Minor (20 hours)

At least two of the four courses in the history of philosophy (see above) and at least one course of philosophy at the 400 level.

For the major or minor in philosophy, students are encouraged to take the history of philosophy courses not later than the junior year. Although not required, most students will probably want to begin their program by taking a course or two at the introductory level.

## Political Science

227 Williams Hall, 372-2921

### Major (33 hours)

POLS 101, 201 and 290.

POLS 290 must be taken no later than the end of the junior year. A minimum of 24 hours of political science at the 300-400 level distributed among at least three areas of political science with a concentration in one is also required. When appropriate to the student's program, some courses may be counted as fulfilling area requirements other than the specialization under which they are listed. All students must consult with an adviser early in their pursuit of a major. Students with a strong background in political science may petition the department chair or the undergraduate adviser to have the POLS 101 or 201 requirement waived.

*American Government* POLS 302, 331, 333, 334, 335, 336, 337, 341, 342, 345, 346, 347, 431, 434, 440, 443.

*Comparative Government* POLS 271, 351, 354, 355, 361, 366, 368, 454, 458, 460.

*International Relations* POLS 371, 372, 374, 473, 475.

*Political Theory* POLS 250, 301, 304, 402, 403, 404, 405, 452.

*Public Administration* POLS 221, 330, 420, 421, 422, 423, 430, 431, 459.

*Public Law* POLS 416, 417, 418, 419, 420, 424, 425

POLS 221 is a prerequisite for any of the 300-400 level courses in public administration. The beginning student is encouraged to take the following courses before taking advanced courses in a particular area: POLS 201 for American government, POLS 250 for political theory and POLS 271 for comparative politics/international relations. Students opting for honors in political science must also take POLS 495, Honors Seminar in Contemporary Political Science, and write a senior thesis under the direction of a faculty adviser.

### Minor (21 hours)

POLS at 100-200 level (6)

POLS at 300-400 level (15)

### Other programs

A program in political science also is offered through the College of Education.

## Popular Culture

Popular Culture Building, 372-2981

### Planned program (no minor required)

The Department of Popular Culture broadens the base of college education by using the subject matter and methodologies of many disciplines, yet focusing on the dominant or "popular" culture of any period of time. While studies of contemporary culture are an important part of the popular culture program, historical material is emphasized as well.

\*except MATH 222, 226, 395, 414, 470, 495

\*\*may be modified in a planned program by an adviser and the department

\*\*\*some of these courses may not be offered every year

To insure a diverse program, the student is expected to take as many courses in as many different department/schools as feasible while, at the same time, completing course requirements for the program. Not more than 10 credits may be taken in any one department other than POPC.

The director and adviser direct the program and assist students in designing programs adapted to their special needs and interests and the requirements of the college and the department.

#### Major (43 hours)

*Required courses* POPC 160, 165, 220, 480, 426; one of the following: 250, 270, 350, 355, 370 (17). Plus 26 hours selected from POPC courses or from the list of electives available in the college and department office.

#### Minor (20 hours)

*Required courses* POPC 160, 165, 426; one of the following: 250, 350, 355, 370 (12). POPC 220 and 480 are recommended. Plus eight hours selected from POPC courses or from the list of electives available in the college and department office.

## Psychology

259 Psychology Building, 372-2301

**Major** (30 hours in psychology and a minor or 24 hours in cognate fields)

A psychology major may minor in any department in which arts and sciences credit is given. A student who elects a cognate minor should select, after consultation with an adviser, courses from at least three of the following fields: BIOL, CHEM, CS, ECON, MATH, PHIL, PHYS, SOC. Two courses that are used to fulfill group requirements may also be applied to this minor.

*First year*  
PSYC 201 and 270 (7)

*Second year*  
PSYC 290 (4)  
PSYC electives

*Third year*  
One 300-level laboratory course  
PSYC electives

*Fourth year*  
One 300-level laboratory course  
PSYC electives

**Minor** (20 hours in PSYC)

#### Other programs

The Bachelor of Arts program in psychology is primarily designed for the student interested in psychology as the focus of a liberal education. There is also a Bachelor of Science program in psychology offered by the College of Arts and Sciences that is designed for the student who is preparing for graduate study. Other programs in psychology are available through the College of Education.

## Russian

128 Shatzel Hall, 372-2369

**Major** (20 hours beyond RUSN 202, or equivalent, and including RUSN 317, 318 and RUSN 303 or 319)

**Minor** (12 hours beyond RUSN 202)

#### Other programs

Programs in Russian also are offered by the College of Education.

## Russian Studies

241 Shatzel Hall, 372-2921

#### Planned program (46-66 hours)

Russian studies is an interdisciplinary program which examines Russian and Soviet society, politics and culture. The program aims to develop reading and conversational skills in the Russian language and a knowledge of Russian and Soviet society. The student selects either a humanities or social science option and completes courses in six areas: preparatory studies, language studies, concentrated studies, supporting studies, integrative studies and applied studies.

A list of courses approved for inclusion in the following areas of the planned program is available in the college office:

Preparatory courses (12-16 hours)  
Language (6 hours beyond Russian 202)  
Concentrated studies (17-24 hours)  
Support studies (8-14 hours)  
Integrative studies (3-6 hours)

## Sociology

45 Williams Hall, 372-2294

#### Major (30 hours)

SOC 101, 369 and 370  
SOC 302 or 303

SOC electives are generally chosen to serve student career goals. Students who anticipate graduate study in sociology should also consider SOC 303 and SOC 480 in addition to the required courses. Majors or minors are strongly encouraged to concentrate course selections in one of the following areas:

**Anthropology.** Anthropology is the study of the world's cultures, its technologies, values, languages and beliefs. Course work in anthropology is ideally suited for occupations involving foreign travel and contact with people from other cultures and countries. Such career areas include international business, international diplomacy, tourism and ethnic relations.  
SOC 231, 331, 332, 334, 453

**Criminology.** This is the study of crime — including the nature of criminal law, the causes and consequences of criminal behavior and the ways in which society deals with criminal offenders. Criminology is appropriate preparation for careers in both the adult and juvenile justice systems: the police, the courts, probation, and corrections.  
SOC 301, 341, 342, 344, 352, 441, 442, 443, 449

**Human services.** This concentration is suited for students preparing for careers in agencies responsible for the planning, delivery and administration of services and resources for the well-being of individuals. Course work provides fundamental understandings for management decisions involving the family, poverty, aging and community recreation.  
SOC 301, 316, 318, 361, 404, 417, 460, and 463

**Population studies.** This concentration examines the composition of human populations, communities and organizations as they adapt to their environment. Basic understandings of contemporary energy and

ecological issues are emphasized. The curriculum provides a breadth of training for careers in business planning, labor force analysis and economic development. Population analysts are employed in all levels of government and private business.  
SOC 311, 312, 315, 414, 415, 416

**Community planning.** This area incorporates organizational theory, political behavior and community development. The emphasis is on public policy in a world characterized by rapid social change. A concentration in community planning is well suited for students with career interests in city administration, urban development or policy research.  
SOC 311, 317, 318, 352, 416, 418

**Survey research.** The collection, management and interpretation of social data are the primary concern of this concentration. Course work covers sampling techniques, data processing and statistical analysis as applied to survey research in areas such as public opinion, electoral behavior and consumer attitudes. Social research analysts hold a variety of positions in government agencies as well as in commercial firms specializing in market research and advertising.  
SOC 369, 370, 371, 490

All of the programmatic concentrations listed here may involve cooperative education placements or internships which offer an opportunity for students to work in settings where they can apply their knowledge and learn more about careers in their area of study.

Students can consult the undergraduate adviser in the Department of Sociology for the planning of other concentrations (e.g., pre law and social science education) and for planned individual programs.

#### Minor (20 hours)

A student minoring in sociology is strongly encouraged to complete SOC 301, 302, 369, and 370.

#### Other programs

A minor in sociology is also offered in the College of Education.

## Spanish

122 Shatzel Hall, 372-2667

#### Major (27 hours beyond SPAN 202)

SPAN 351, 352, 367, 368, 371; 377 or 378 plus nine hours of electives at the 400-level.

#### Minor (20 hours beyond SPAN 202)

SPAN 351, 352; 367 or 368; 371; 377 or 378 plus five hours of electives with one course at 400 level.

## Speech Communication

The Bachelor of Arts in speech communication offers five concentrations: radio-television-film, interpersonal and public communication, theater, communication disorders and a transdisciplinary program.

#### Communication Disorders

338 South Hall, 372-2515

#### Major (57 hours)

*First year* (11 hours)  
IPCO 305 or 306 (3)  
SPCH 102 (3)  
CDIS 223 and 224 (5)

Second year (21 hours)

THEA 202 or 340 (3)  
CDIS 301, 321 and 351 (10)  
IPCO 203 or RTVF 260 (3)  
PSYC 270 and 305 (5)

Third year (13 hours)

CDIS 311, 331, 341, 361 and 401 (13)

Fourth year (12 hours)

CDIS 411, 421, 431 and 461

**Minor** (39 hours)

First year (3 hours)

SPCH 102 (3)

Second year (15 hours)

CDIS 223, 224 and 351 (9)  
PSYC 270 and 305 (6)

Third year (14 hours)

CDIS 301, 311, 321, 331 and 341 (14)

Fourth year (7 hours)

CDIS 361 and 461 (7)

### Interpersonal and Public Communication

303 South Hall, 372-0031 or 372-2823

**Major** (37 hours)

SPCH 102 (3)

RTVF 260 (3)

CDIS 223 (3)

THEA 141 (3)

IPCO 305 (3)

IPCO electives (22)

**Minor** (24 hours)

SPCH 102 (3)

IPCO 305 (3)

IPCO electives (15)

THEA 141 or CDIS 223 or RTVF 260 (3)

### Radio-Television-Film

413 South Hall, 372-2138 or 372-2224

**Major** (35 hours)

SPCH 102 (3)

RTVF 260, 262, 263, 364, 460, 464 and 466 (23)

CDIS 223 (3)

THEA 141 (3)

IPCO 305 (3)

**Minor** (23 hours)

IPCO 305 (3)

SPCH 102 (3)

RTVF 460 or 466 (3)

RTVF 260, 262, and 263 (11)

THEA 141 or CDIS 223 or IPCO 306 (3)

### Theater

326 South Hall, 372-2523 or 372-2222

**Major** (39 hours)

SPCH 102 (3)

RTVF 260 (3)

CDIS 223 (3)

THEA 347 or 348 (3)

THEA 202, 241, 243 and 341 (12)

IPCO 305 (3)

THEA electives (300-400 level) (12)

**Minor** (24 hours)

IPCO 305 (3)

SPCH 102 (3)

THEA electives (15)

CDIS 223 or RTVF 260 or IPCO 306 (3)

### Transdisciplinary major

404A South Hall, 372-2138

**Major** (37 hours)

SPCH 102 (3)

RTVF 260 (3)

CDIS 223 (3)

THEA 141 and 202 (6)

IPCO 305 (3)

Electives concentrated in at least two program units of the School of Speech Communication (19)

**Minor** (24 hours)

IPCO 305 (3)

SPCH 102 (3)

THEA 141 or CDIS 223 or RTVF 260 (3)

Electives in at least two program units of the School of Speech Communication (15)

### Other programs

Programs leading to the Bachelor of Arts in Communication degree also are offered by the College of Arts and Sciences through the School of Speech Communication. Additional programs in speech and speech and hearing therapy are available through the College of Education.

### Statistics

450 Mathematical Sciences Building,  
372-2636

This major should be combined with a minor or second major in an area of application or technique, such as psychology, science, computer science or business administration.

**Major** (36 hours)

MATH 131, 232, 233 and 332 (16)

MATH 441 and 442 (8)

MATH 430 or 465 (3)

Plus three courses from the following, with at least two from Statistics (9):

MATH 432, 445, 451 and 461

CS 440 and 442

STAT 402, 404, 406, 410, 412 and 414

### Other programs

The College of Arts and Sciences also offers a program in statistics leading to the Bachelor of Science degree. A program in statistics is also offered by the College of Business Administration.

### Women's Studies

317 West Hall, 372-2620

Women's studies is an interdisciplinary program allowing students to design their own curriculum in consultation with the director and an adviser in their area of concentration. The object of the program is to encourage students to understand the crucial issues in their own lives while preparing for a variety of careers. Through research, analysis and hypothesis, women's studies seeks to understand women's experiences in the present and to chart directions for the future. It endeavors to identify that which is unknown and yet believed about the achievements of women individually and collectively as well as their present and potential roles in our own and other cultures.

**Major**

WS 200, 400 and;

Eight courses chosen from the following representing at least six departments and a 16-hour concentration in one of the departments of the College of Arts and Sciences appearing in the following list:

BA 305/HOEC 305

EDFI 460

ENG 200, 423\*

ETHN 300\*

HED 301

HIST 326

HOEC 105, 302, 426, 427

IPCO 406\*

PHIL 245

POLS 434

POPC 231, 424, 460, 470\*

PSYC 306, 307

SOC 300\*, 361, 460, 480, 490

SSM 425

THEA 449\*

WS 300, 470

\*indicates variable topic courses which may be included in the program when the topic is appropriate to women's studies.

**Minor**

WS 200, 400

15 hours of courses chosen from the above list

## Bachelor of Science Degree

Each student must complete the group requirements listed below preferably in the freshman and sophomore years and must satisfy the requirements for a major and minor area of specialization as outlined. Every student, however, must take English and physical education in the first year. If known, the major or minor should be started in the first year, but selection of the major may be deferred as late as the beginning of the sophomore year. Certain majors and programs require course sequences. These sequences should be started in the freshman year.

A Bachelor of Science degree is only available in biological sciences, chemistry, computer science, environmental science, geology, mathematics, physics, psychology or statistics. The student also completes a minor area of specialization as outlined below.

### General education group requirements

#### Group I: Communication

Students are required to complete ENG 112 or to demonstrate by examination that they have proficiency in written expression equivalent to that attained by the student who completes that course. (A penalty is imposed if ENG 112 is not completed within the first 60 hours.) SPCH 102 is recommended for each student.

#### Group II: Foreign language and cultural experience

Each student is required to demonstrate a proficiency in a language and language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (14 hours minimum in same language area, or fewer by advanced placement).

#### German, Japanese, Russian

Completion of GERM 101 and 102 plus a minimum of six additional hours from: GERM 100, 117, 118, 201, 202, 217, 231, 331 and/or GERM 260, 315, 316; or



Completion of JAPN 101, 102, 201 and 202; or  
 Completion of RUSN 101 and 102 plus a minimum of six additional hours from RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331 and/or RUSN 311, 312.

### Romance languages (French, Italian, Latin, Spanish)

#### Option I:

FREN 101, 102, 201 and 202; or  
 ITAL 101, 102, 201 and 202; or  
 LAT 101, 102, 201 and 202; or  
 SPAN 101, 102, 201 and 202.

#### Option II: One of the following:

FREN 111, 112, 211 and 212;  
 LAT 101, 102, and two of: LAT 141 and/or 142 and/or 201;  
 SPAN 111, 112, 211 and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

### Group III: Mathematics and sciences: biological sciences, chemistry, computer science, geology, mathematics and statistics, physics, psychology

A student is required to complete a minimum of 45 hours of credit, including:

1. a major in biological sciences, chemistry, computer science, environmental science, geology, mathematics, physics, psychology or statistics;
2. a minimum proficiency in mathematics equivalent to MATH 131;\*.
3. a laboratory sequence in one of the sciences. (A list of approved courses is printed in the College of Arts and Sciences *Handbook*.)

Certain science courses numbered 100 do not apply toward a student's degree requirements if credit has been granted for the introductory course in the same science. See departmental listings in the course descriptions for specific applications.

\*See MATH course descriptions for placement in MATH 130/131, or Math Department for placement test.

### Group IV: Social sciences: economics, ethnic studies, geography, history, political science, psychology, sociology

Each student is required to complete four courses in one or more of these areas (excluding GEOG 125, 126, 127, 213, 404). A psychology major may include two psychology courses in this group. A list of approved ethnic studies courses is printed in the College of Arts and Sciences *Handbook*.

### Group V: Arts and humanities

Each student is required to complete one course in literature (American, English or foreign), one course in the fine arts (art, music, theater, television and film), and two additional courses from the following areas: ART 101, art history; American, English, or foreign literature; American studies, ethnic studies, music appreciation, music literature, philosophy, popular culture, drama, history of public address and women's studies. It is recommended that philosophy be one of these areas. A list of courses approved for general education group V requirements is printed in the College of Arts and Sciences *Handbook*.

## Bachelor of Science: majors and minors

By the beginning of the second year most students select a major and minor subject. The number of hours required for a major or minor varies with departmental requirements but is at least 32 hours in the major and 20 hours in the minor except as indicated in the following sections. In arranging courses in the minor field, a student should consult the department concerned.

These outlines represent the usual sequence, but you may modify these upon departmental approval to meet individual needs.

### Individualized planned program option

If educational objectives cannot be met by one of the departmental majors or minors or by one of the planned programs, the student may create an individualized planned program in consultation with a faculty adviser or advisers to substitute for the major or minor or both. A student who has earned at least 30 hours of credit and who needs at least 30 hours to complete the program may petition the Academic Appeals Board of the College by presenting a statement of rationale for an individualized planned program as well as a detailed list of courses to be taken. Upon approval, the student is obligated to complete the program as planned unless changes are approved by the office of the dean. The group requirements remain the same.

### Astronomy (minor only)

270 Overman Hall, 372-2422

#### Planned program to substitute for minor (18-21 hours)

Five courses chosen from the following:  
 ASTR 201, 212, 305, 307, 309, 321 and 403  
 Plus six additional hours in PHYS.

This program is intended for students with an avocational interest in astronomy. Students planning a career in astronomy should major in physics and choose astronomy courses as electives.

#### Other programs

A program in astronomy also is offered by the College of Education.

## Biological Sciences

111A Life Science Building, 372-2058

### Major (32 hours)

*First and second years*  
 BIOL 204 and 205 (10)  
 CHEM 125 and 126 (10)  
 300-level BIOL courses as required for the student's program

#### *Third and fourth years*

One course in organic chemistry (CHEM 306 or CHEM 341 and 342) (4-10)  
 (At least one course in biochemistry is strongly recommended.)  
 MATH through 131 or equivalent  
 PHYS 201 (5)  
 A minimum of 10 hours at the 400-level and 12 additional hours electives in BIOL.  
 At least one course in each of the following groups:

#### Group 1: *Biology of Organisms*

BIOL 220, 313, 322, 331, 332, 343, 405, 406, 409, 410, 414, 415, 416, 421, 424, 426, 431, 432, 434, 435, 440, 472, 473, 474, 475, 476, 477.

#### Group 2: *Ecology and Behavior*

BIOL 321, 354, 412, 420, 422, 425

#### Group 3: *Genetics and Evolution*

BIOL 350, 447, 449, 451

#### Group 4: *Cell Biology and Physiology*

BIOL 407, 411, 417, 419, 438, 439, 443

### Minor (20 hours)

*First and second years*  
 BIOL 204 and 205 (10)  
 CHEM 125 and 126 or equivalent (10)

#### *Third and fourth years*

Electives in BIOL (10)

### Microbiology

541 Life Sciences Building, 372-2731

BIOL 204, 205 and 313 (14)  
 CHEM 125, 126 and 201 (13); or CHEM 135 and 136 (10)  
 CHEM 341 and 342 (10)  
 CHEM 308 and 309 (4) or CHEM 445 and 447 (6)

MATH through 131 or equivalent  
 PHYS 201 and 202 (10)

A minimum of 18 hours to be selected from the following: BIOL 405, 406, 407, 409, 410, 421, 424, 426, 439, 443

BIOL 490 (seminars in microbiology) and BIOL 470 as approved by adviser

### Other programs

Programs in biology are offered also through the College of Education. A program in applied microbiology is available through the College of Health and Community Services.

## Chemistry

110 Hayes Hall, 372-2031

Students who take two courses in any one of the following groups may not receive graduation credit for both: CHEM 100, 104, 115, 125, 135; CHEM 126, 136; CHEM 116, 306, 341; CHEM 116, 308, 445; CHEM 321, 454; CHEM 352, 405. Students should secure more detailed descriptions of these courses from the department office.

### Major (32 hours)

A chemistry major may follow several programs of study depending upon career aspirations. All chemistry majors must take the following:

CHEM 125, 126 and 201 (13);  
 or CHEM 135, 136 (10)  
 CHEM 341, 342 (10)

CHEM 321 or CHEM 454, 407 (3-5)  
CHEM 352 or CHEM 405 (3-4)

PHYS 202 or PHYS 212 (preferred) should be taken by the end of the second year  
GERM or RUSN should be selected as the foreign language. MATH 232 should be completed by the end of the second year, except in the least rigorous major. CHEM 313, 395, 413 and 483 may not be included in the 32 hours.

The following program will meet American Chemical Society professional training standards and is the recommended program for students who plan professional careers in science.

#### First year

CHEM 125, 126 (10) or CHEM 135, 136 (10)  
MATH 131 (5)

#### Second year

CHEM 201 (for those having taken CHEM 126) (3)  
PHYS 211, 212 (10)  
MATH 232 (5)  
CHEM 341, 342 (10)

#### Third year

CHEM 405, 406, 407 and 408 (12)  
CHEM 413 is highly recommended  
PHYS 401 or MATH 233 and 332 (3-6)

#### Fourth year

CHEM 454 (3)  
CHEM 463 (4) or CHEM 445, 446 (4)  
Additional 400-level CHEM courses to a minimum of five credit hours of lecture and two credit hours of laboratory.

A student who wishes a more limited major but one that is still adequate for advanced study or professional work in chemistry follows the same schedule during the first three years as given above, except MATH 233 and 332 are not required.

#### Fourth year

CHEM 454 (3)  
Electives from 400-level CHEM

This program also gives excellent preparation for premedical students and other preprofessionals who anticipate possible research careers.

The least rigorous major is useful for certain preprofessional (predental or premedical) programs or for preparation for limited positions in industry or government:

#### First year

CHEM 125, 126 (10) or CHEM 135, 136 (10)  
MATH 131 (5)

#### Second year

CHEM 201 (3) (for those having taken CHEM 126)  
CHEM 341, 342 (10)  
PHYS 201, 202 (10) or PHYS 211, 212 (10)

#### Third and fourth years

CHEM 352 (3) or CHEM 405 (4)  
CHEM 321 (3) or CHEM 454 (3) and 407 (5)  
300- and 400-level CHEM courses to a minimum of 32 hours; at least one CHEM course must be 400-level (not CHEM 413). CHEM 313, 395, 413 or 483 may not be counted in the 32-hour minimum

### Biochemistry Specialization

Chemistry majors preparing for graduate study or research in the health related academic area requiring biochemistry should take: CHEM 445, 446, 447 and 449; BIOL 204, 205, 313, 350, and 411 or 439. CHEM 413 is recommended.

To complete either a standard chemistry major or the more rigorous ACS major, the student should consult the above guidelines

for additional courses that are required to complete the major program of choice.

The student is urged to seek advice from departmental advisers at the chemistry office before planning an academic program, and at regular intervals thereafter. Detailed supplements to this publication are available in the chemistry office that describe courses, programs (including graduate) and professional requirements.

### Minor (20 hours)

#### First year

CHEM 125, 126 (10) or CHEM 135, 136 (10)

#### Second year

CHEM 201 (3) (for those having taken CHEM 126)

CHEM electives

#### Third and fourth years

CHEM electives  
CHEM 313, 395, 413 and 483 cannot count toward the 20 hours required.

### Other programs

Programs in chemistry also are offered by the College of Education.

## Computer Science

207 Mathematical Sciences Building,  
372-2337

### Major (32 hours)

CS 101 or 103 (3)  
CS 201, 202, 205, 305, 306 and 307 (18)  
Four CS electives, including three 400-level courses (11-12 hours)  
MATH 131 and 222 (8)

The following courses may not be applied to the 32-hour major requirement: CS 100, 180, 260, 390, 490. Students with a minor or joint major in MATH need not complete MATH 222.

### Business systems specialization

A student interested in the application of computer science to business systems may take ECON 202 and 203 as part of the group IV requirement and may also wish to consider the following electives: ACCT 221 and 222, FIN 300, MATH 226, MGMT 300 and 305, MIS 471 and 473 and MKT 300.

### Microcomputer systems specialization

A computer science major may choose to specialize in microcomputer systems. No minor is required in this program. The student should include CS 428 in the computer science major. In addition, the following courses must be taken:  
PHYS 201, 303, 428 (11)  
ET 358 and 453 (6)  
ET 490 or PHYS 429 (1-3)  
A total of 19 hours is required.

### Minor (18 hours)

CS 101 or 103 (3)  
CS 201 and 205 (6)  
CS electives (9)

The following courses may not be applied to the 18-hour minor requirement: CS 100, 180, 260, 390 or 490.

### Recommended electives

ACCT 221, ENG 488, MATH 247, PHIL 303; it is recommended that the natural sciences requirement be completed by taking PHYS courses.

### Other programs

A Bachelor of Arts in computer science also is offered by the College of Arts and Sciences. In addition, programs in computer science are available through the College of Education.

## Environmental Science

124 Hayes Hall, 372-0207

### Planned program; no minor required

This program emphasizes the multidisciplinary nature of environmental issues and the role of the natural sciences in addressing and solving environmental problems. Students receive a basic understanding of the sciences, particularly biology and chemistry. Additional courses in the social sciences and humanities are included to help the student obtain a holistic view and understanding of the overall context in which environmental issues are placed. Each student also takes courses in an individually planned area of emphasis designed to prepare for a career field. Close consultation with the staff of the Center for Environmental Programs is essential. Required courses are:

ENVS 101 (2)  
ENVS 301, 401 or 402 (choose two) (5-6)  
CS 100 or 101 (3)  
ECON 200 or 202 (3)  
SOC 101 or PSYC 201 (3-4)  
BIOL 204 and 205 (10)  
CHEM 125 and 126 (10)  
GEOL 104 (4)  
MATH 131 (5)  
ENG 207 or 488 (3)  
Two courses from PHYS 201, 202; 211 212 (10) or CHEM 306 and one PHYS course (7-9)  
MATH 115, 247, PSYC 270 or SOC 369 (choose one) (3)  
IPCO 203, 204 or 205 (choose one) (3)

Four courses from: ENVH 404\*; LEGS 431\*; PHIL 332\*; PSYC 440; POLS 331, 335, 336, 337; HIST 338; ENVR 421; GEOG 321, 333, 412, 331, or 442, 426; SOC 312, 315, 414 (12)  
(No more than two courses with an asterisk may be chosen.)

Fifteen hours must also be taken in an area of emphasis such as energy use, chemical analysis, geography/geology, coastal studies or computer modeling. The area of emphasis is planned by the student with faculty members and academic advisers to reflect the student's occupational goals. Students should file an approved course list for their area of emphasis no later than the end of the junior year. An internship is highly recommended.

### Other programs

The College of Arts and Sciences offers a Bachelor of Arts planned program in environmental policy and analysis. Environmental programs are also available in the College of Education and the College of Health and Community Services. Students should contact the Center for Environmental Programs, 124 Hayes Hall, 372-0207, for help in selecting a program that most closely meets their goals.

## Geology

170 Overman Hall, 372-2886

### Major (38 hours)

GEOL 104, 105, 300, 301, 308, 309, 315, 423 and 494 (plus six hours of electives (38)).  
MATH 131 (5)  
CHEM 125 and 126 (10) or 135 (5)  
PHYS 201 (5) or 211 (5)

**Geochemistry**

A student specializing in geochemistry should take the following courses:

GEOL 104, 105, 300, 301, 308, 309, 315, 423, 431 and 494 (35)

PHYS 211 and 212 (10) or 201 and 202 (10)

MATH 131 (5)

CHEM 125 and 126 (or 135 and 136), 201, 306 and 352 (25)

No minor is required.

**Geophysics**

A student specializing in geophysics should take the following courses:

GEOL 104, 105, 300, 301, 308, 309, 315, 423, 432 and 494 (34)

PHYS 211, 212, 307, 401 and 427 (18)

MATH 131 and 232 (10)

CHEM 125 and 126 (or 135 and 136) (10)

CS 101 or 103 (3)

No minor is required.

**Paleobiology**

A student specializing in paleobiology is required to take the following courses:

GEOL 104, 105, 300, 301, 308, 309, 315, 412 (or 423), 419, 425 and 494 (or 496) (38)

GEOL 490 (senior research problem to be approved by paleobiology adviser) (1-3)

CHEM 125 and 126 (10) or 135 (5)

MATH 131 (5)

BIOL 204, 205 and a minimum of two additional courses to be approved by paleobiology adviser (16-20)

One course in statistics (4-5) is recommended.

No minor is required.

**Geology minor (20 hours)****Other programs**

A program in geology leading to the Bachelor of Arts also is offered by the College of Arts and Sciences.

**Mathematics**

450 Mathematical Sciences Building, 372-2636

Basic requirements for the major and minor are listed below along with several recommended selections of electives for the major. These options provide an opportunity to plan a major appropriate for entry into the specific areas of application or graduate study.

**Major (34 hours)**

MATH 131, 232, 233, 332 and 339 (19)

Five courses\* at the 300- or 400-level to total 34 hours including\*\*\*

A.\*\* MATH 403 or 432

B.\*\* MATH 430, or 434 or 465

C: at least two courses from any one of the following groups\*\*\*:

MATH 401, 403, 404, 432

MATH 337, 437, 439

MATH 451, 452

MATH 402, 405

MATH 313, 421, 422

MATH 430, 434, 461, 465

MATH 441, 442, 445

**Minor (22 hours)**

MATH 131, 232, 233 and 332 (16)

Two electives at the 300- or 400-level\* (6)

\*except MATH 222, 226, 395, 414, 470, 489, 495

\*\*may be modified in a planned program by an adviser and the department

\*\*\*some of these courses may not be offered every year

**Recommended electives**

*Actuarial science (insurance) option*

MATH 226, 426, 430, 432, 441, 442 and 451

INS courses

CS 101, 103, 440 and 442

ACCT 221 and 222

*Engineering and physical science*

*application option*

MATH 337, 430, 432, 434, 441, 452 and 461

PHYS 211 and 212

MATH 437 or 439

CS 101 and 103

Two electives in physical science

*Numerical and statistical application option*

MATH 337, 430, 432, 441, 442, 451 and 452

CS 101, 103, 440 and 442

PHYS 211 and 212

*Pregraduate study in mathematics, statistics,*

*computer science and operations research*

MATH 403, 430, 432 and 465 are basic to all

graduate study in the mathematical sciences.

The remaining electives should be chosen

according to one's area of interest after consulting with a department adviser.

**Other programs**

A Bachelor of Arts in mathematics also is offered by the College of Arts and Sciences.

In addition, programs in mathematics are available through the College of Education.

**Physics**

270 Overman Hall, 372-2422

**Major (32 hours)**

PHYS 211, 212, 301 and 313 (14)

PHYS 305, 307, 401, 406 and 418 (14)

PHYS 470 (1) and other 300- or 400-level

courses in PHYS (3)

It is recommended that a student majoring or minoring in physics take the following:

CHEM 125 and 126 (10)

MATH 332 (3)

For students expecting to continue on to graduate school, the following courses are recommended:

PHYS 303, 309, 402, 417 and 419 (15)

**Microcomputer systems specialization**

A student may elect to specialize in micro-computer systems. The following courses should be included as part of the major:

PHYS 303, 428 and 429 (9)

In addition, the following courses must be taken:

CS 101 or 103 (3)

CS 201, 202, 205 and 307 (12)

MATH 332 (3)

No minor is required.

**Applied physics specialization**

A student may elect to specialize in applied physics, with emphasis on the areas of current interest in the modern optics and solid state fields. The following courses should be included as part of the major:

PHYS 303, 306, 309, 410 or 411, 417, 428 and 429 (21)

In addition, the following courses must be taken:

CS 101 or 103 (3), 201 (3)

CHEM 125 and 126 (10)

DESN 243 (3)

No minor is required.

**Minor (22 hours)**

PHYS 211, 212, 301 and 313 (14)

PHYS 305 and 406 (5)

and other 300- and 400-level courses in PHYS (3)

**Other programs**

Programs in physics are also available through the College of Education.

**Psychology**

259 Psychology Building, 372-2301

**Major** (30 hours in PSYC and either 24 hours in cognate fields or a minor in a second department. The 24 hours in cognate fields should be selected, after consultation with an adviser, from at least three of the following fields: BIOL, CHEM, CS, ECON, MATH, PHIL, PHYS, SOC. Two courses that are used to fulfill group requirements may also be applied to this minor.)

Note: The Psychology Department departs from the arts and sciences group requirements in the following aspects: *Group III (science and mathematics)*: a minimum of 43 hours must be completed in two or more of the following fields: BIOL, CHEM, CS, GEOL, MATH, PHYS, PSYC. No more than 24 hours of PSYC may be applied to this group. Each student must demonstrate proficiency equivalent to completion of MATH 232. Additional preparation in MATH is advisable for the student planning to do advanced graduate work in psychology. *Group IV (social sciences)*: two PSYC courses may be applied. *Group V (humanities)*: courses in logic and the philosophy of science are recommended.

**First year**

PSYC 201 and 270 (7)

**Second year**

PSYC 290 and 370 (7)

PSYC electives

**Third year**

Two 300-level PSYC laboratory courses

PSYC electives

**Fourth year**

PSYC electives

**Minor (20 hours in PSYC)****Other programs**

The Bachelor of Science program in psychology is designed for the student who is preparing for graduate study. There is also a Bachelor of Arts program in psychology offered by the College of Arts and Sciences primarily designed for the student interested in psychology as the focus of a liberal education. Other programs in psychology are available through the College of Education.

**Science**

205 Administration Building, 372-2015

**Minor only**

This minor is offered for the student who receives the Bachelor of Science degree. In place of a conventional minor a student may bring the total in group III (science and mathematics requirement) to 53 hours by following a program approved by the major adviser. No more than 33 hours in the major field may be applied to this requirement.

**Statistics**

450 Mathematical Sciences Building, 372-2636

This major should be combined with a minor or second major in an area of application or technique, such as psychology, science, computer science or business administration.

**Major (36 hours)**

MATH 131, 232, 233 and 332 (16)  
MATH 441 and 442 (8)  
MATH 430 or 465 (3)

Plus three courses from the following, with at least two from Statistics (9):  
MATH 432, 445, 451 and 461  
CS 440 and 442  
STAT 402, 404, 406, 410, 412 and 414

**Other programs**

The College of Arts and Sciences also offers a program in statistics leading to the Bachelor of Arts degree. A program in statistics is also offered by the College of Business Administration.

## Bachelor of Liberal Studies Degree

205 Administration Building, 372-2015

To be eligible for admission to the Bachelor of Liberal Studies degree program, a student must have completed at least 30 hours of credit with a 2.0 accumulative grade point average. Applications for admission are available in the college office and must be returned to a college office adviser within the first seven calendar days of the semester in which admission is desired.

A bachelor of liberal studies candidate must:

1. Complete the university requirements listed on page 7 of this catalog.
2. Complete 100 semester hours of course work within the College of Arts and Sciences including not more than 27 semester hours in any one discipline. (A list of courses and departments outside of the College of Arts and Sciences is printed in the College of Arts and Sciences *Handbook*.)
3. Complete a minimum of 30 semester hours after admission to the program.

## Bachelor of Fine Arts Degree

103 Hanna Hall, 372-0379

Each student must complete the group requirements listed below preferably in the freshman and sophomore years and must satisfy the requirements for a major in creative writing and a minor in an area of specialization.

### General education group requirements

**Group I: English Composition**

Students are required to complete ENG 112 or to demonstrate by examination that they have proficiency in written expression equivalent to that attained by the student who completes that course: (A penalty is imposed if ENG 112 is not completed within the first 60 hours.)

**Group II: Foreign Language or Cultural Experience**

Each student is required to demonstrate a proficiency in a language and language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (14 hours minimum in same language area, or fewer by advanced placement).

**German, Japanese, Russian**

Completion of GERM 101 and 102 plus a minimum of six additional hours from: GERM 100, 117, 118, 201, 202, 217, 231, 331 and/or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 201 and 202; or

Completion of RUSN 101 and 102 plus a minimum of six additional hours from RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331 and/or RUSN 311, 312.

**Romance languages (French, Italian, Latin, Spanish)***Option I*

FREN 101, 102, 201 and 202; or ITAL 101, 102, 201 and 202; or LAT 101, 102, 201 and 202; or SPAN 101, 102, 201 and 202.

*Option II: one of the following:*

FREN 111, 112, 211 and 212; or LAT 101, 102 and two of: LAT 141, 142 and/or 201; SPAN 111, 112, 211 and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

**Group III: Mathematics and Science**

Each student must complete at least two courses elected from astronomy, biological sciences, computer science, chemistry, geology, mathematics, physics or physical geography (including GEOG 125, 126, 127, 213, 404), including at least one course approved for laboratory credit from a list of approved courses printed in the College of Arts and Sciences *Handbook*.

**Group IV: Economics, Ethnic Studies, Geography, History, Political Science, Psychology, Sociology**

Each student must complete three courses in one or more of these subjects. A list of approved ethnic studies courses is printed in the College of Arts and Sciences *Handbook*.

**Group V: Art, English, Music, Philosophy, Popular Culture, Speech Communication**

Each student must complete five courses chosen from at least four of the above disciplines. One course taken in the

student's major may be counted in this group. A list of courses approved for the group V requirement is printed in the College of Arts and Sciences *Handbook*.

## Creative Writing

Enrollment in the creative writing major is dependent upon an ACT score of 22 or higher in English, or consent of the creative writing staff.

**Major (35 hours)**

ENG 261 or 262 (3)  
ENG 308 (6) and 407 (6)  
ENG 208, 209, 320, 323, 330 and 333 (18)  
ENG 205 or 206 (2)

**Minor (20 hours)**

ENG 208, 209, 308 and 407 (12)  
ENG 205 or 206 (2)  
ENG 320 or 323 (3)  
ENG 330 or 333 (3)

## Preprofessional programs

The College of Arts and Sciences provides five kinds of preprofessional programs:

**Four-year curricula**

These curricula, leading to the bachelor's degree, are planned to prepare the student for admission to a graduate or professional school for further specialized study. Curricular requirements and arts and sciences preparation for some special fields of work are discussed in the following section.

**Arts-professional curricula**

These are offered in cooperation with the professional schools and colleges of other institutions of higher learning. The student spends three years at Bowling Green before entering a professional school. Upon satisfactory completion of the first year in the professional school, a bachelor's degree is granted from Bowling Green.

**Preprofessional preparation**

From two to three years of preprofessional study may be completed at Bowling Green. The student then transfers to a professional school or college to complete a professional program.

**Combined curricula**

The student may obtain both an arts and sciences degree and an education degree at Bowling Green by following this program.

**Combined baccalaureate-master's program**

By following this program, the student may finish the course work for a bachelor's degree in less than four complete years and is prepared for early enrollment in a graduate program.

A student who expects to receive a degree by completing one of these curricula must meet all of the requirements for the degree including major, minor and group requirements.

## Four-year preprofessional curricula

### Preparation for business

The College of Arts and Sciences offers a major or minor in either economics or business administration leading to the degree of Bachelor of Arts. The student interested in a career in business should consult the programs offered by the College of Business Administration.

### Preparation for college teaching

The student who wishes to prepare for a career in college teaching should plan on attending graduate school, bearing in mind that many graduate schools require a reading knowledge of one or more of either French, German or Russian. It may be advantageous to take the combined baccalaureate-master's program described on page 49. Specific curricula for teaching subjects in areas of technology at the community and technical college level are available from advisers in the Department of Home Economics and the School of Technology.

Students preparing for high school teaching should register in the College of Education unless they elect the combined arts-education curriculum described on page 48.

### Preparation for graduate study

All programs of the College of Arts and Sciences may be used as preparation for entrance to a graduate school. The student should bear in mind that a reading knowledge of one or two modern languages chosen from French, German or Russian is often required for the doctorate. A knowledge of statistics may be useful.

### Preparation for careers in home economics

The College of Arts and Sciences provides a variety of programs in home economics. The usual arts and sciences curriculum is followed with a major or minor in home economics. A student who is interested in teaching home economics in the public school or working as an agricultural extension agent should pursue a program in the College of Education.

### Preparation for library work

The Bachelor of Arts degree is usually required for admission to a school of library science. A minor in library and educational media is available in the College of Arts and Sciences. The student completing such a minor can obtain a professional degree in library science in one additional year in an approved professional school. The major should be chosen from such fields as English, history, political science and sociology; for work in special libraries, a major or electives in the sciences may be useful. At least two years of a foreign language is strongly recommended.

## Preparation for professional work in mathematics and the sciences

Professional work in the sciences is available to a student with a strong undergraduate degree program. A student whose academic record permits should consider graduate training.

The Department of Chemistry offers a program which meets the requirements of the American Chemical Society for professional recognition of a graduate.

### Preparation for careers in actuarial science

Professional status in the insurance industry as an actuary is attained by passing a series of examinations administered by the Society of Actuaries and the Casualty Actuarial Society. Normally some of the examinations are taken while working for an insurance company. A strong mathematics major is required. A list of recommended courses is listed under the major. Up to four of these examinations can be taken while in school. There is a separate process for pension actuaries.

### Preparation for professional work in mathematics and statistics

For careers in research and higher education, a graduate degree is required. The undergraduate preparation should have both breadth and depth. For careers in the application of mathematics or statistics, it is essential that a strong minor be selected in computer science or a field of application, such as business administration, psychology, physics or other sciences. Courses should also be taken to develop communication skills. A graduate degree may not be required, but students with talent should seriously consider graduate work.

### Preparation for public administration

A student should consult with the Department of Political Science to plan a program of courses in political science and related fields.

### Preparation for religious work

Most schools of religion recommend that a student have a broad, general education before starting professional training. The major and minor may be chosen from any area of study. A reading knowledge of at least one foreign language is essential. Because the college is affiliated with certain theological seminaries, a student may elect to pursue the arts-professional curricula and complete the degree program while in the seminary. For further information, contact the college office.

## Arts-professional curricula

It is strongly recommended that the student who expects to enter a professional school first complete a four-year course in the College of Arts and Sciences. A student may desire, however, to secure the Bachelor of

Arts or Bachelor of Science, as well as a professional degree, but may be unable to give the time necessary for the completion of both programs. Therefore, combination arts-professional curricula are offered which enable the student to shorten the time required for the two degrees.

Combination curricula are offered in cooperation with the professional schools and colleges of other institutions. These enable the student to shorten the time required for securing the two degrees by substituting the first year of work in a professional college for the fourth year of the course in arts and sciences. These courses vary in length from five to seven years—the first three years being taken in the College of Arts and Sciences and the remainder in an approved professional school. Upon the satisfactory completion of the work of the first year in the professional college, the student is granted the degree of Bachelor of Arts or Bachelor of Science by Bowling Green.

Permission to graduate from one of these combination curricula must be obtained from the dean before the end of the junior year. A student in these curricula must:

1. Earn a minimum of 92 hours either in residence or by advanced standing including two hours in PEG 100; at least 60 hours must have been taken at Bowling Green in the student's last two academic years prior to entering the professional school;
2. Earn a point average of at least 2.5 in all courses undertaken in residence;
3. Meet the group requirements of the degree sought;
4. Meet the major and minor requirements of the general curriculum selected.

### Other programs

A combined arts-professional curriculum is also offered through the College of Education.

### Arts-Engineering program

270A Overman Hall, 372-2421

The basic science and general education courses required in an engineering curriculum are available at Bowling Green and may be transferred to a college of engineering. However, Bowling Green has no college of engineering and so does not offer specialized engineering course work. In an arts-engineering program, a student can earn both a Bachelor of Science degree from Bowling Green and an engineering degree from one of the following Colleges of Engineering, who have indicated their willingness to design such plans for individual students: Michigan State University, Purdue University, New York University, Ohio Northern University and the University of Michigan.

In an arts-engineering program, each student's program should be planned almost from the beginning in consultation with the pre-engineering adviser and in coordination with the particular engineering college curriculum. The student usually attends Bowling Green for approximately three years, then at the end of the first year in the professional college transfers credit from the engineering college to receive a Bachelor of



Science degree. Similarly, course work credit at Bowling Green is transferred to the engineering college. The total time required to earn an engineering degree may be extended in this program by a semester, quarter or a few summer sessions, because the requirements of two separate degree programs must be met. Students interested in an arts-engineering program should seek advance curriculum information and admission advice from the appropriate engineering college.

### Preparation for Dentistry

519 Life Sciences Building, 372-2232

Admission to dental school is selective and based upon scholarly achievement and aptitude as indicated by scores on the Dental Aptitude Test, which is generally taken in the spring semester of the student's third year of college. The pre-dental student should select an academic program that provides for an alternate career should acceptance into dental school be denied. The Bachelor of Science degree program can be planned to meet all course requirements for dental school and still provide time for sufficient electives in other areas so that the student may attend graduate school or pursue new career alternatives. There are no preferred majors for entrance into dental school, although students generally choose biology or chemistry.

Pre-dental students are encouraged to meet frequently with an adviser to insure progress in meeting the designated prerequisites, to prepare for the Dental Aptitude Test and to make application to dental school.

#### Recommended course sequence:

BIOL 204, 205, 350, 352, 431 and 432  
 CHEM 125, 126 or 135, 136; 201 if 125 series is taken; 341, 342, 308, 309 (plus 445, 446, 447 if CHEM major)  
 PHYS 201, 202 or 211 and 212  
 MATH 130 and 131 or 232 depending on major

A student should take the required courses to complete a major and a minor, as well as the general education requirements for the particular degree program selected, PEG requirements and electives to total 122 hours. A science minor may be desirable.

### Preparation for Law

206 Williams Hall, 372-2030

All accredited law schools in Ohio, like most accredited schools throughout the country, require a college degree for admission. A college degree is also a prerequisite to taking the Ohio Bar Examination and the bar examinations for most other states.

Beyond the minimum requirements for admission, law schools emphasize the value of a broad, general program of arts and sciences for the prospective law student. Above all, they stress the importance of acquiring certain intellectual skills and abilities rather than a particular body of information. Foremost among these skills are facility in writing and speaking, logical reasoning and the use of abstract concepts. Because

the student can develop these skills in a variety of courses, there is no basis on which to prescribe a rigid and detailed "prelaw curriculum" or any particular major.

Law schools, however, uniformly emphasize the special value of courses in which considerable writing is required. In addition, courses in American government help acquaint the student with the basic legislative, administrative and judicial processes of our society. Business and economics courses often provide an understanding of business and financial concepts and terms with which the lawyer may deal. Other disciplines, such as history, philosophy, psychology and sociology, offer concepts, information and perspectives that are important in dealing with modern legal issues. Finally, prelaw students may wish to take a law course taught by case method in order to discover if their aptitudes lie in this direction.

### Preparation for Medicine

519 Life Sciences Building, 372-2232; or  
 112 Hayes Hall, 372-0288; or  
 112 Overman Hall, 372-2824

Admission to medical school is selective and is dependent upon scholarship and aptitude as indicated by the scores attained on the Medical College Admission Test, normally taken during the spring semester of the student's third year. The student should include in the premedical program a course of study to prepare for admission to medical school and for admission to an appropriate graduate school or for an industrial, government or teaching position in case the first choice cannot be realized. To meet the requirements for admission to most medical schools, the Bachelor of Science curriculum can be modified to include the required courses and still provide the student with enough depth in at least one area for graduate work or for career opportunities if medical school is not attended. There is no preferred major for entrance into medical school. Generally, either chemistry or biology is chosen by the premedical student.

The premedical student is urged to confer frequently with the adviser, particularly with respect to planning prerequisite courses for the Medical School Admission Test and for meeting the admission requirements of the medical school of the student's choice.

#### Recommended course sequence

BIOL 204 and 205 (10)  
 CHEM 125, 126 or 135 and 136 (10)  
 CHEM 341 and 342 (10)  
 MATH 130 and 131 (232 optional depending upon major) (8-13)  
 PHYS 201, 202 or 211 and 212 (10)  
 GERM 101 and 102 (8)  
 ENG 112 (3)

In addition, a student should plan to take the required courses to complete a major and a minor; general education group requirements for the degree sought; PEG requirements and electives. Total: 122 hours. Note: the science minor may be desirable.

## Preprofessional preparation

### Preparation for Engineering

270A Overman Hall, 372-2421

The two-year curriculum outlined below closely parallels the introductory course work of engineering schools and is designed for the student who expects to transfer to a college of engineering at the end of two years. Since the requirements in different engineering colleges and in different fields of engineering vary considerably, the student should consult with the pre-engineering program adviser early in the freshman year in order to plan a schedule to meet the requirements of the institution and branch of engineering in which he or she expects to receive a degree.

Engineering is presently a high-opportunity career area, and a pre-engineering program at Bowling Green offers several advantages, especially for those students who are uncertain about an engineering specialty. However, students should be advised that all engineering specialties require a high aptitude for mathematics and quantitative reasoning. In order to complete the curriculum below in two years, a student must be qualified to enroll in MATH 131 during the first semester of the freshman year; this normally requires four years of high school mathematics and good mathematics aptitude.

#### Recommended course sequence

MATH 131, 232, 233 and 332 (16)  
 CHEM 125, 126 or 135 and 136 (10)  
 PHYS 211, 212, 301 and 313 (14)  
 CS 101 or 103 (3)  
 CS 205 (3)  
 DESN 104 (3)  
 ENG 112 (3)  
 Electives

### Preparation for Mortuary Science

503 Life Sciences Building, 372-0361

The Board of Embalmers and Funeral Directors of Ohio requires a minimum of 60 semester hours of general education to be eligible to register with the board prior to entering a college of mortuary science. At least 30 hours must be in the following subject areas, with a minimum hourly distribution of: English (eight hours), science (eight hours), social science (eight hours), fine or applied arts (six hours). For information about colleges accredited by the Commission of Schools of the American Board of Funeral Service Education, write to the agency at 201 Columbia St., P.O. Box 2098, Fairmont, WV 26554.

A cooperative arrangement exists with the Cincinnati College of Mortuary Science, whereby a student can complete three years at Bowling Green, plus the CCMS diploma program and receive a Bachelor of Arts degree with an individualized planned program in mortuary science. For further information, contact G. Lee Caldwell, 205 Administration Bldg., 372-2015.

## Preparation for Occupational Therapy

503 Life Sciences Building, 372-0361

Occupational therapy—an auxiliary medical service in which normal activities are used as remedial treatment in the rehabilitation of patients—is being used increasingly in hospitals, schools, rehabilitation centers and related institutions. Such therapy is prescribed by physicians and applied by trained therapists as part of the treatment of an adult or a child in the areas of orthopedics, psychiatry, tuberculosis, general medicine and surgery.

### Recommended course sequence

ART 102 and 112 (6)  
 BIOL 104, 331 and 332 (10)  
 CHEM 115 (4)  
 ENG 112 (3)  
 TECH 313 and 457 (6)  
 MATH 115 (3)  
 MRA 301 (2)  
 PHYS 201 (5)  
 PSYC 201 and 302 (7)  
 PSYC 403, 405 or 406 (two) (6)  
 SOC 101 and 202 (6)  
 Humanities (10)  
 PEG (2)  
 Electives

In preparing for a career in occupational therapy, the student should complete two years of preprofessional courses, two years of academic instruction in an approved professional school, and 10 months of clinical training.

## Preparation for Optometry

112 Hayes Hall, 372-0288

Requirements vary for admission to the schools and colleges of optometry. Typically, they include courses in English, mathematics, physics, chemistry and biological sciences. Requirements of specific schools should be examined before planning the program for the sophomore year. A list of accredited schools and colleges of optometry in the United States can be obtained from the American Optometric Association, 7000 Chippewa St., St. Louis, MO 63119.

The following two-year pattern coordinates with the program of the School of Optometry of Ohio State University.

### Recommended course sequence:

(62 hours)  
 CHEM 125, 126, 306 and 308 (17) or  
 CHEM 341 and 342 (10)  
 PHYS 201 and 202 (10)  
 BIOL 204 and 205 (10)  
 ENG 112 (3)  
 MATH 130 and 131 (8)  
 PEG 100 (2)  
 Electives

The amount of foreign language to be taken depends upon the requirements of the professional school and the student's high school preparation. Students who do not need foreign language courses should substitute those courses which meet the requirements of the professional school they plan to enter.

## Preparation for Osteopathy

The requirements and recommendations for entrance to schools of osteopathy are essentially the same as those for medical school.

## Preparation for Pharmacy

112 Hayes Hall, 372-0288

All accredited colleges of pharmacy require five years of study to qualify for the pharmacy degree. Two years of the five-year requirement may be satisfied at this University by completing the prepharmacy curriculum outlined below. The state boards of pharmacy usually require a period of practical experience in pharmacy. Students should request information concerning requirements for a certificate to practice pharmacy from the board of pharmacy in the state in which they wish to practice. In Ohio this information may be obtained from the secretary, State Board of Pharmacy, Wyandotte Building, 21 West Broad St., Columbus, OH 43215.

Since colleges of pharmacy vary in their requirements, prepharmacy students should ascertain the requirements of the school they plan to enter before selecting the courses for the second year. The program outlined below prepares the student for transfer to the College of Pharmacy at Ohio State University. It is now possible to enter the College of Pharmacy at Ohio State University after a one-year prepharmacy program.

A list of accredited colleges of pharmacy may be obtained from the American Association of Colleges of Pharmacy, 4630 Montgomery Ave., Suite 201, Bethesda, MD 20014.

### Recommended course sequence:

(62 hours)  
 BIOL 204 and 205 (10)  
 ENG 112 (3)  
 PHYS 201 and 202 (10)  
 MATH 130 and 131 (8)  
 PEG 100 (2)  
 Electives chosen from social sciences, literature and philosophy  
 CHEM 125, 126, 341 and 342 (20)

Some pharmacy schools require additional calculus.

## Preparation for Veterinary Medicine

112 Hayes Hall, 372-0288

Colleges of veterinary medicine require two years of preveterinary medical work for admission; however, a student is advised to apply after a third year of work or after securing a bachelor's degree. The two-year preveterinary medical program which follows is typical, but colleges of veterinary medicine vary greatly in their requirements. Students should obtain information as early as possible about the requirements of the school where they plan to transfer. A list of accredited colleges of veterinary medicine in the United States can be obtained from the American Veterinary Medical Association, 900 N. Meacham Rd., Schaumburg, IL 60172.

The College of Veterinary Medicine of Ohio State University recommends courses in animal husbandry and related areas which cannot be taken at Bowling Green. It is possible for the student who plans a three- or four-year preveterinary medical program to defer them temporarily by substituting advanced biology courses, but it may be more advantageous for the student to transfer after one or two years to the Agriculture-Veterinary Medicine Program at Ohio State University.

### Recommended course sequence:

(62 hours)  
 BIOL 204 and 205 (10)  
 ENG 112 (3)  
 PEG 100 (2)  
 CHEM 125, 126, 306, 308 and 309 (18)  
 MATH 130 (MATH 124 acceptable for a student who enters with prerequisite for physics) (3)  
 PHYS 201 and 202 (10)  
 Electives selected to meet requirements of the college of veterinary medicine to be entered.

## Combined curricula

### Arts-Education curriculum

205 Administration Building, 372-2015

The student who desires to take an arts and sciences degree to qualify for certification to teach in the public schools may take work in education after graduation or qualify for the combined degree program outlined here. On the basis of the accumulative point average, a student may register in both the Colleges of Education and Arts and Sciences for the combined degree as soon as eligible.

The student in the dual-degree program leading to the Bachelor of Arts or Bachelor of Science degree from the College of Arts and Sciences and the Bachelor of Science in Education degree from the College of Education must:

1. secure permission of the deans of both colleges before the end of the junior year;
2. complete the requirements of both colleges for the degrees sought;
3. earn at least 142 hours including education courses.

By careful selection of electives, the program in both colleges can be completed in eight semesters plus one summer. The superior student may increase the number of subjects to be carried each semester and complete the program in less time.

### Other dual degree programs

205 Administration Building, 372-2015

The student who wishes to earn a dual degree involving the College of Arts and Sciences and another undergraduate college within the University may do so by adhering to the following requirements:

1. secure permission to pursue a dual degree program from the offices of both deans before the end of the junior year;
2. meet the general education group requirements of both colleges;
3. present to the dean of the College of Arts and Sciences a program of study of at least 20 credit hours, consisting of courses

not used to fulfill requirements for the degree being pursued in the College of Arts and Sciences;

4. earn a minimum of 142 semester hours for graduation.

### **Certification to teach in the public schools**

365 Education Building, 372-0151, and  
455 Education Building, 372-0151

The student who holds a bachelor's degree in arts and sciences may become certified to teach in the public schools of Ohio with a four-year provisional certificate by fulfilling the state requirements for such certification. These requirements and degree-holder program applications are available in the program advisement office of the College of Education, 365 Education Building.

Several institutions including Bowling Green, offer graduate programs whereby an arts and sciences graduate may take work leading both to certification to teach in the public schools and a master's degree. Announcement of such programs may be inspected in the College of Education, 455 Education Building.

### **Combined Baccalaureate-Master's program in Chemistry**

110 Hayes Hall, 372-2031, or  
205 Administration Building, 372-2015

The combined baccalaureate-master's program in chemistry offers the well-qualified science student the opportunity to complete the Bachelor of Science degree in three years and the Master of Science degree at the end of the fourth. By completing the two degrees in four years, the student may become better prepared to earn the Ph.D. degree because of the more concentrated background. In addition, a preprofessional student may elect either to complete the three-year bachelor of science program and go directly to professional school or to continue on to earn the master of science degree to prepare for a research-oriented career.

The program is structured on a schedule of four years, including summers. Courses should be carefully chosen so that major and group requirements will be completed on time.

#### **First year**

A first-year student will take two semesters each of chemistry and calculus, will complete the English requirement and take social science and/or humanities courses. In the summer session the student will take either eight hours of German (or Russian) or three hours of quantitative analysis, or both.

#### **Second year**

A second-year student completes two semesters of physics and two semesters of organic chemistry and finishes the requirements in social sciences and humanities as well as the physical education requirement. If these have been completed, other courses may be substituted.

#### **Third year**

This year includes two semesters of physical chemistry and electives chosen from

biochemistry or advanced organic chemistry. A course in instrumentation or inorganic chemistry completes the undergraduate chemistry major. Some students may choose independent research or other electives such as differential equations. During the third summer, a student begins research and completes the Bachelor of Science requirements.

#### **Fourth year**

Upon admission to the Graduate College, courses in thermodynamics, kinetics, quantum mechanics, reaction mechanisms, inorganic chemistry and atomic and molecular structure are taken. During the fourth year, the student may become eligible for a stipend as well as tuition waivers for assisting in one or more undergraduate laboratories. In the final summer, the student would normally be expected to complete a formal thesis as part of the master of science program (plan I). Under certain circumstances, however, a student may, by early consultation with an academic adviser, elect the non-thesis option (plan II) and still complete the program within the four-year period.

This program also offers students the option of studying off campus for a semester in a governmental or industrial laboratory, which would likely be done during the summer between the third and fourth years.

### **Other combined Baccalaureate-Master's programs**

205 Administration Building, 372-2015

An undergraduate capable of maintaining high grades can take the undergraduate degree in the middle of the fourth year by carrying an average of 18 hours for seven semesters. The resulting total 126 hours is four more than the required minimum for the undergraduate degree. These four hours might be taken as graduate credit and followed by a full semester of graduate study. A candidate for a graduate degree may not become a candidate for a degree in an undergraduate college with the permission of the dean of the Graduate College.

# School of Art

Fine Arts Building, 372-2786

## Bachelor of Fine Arts Degree

The requirements for the degree of Bachelor of Fine Arts, in addition to the general requirements for the baccalaureate listed on page 7, include completion of:

1. general education group requirements;
2. a specialization in art history, ceramics, crafts, design (environmental or graphic), drawing, jewelry and metalsmithing, painting, prints or sculpture;
3. 42 hours in basic area courses;
4. enough additional courses in art to total 60 hours.

The student who plans to teach art in the public schools may follow the teacher preparation program.

## General education group requirements

### Group I: Communication

Students are required to complete ENG 112 or to demonstrate by examination that they have proficiency in written expression equivalent to that attained by the student who completes that course. (A penalty is imposed if ENG 112 is not completed within the first 60 hours. See page 8.) Each student is required to complete SPCH 102.

### Group II: Foreign language or cultural experience

Each student is required to demonstrate a proficiency in a language and language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (14 hours minimum in same language area, or fewer by advanced placement):

#### German, Japanese, Russian

Completion of GERM 101 and 102 plus a minimum of six additional hours from: 100, 117, 118, 201, 202, 217, 231, 331 or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 201 and 202; or

Completion of RUSN 101 and 102 plus a minimum of six additional hours from RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331 or RUSN 311, 312.

### Romance languages (French, Italian, Latin, Spanish)

#### Option I

FREN 101, 102, 201 and 202; or ITAL 101, 102, 201 and 202; or LAT 101, 102, 201 and 202; or SPAN 101, 102, 201 and 202; or

#### Option II: one of the following:

FREN 111, 112, 211 and 212; or LAT 101, 102 and two of: LAT 141, 142 or 201; SPAN 111, 112, 211 and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

### Group III: Mathematics and science

Each student must complete at least two courses elected from astronomy, biological sciences, computer science, chemistry, geology, mathematics, physics or physical geography (including GEOG 125, 126, 127, 213, 404), including at least one course approved for laboratory credit from a list of approved courses printed in the College of Arts and Sciences *Handbook*.

### Group IV: Social science: economics, ethnic studies, geography, history, political science, psychology, sociology

Each student must complete three courses in one or more of these subjects. A list of approved ethnic studies courses is printed in the College of Arts and Sciences *Handbook*.

### Group V: Arts and humanities: art, literature (American, English, or foreign), American studies, ethnic studies, music, philosophy, popular culture, speech communication, women's studies

Each student is required to complete one course in literature (American, English or

foreign), one course in the fine arts (art, music, theater, television and film), and three additional courses from at least two areas. A list of courses approved for group V requirements is printed in the College of Arts and Sciences *Handbook*. One course taken in the student's major may be counted in this group.

## Majors

120 Fine Arts Building, 372-2786

The School of Art offers specializations in art history, ceramics, crafts, design (graphic and environmental specializations), drawing, jewelry and metalsmithing, painting, prints and sculpture.

### Basic area

Each student is required to complete the following:

ART 102, 103, 112, 205 and 261 (15)

ARTH 145 and 146 (6)

ARTD 211, 212 or 213 (3)

ART 277 or 325 (3)

ART 371 or 373 (3)

select two:

ART 263; 265 or 365; 267 or 315; 320 or 321 (6)

Art History electives (6)

### Recommended course sequences:

*First year* (18 hours)

ART 102, 103, 112 and 205 (12)

ARTH 145 and 146 (6)

*Second year* (18 hours)

ART 261 (3)

ARTD 211, 212 or 213 (3)

ART 277 or 325 (3)

ART 371 or 373 (3)

select two:

ART 263; 265 or 365; 267 or 315; 320 or 321 (6)

*Third year* (9 hours)

Studio Specialization (6)

Art History (3)

*Fourth year* (9 hours)

Studio Specialization (6)

Art History (3)

### Studio specialization

Each student is required to complete at least 12 hours in a specialization listed below. A student should consult each semester with the major instructors concerning progress and course sequence. Courses taken as part of the basic area may not be considered part of the specialization.

## Art History

### Third year

ARTH 445, 446 or 449 (3)  
ARTH 451 or 454 (3)

### Fourth year

ARTH 441 or 442 (3)  
Art History elective (3)

## Ceramics

### Third year

ART 263 (3), 363 (3)

### Fourth year

ART 463 (3), 463 (3)

## Crafts

### Third year

ART 265 (3), 321 (3)

### Fourth year

ART 363 (3)  
select one  
ART 320, 267, 315, 322 or 365 (3)

## Design

Two design specializations are available: graphic and environmental. Each specialization has three components: a basic fine arts core, support field requirements and the specialization core.

### Basic fine arts core

Students in either specialization must complete:

ART 102, 103, 112 and 205 (12)  
ARTH 145 and 146 (6)  
ARTD 211 or 212 and 213 (6)  
ART 261, 263 or 321 (3)  
ART 277, 371 or 373 (3)  
ART 419 (2)

A nine-hour portfolio review is required for admission to the advanced level design programs. Consult the School of Art.

### Recommended course sequences:

#### First year (18 hours)

ART 102, 103, 112 and 205 (12)  
ARTH 145 and 146 (6)

#### Second year (14 hours)

ART 261, 263 or 321 (3)  
ARTD 211 or 212, 213 (6)  
ART 277, 371 or 373 (3)  
ARTD 419 (2)

#### Third year (12 hours)

Support field courses (6)  
Design specialization (6)

#### Fourth year (12 hours)

Support field (6)  
Design specialization (6)

### Environmental design specialization core

#### Third year

ARTD 313 (3), 417 (3)

#### Fourth year

ARTD 418 (3), ARTH 416 (3)

### Support field requirements

At least 12 hours of courses must be taken and should be chosen from a list of courses recommended and approved by the design adviser in the School of Art. Six hours of the support field must be design-based.

## Graphic design specialization core

### Third year

ARTD 311 (3), 312 (3)

### Fourth year

ARTD 412 (3), 413 (3)

### Support field requirements

At least 15 hours of courses must be taken and should be chosen from a list of courses recommended and approved by the design adviser in the School of Art. Nine hours of the support field must be design-based.

### Other programs

A product design specialization is available as a Bachelor of Science in Technology degree in the School of Technology, in cooperation with the School of Art's design division. A major in interior design is available through the Department of Home Economics. A major in design technology is available through the School of Technology.

## Drawing

### Third year

ART 206 (3), 305 (3)

### Fourth year

ART 405 (3), 405 (3)

## Jewelry and metalsmithing

### Third year

ART 320 (3), 321 (3)

### Fourth year

ART 322 (3), 421 (3)

## Painting

### Third year

ART 372 or 374 (3) and ART 372 or 374 (3)

### Fourth year

ART 471 or 473 (3) and ART 471 or 473 (3)

## Printmaking

### Third year

ART 277 (3), 377 (3)

### Fourth year

ART 377 (3), 477 (3)

## Sculpture

### Third year

ART 361 (3), 361 (3)

### Fourth year

ART 461 (3), 461 (3)

## Teacher preparation

116 Fine Arts Building, 372-2786

The teacher preparation program is available as a combined arts and sciences/education curriculum which leads to the Bachelor of Fine Arts degree with certification to teach in the public schools. It offers extended in-depth experiences in the studio component of the art education content specialization. Students in the B.F.A. program may qualify for teacher certification through successful completion of the teacher education certification requirements. This combined program will generally require an addi-

tional academic year to complete. Though it is possible to complete the education requirements in a fifth year of study, it is highly recommended that B.F.A. students desiring Ohio teacher certification attend to requirements earlier in their programs.

A student who follows this curriculum registers each semester in both the Colleges of Arts and Sciences and Education and has the program approved by the appropriate advisers. This program may be continued after the freshman year only with the approval of the School of Art staff. The student who must take two years of foreign language and who follows a program in aerospace studies or in military science needs to take more than the usual time to complete this program.

The following courses are required for teacher certification: The basic area courses, a studio specialization and two additional crafts electives. SOC 101, PSYC 201, PHIL 204, a POPC elective (selected for general education requirements) ARTE 252, 352, 353 and 2-3 hours selected from: ARTE 470, 482, 483, 487 and 495. EDFI/EDCI 202, EDFI 302, 402, 408, EDSE 311. Ten hours of ARTE 492 and/or ARTE 497.

These courses are included in the recommended sequence of courses outlined below.

### Recommended sequence of courses:

#### First year (33 hours)

ART 102, 103 and 112 (9)  
Art history 145 and 146 (6)  
English 111, 112\* (6)  
Sociology 101 (3)  
Speech 102 (3)  
Natural science (4)  
PEG 100 (2)

#### Second year (33 hours)

Art 205 and 261 (6)  
Two: Art 263; 265 or 365; 267 or 315;  
320 or 321 (6)

Art 211, 212 or 213 (3)

Foreign language\* (6)  
Science/Math (3)  
Psychology 201 (4)  
EDFI 202 and 302 (5)

#### Third year (32 hours)

Art 277 or 325 (3)  
Art 371 or 373 (3)  
Art history elective (3)  
Art specialization (6)  
ARTE 252, 352 (6)  
Literature and Popular Culture elective (6)  
EDSE 311 (2)  
Philosophy 204 (3)

#### Fourth year (33 hours)

ARTE 353 (3)  
ARTE 470, 482, 483, 487 or 495 (3)  
EDFI 402, 408 (5)  
Art history elective (3)  
Art electives (crafts) (6)  
Art specialization 1 (6)  
Social science electives (6)

#### Fifth year (10 hours)

Art 492, 497 (10)

\*May vary depending on placement test.



**Other programs**

A Bachelor of Arts program in art is offered by the School of Art in the College of Arts and Sciences. In addition, a Bachelor of Science program in visual arts education is available through the College of Education.

A Bachelor of Science in Art Therapy is offered through the College of Health and Community Services.

# School of Speech Communication

109 South Hall, 372-2136

## Radio, television and film instruction

The School of Speech Communication maintains complete video, audio and film production facilities in South Hall.

The television production complex houses a color television studio augmented by portable production as well as editing equipment. Audio production includes studios and the facilities of two radio stations. Film contains Super 8 and 16mm production and editing capability.

## Television center

Located on south campus, the University Television Center contains public television station WBGU-TV and closed-circuit instructional television production and distribution facilities.

The center's staff of 30 full-time professional broadcasters is assisted by graduate assistants, doctoral fellows and more than 50 undergraduate employees.

WBGU-TV, a regional public television station serving northwestern Ohio and northeastern Indiana, broadcasts instructional television programs to elementary and secondary classrooms during the day and cultural and public affairs programs to the general public throughout the evening. It is affiliated with the Public Broadcasting Service (the national public television network) and with the Ohio ETV Network. The station's local program production schedule provides student opportunities for professional production experience in television.

The Closed-Circuit Instructional Television Office provides the campus community with telecourses and a variety of other educational television and film materials used by academic departments. A campus-wide dual television cable system carries commercial station programs and educational programming to all residence halls. The system also provides opportunity for intra-University communications.

The center's television staff contracts with state and other agencies for production projects, some of which attain nationwide distribution.

## Radio stations

WBGU, the University FM radio station, broadcasts on 88.1 megahertz with 1,350

watts. Programming consists of news, public affairs, cultural features and classical, jazz, folk and rock music. The station is operated by the radio-tv-film program of the School of Speech Communication closely cooperating with other University units such as the School of Journalism, the College of Musical Arts and the Popular Culture Department. Faculty and student volunteers provide the majority of the station's staff. WBGU-FM's transmitter and studio are located in 413 South Hall.

Carrier-current WFAL is a student-operated commercial AM radio station broadcasting to residence halls on campus. The station provides communication to and among students while offering commercial programming designed to meet student interests. The station is heard in the residence halls on 680 kc. WFAL operates throughout fall and spring semesters. The office and studio are located in 413 South Hall.

## Forensics

The forensics program is a nationally recognized intercollegiate activity, traveling throughout the midwest and the nation to compete against students from other colleges and universities. Both individual events and debate are included in the program, which has a number of graduate students to coach the competitors. Limited financial support is available through talent grants.

## University Theater

The University Theater, a division of the School of Speech Communication, serves as a laboratory for University students interested in theater. The University Theater presents twelve productions during the academic year. Plays and musicals that are presented represent a wide range of dramatic literature in a variety of production styles. The productions are presented in Main Auditorium and the Joe E. Brown Theater, both in University Hall. Open auditions are held for all productions and the entire University community is invited to participate. Opportunities are available for students to work in all aspects of theater production from management and promotion to acting, directing, designing and crew work.

The theater program offers talent scholarships in acting to qualified undergraduates. The scholarships are awarded on a competitive basis with students submitting applications, letters of recommendation and doing a

live audition. Students interested in obtaining a talent scholarship audition form should contact the theater office, 322 South Hall.

The theater program also sponsors the Huron Summer Playhouse each year. Students must audition to be considered for membership in the company. Each year the Playhouse presents four plays and two musicals during an eight week season. The Playhouse provides students with a full range of summer stock experiences.

The theater program is accredited by the National Association of Schools of Theatre.

## Speech and hearing clinic

The School's Speech and Hearing Clinic serves the dual purpose of providing student training as well as diagnostic and therapy services for persons who have disorders of communication. Approximately 10,000 hours of services are provided annually through the clinic and its off-campus affiliates in Northwest Ohio. The communication disorders program, located in 338 South Hall, is a pre-professional course of study. Students, who later complete the master's degree, become eligible for state licensure and national certification. The Clinical Program is certified by the American Speech-Hearing-Language Association.

## Bachelor of arts in communication degree

The requirements for the degree of Bachelor of Arts in Communication (BAC) include completion of the general requirements for the baccalaureate listed on page 7 and:

1. Completion of the general education requirements in the six areas listed below.
2. Completion of a specialized program in communication studies as defined below;
3. Completion of at least 52 hours outside the School of Speech Communication.

## General education group requirements

### Group I: Communication

Students are required to complete ENG 112 or to demonstrate by examination that they have proficiency in written expression equivalent to that attained by the student who

completes that course. (A penalty is imposed if ENG 112 is not completed within the first 60 hours. See page 8.) SPCH 102, THEA 202 and IPCO 305, are also required.

### Group II: Foreign language or cultural experience

Each student is required to demonstrate a proficiency in a language or language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (14 hours minimum in the same language area, or fewer by advanced placement).

#### German, Japanese, Russian

Completion of GERM 101 and 102 plus a minimum of six additional hours from GERM 100, 117, 118, 201, 202, 217, 231, 331 or GERM 260, 315, 316, or

Completion of JAPN 101, 102, 201 and 202, or

Completion of RUSN 101 and 102 plus a minimum of six additional hours from RUSN 100, 201, 202, 303, 311, 312, 313, 315, 316, 317, 319, 331 or RUSN 311, 312.

#### Romance languages (French, Italian, Latin, Spanish)

##### Option I

FREN 101, 102, 201 and 202; or ITAL 101, 102, 201 and 202; or LAT 101, 102, 201 and 202; or SPAN 101, 102, 201 and 202

##### Option II: one of the following:

FREN 111, 112, 211 and 212; or LAT 101, 102 and two of LAT 141, 142 or 201

SPAN 111, 112, 211 and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

#### Cultural experience

Those students who have completed two years of one foreign language in high school may select a planned program of at least four courses involving study of foreign or ethnic cultures drawn from an approved list printed in the School of Speech Communication *Handbook*.

### Group III: Mathematics and science

Each student must complete at least two courses elected from astronomy, biological sciences, computer science, chemistry, geology, mathematics, physics or physical geography (including GEOG 125, 126, 127, 213, 404), including at least one course approved for laboratory credit from a list of approved courses printed in the College of Arts and Sciences *Handbook*.

### Group IV: Social sciences: economics, ethnic studies, geography, history, political science, psychology, sociology

Each student must complete three courses in two of these areas. Students may count two courses from their specialized program/support field in this group as appropriate. A list of approved ethnic studies courses is printed in the College of Arts and Sciences *Handbook*.

### Group V: Arts and humanities: art, literature, (American, English, or foreign), film, music, philosophy, popular culture, theatre

Each student must complete three courses in at least two of these areas from an approved list of courses. Students may count one course from their specialized program/support field in this group as appropriate. A list of courses approved for group V requirements is printed in the College of Arts and Sciences *Handbook*.

### Group VI: Cognate studies experience

Students must complete, as specified by the nature of their specialized programs, six additional courses from at least two of the above groups. No more than three courses from the School of Speech Communication may be used to satisfy this requirement.

### Specialized program

Each student is expected to present a program of specialization in communication study from existing structured options (theater, communication disorders, radio-television-film, interpersonal and public communication), or a previously approved individual program to approximate the equivalent of a range from 42-54 hours.

The following options are available:

1. Theater: All BAC students with a specialization in theater must take the following theater core courses: THEA 241, 243, 341, 347 and 348. BAC students specializing in theater may develop specialized programs in consultation with their adviser in the following areas: musical theater, acting, directing, design and technical theater, developmental drama and theater management.

2. Interpersonal and Public Communication: All BAC students with a specialization in interpersonal and public communication must take the following IPCO core courses: IPCO 203, 204, 205, 306 and 406. BAC students specializing in interpersonal and public communication may develop specialized programs in consultation with their adviser in the following areas: interpersonal communication, organizational communication and public communication.

3. Radio-Television-Film: All BAC students with a specialization in radio-television-film must take the following RTVF core courses: RTVF 255, 260, 262, 263, 365 and 366. BAC students specializing in radio-television-film may develop specialized programs in consultation with their adviser in the following

areas: audience research, radio, television, film and broadcast sales and management. Finally, all students must complete a support field of 9-12 semester hours in a field pertinent to the specialized program. The support field must be approved by the student's adviser.

4. Communication Disorders: All BAC students with a specialization in communication disorders must take the following CDIS core courses: CDIS 223, 224, 301, 311 and 321. BAC students specializing in communication disorders may develop specialized programs in consultation with their adviser.

5. Transdisciplinary Studies: All BAC students with a major interest in two or more of the above communication areas work closely with faculty from those areas to create an individualized program that represents 42-53 hours of course work which has been previously approved by the school. Students may combine courses from speech communication disciplines as well as courses outside the school. Study culminates in a senior seminar where the student writes a major, original research paper.

#### Additional degree programs

A Bachelor of Arts degree in speech communication is also offered by the College of Arts and Sciences. The student who plans to teach speech in the public schools should follow the Bachelor of Science in Education program offered in the College of Education. The Bachelor of Science in Education degree for Speech and Therapy majors is also offered by the College of Education. The College of Health and Community Services offers the Bachelor of Science in Speech Pathology and Audiology.

# ● College of Business Administration

- Karl E. Vogt, Ph.D., dean, 371 Business Administration Building, 372-2747
- Edwin Tonnesen, Ph.D., associate dean, 371 Business Administration Building, 372-2747
- Margaret P. Close, M.A., program advisement director, 371 Business Administration Building, 372-2747
- James S. West, Ph.D., director, Graduate Studies in Business, 367 Business Administration Building, 372-2488
- Russell L. Brock, M.Ed., (acting) director, Management Center, 369 Business Administration Building, 372-2807
- Charles R. Chittle, Ph.D., director of International Business Programs, 309 Business Administration Building, 372-0080
- Department of Accounting and Management Information Systems, Mark Asman, Ph.D., chair, 332 Business Administration Building, 372-2767
- Department of Applied Statistics and Operations Research, Robert Patton, Ph.D., chair, 344 Business Administration Building, 372-2363
- Department of Business Education, Mearl R. Guthrie, Ph.D., chair, 242 Business Administration Building, 372-2901
- Department of Economics, Bevars Mabry, Ph.D., chair, 301 Business Administration Building, 372-2646
- Department of Finance and Insurance, Raj Padmaraj, Ph.D., chair, 201 Business Administration Building, 372-2520
- Department of Legal Studies, Lynn Ward, J.D., chair, 253 Business Administration Building, 372-2376
- Department of Management, Chan Hahn, Ph.D., chair, 264 Business Administration Building, 372-2946
- Department of Marketing, Stephen A. Goodwin, Ph.D., chair, 234 Business Administration Building, 372-2401
- School of Journalism, John Huffman, Ph.D., (acting) director, 103 University Hall, 372-2076
- Department of Aerospace Studies, Lt. Col. Clarence J. Landon, M.A., chair, 164 Memorial Hall, 372-2176
- Department of Military Science, Lt. Col. Carl Chaboudy, M.A., chair, 151 Memorial Hall, 372-2476

## Academic objectives

The foremost consideration in all curricula in business administration is to provide each student with a broad, liberal education. Thus,

many of the degree requirements are in the humanities, the sciences and the social sciences. The courses in business administration are designed not only to foster professional competency but also to develop the whole individual as a responsible, useful citizen in society.

Professional education in business administration should not be confused with vocational education. Programs in business administration are designed to help students acquire the competencies, understandings and attitudes necessary for the assumption of leadership and decision making roles. Instruction in business administration emphasizes development of critical thinking skills and problem solving capabilities.

To provide a sound foundation and broad appreciation of the world of business, a student is required to complete a common core of basic business courses. These courses provide a student with knowledge of the interrelationships of the functional areas of business and of the tools necessary for decision making.

Each curriculum provides the student with an opportunity for developing an acceptable level of competency in the field. Finally, a substantial amount of latitude is provided in all curricula to permit the student to elect additional courses to round out the total educational experience.

Thus, the curricula in business administration provide the student with a total educational experience, a breadth of understanding of the business world and a depth of knowledge in a particular business field. The degree in business administration serves as preparation not only for assuming a position of responsibility in business and society but also for graduate study in business administration, law and public administration.

## Standards of performance and accreditation

To meet the challenges of the business world the academic program of the College of Business Administration requires high standards of performance. Programs are designed to provide an intellectual challenge to a student who wishes to assume the responsibility for tomorrow's business leadership.

The College of Business Administration is a fully accredited member of the American Assembly of Collegiate Schools of Business.

Degrees granted by such accredited colleges are widely recognized by major businesses and graduate schools.

Students of outstanding achievement in business and management may be recognized by Beta Gamma Sigma, the national scholastic honor society. The purposes of Beta Gamma Sigma are to encourage and reward scholarship and accomplishment, to promote the advancement of education in the art and science of business, and to foster integrity in the conduct of business operations.

Credit by transfer from a two-year, fully accredited institution is not accepted for most business courses which require junior or senior standing at Bowling Green. However, should transfer students think they have sufficient background in the subject matter of a course, they may take an examination for credit in these, a CLEP test, or successfully complete an advanced course. Such validation techniques result in transfer credit for the course being accepted.

Credit by transfer from a four-year, fully accredited institution is accepted for most courses.

## Organization of the college

The College of Business Administration consists of eight departments of instruction in business administration and a School of Journalism. The eight departments — accounting and management information systems, applied statistics and operations, research, business education, economics, finance and insurance, legal studies, management, and marketing — offer 22 undergraduate sequences and a comprehensive graduate program covering the major phases of business activity.

The following degrees and majors are offered:

- College of Business Administration
- Bachelor of science in business administration
  - Accounting
  - Administrative management
  - Advertising
  - Business pre-law
  - Economics
  - Finance
  - General business
  - Health care administration
  - Human resources management
  - Industrial and labor relations

Insurance  
 International business  
 Management information systems  
 Marketing research  
 Operations research  
 Procurement and materials management  
 Production and operations management  
 Public and institutional administration  
 Retailing  
 Secretarial administration  
 Selling and sales management  
 Statistics  
 Bachelor of science in economics  
 Economics  
 Associate in applied business  
 Two-year executive secretarial  
 Business administration—Education  
 School of Journalism  
 Bachelor of science in journalism  
 Broadcast journalism  
 Magazine journalism  
 News-editorial  
 Photojournalism  
 Public relations

## Study abroad

The College of Business Administration offers an opportunity to enroll in a five-week summer session at a business school in Nantes, France. Courses are taught in English and carry nine hours credit. Special courses in the French language are optional. The program is contingent upon enrollments. See page 12 for additional information.

## Bachelor of science in business administration

All students who wish to pursue the bachelor of science in business administration degree will enroll in the pre-professional core (offered in the freshman-sophomore years) prior to formal entry into the BSBA program. Admission to the BSBA program will depend upon completion of the pre-professional core courses with a minimum grade point average of 2.25. The courses which comprise the pre-professional core are Accounting 221-222, Business administration 203, Economics 202-203, Management information systems 200, and Statistics 211-212. Students apply for admission to degree candidacy and select a major field of study during the spring semester of the sophomore year.

In addition to successful completion of the pre-professional core, a candidate for the degree of bachelor of science in business administration must complete the general requirements for graduation listed on page 7 and the following:

1. meet the general education group requirements listed below, preferably in the freshman and sophomore years;
2. meet the professional group requirements and specific requirements for an area of specialization.

## General education requirements

### Group I: Communication

Each student is required to complete ENG 112, and 3 hours of communication electives. If a student is exempt from ENG 111, 3 additional hours of nonbusiness electives are required. ENG 110 may also be required, but only 6 hours of English may be counted toward graduation. A penalty is assessed if ENG 112 is not completed within the first 90 hours. See page 8.

### Group II: Foreign language or cultural experience

No requirements; see Group V.

### Group III: Mathematics, science, and quantitative measurements

Each student is required to complete two basic mathematics courses (see professional specialization areas for specific courses); and six hours of science, or mathematics (MATH 232 and 233), or computer science (not CS 100).

### Group IV: Social and behavior sciences

Each student is required to complete 9 hours chosen from courses in GEOG (except GEOG 125, 126, 127, or 213), HIST, POLS, PSYC and SOC.

### Group V: Humanities

Each student is required to complete six hours of credit from an approved list of humanities courses in the areas of ART, foreign language, literature, music, PHIL, POPE and THEA. A list of acceptable courses is available in the College of Business Administration Office or from a faculty adviser.

### Non-business electives

Each student is required to complete 4 to 10 additional hours in nonbusiness fields depending on English placement. An academic adviser assists each student in selecting courses which broaden or deepen the student's general education. Courses chosen must not be in business administration.

### Pre-professional core

In the sophomore year, each student is required to complete 24 hours in: ACCT 221 and 222; ECON 202 and 203; STAT 211 and 212; MIS 200 and BA 203.

### Professional requirements

#### Professional core

Each candidate is required to complete a common core of professional courses. For most majors these courses are FIN 300, MGMT 300, MKT 300, LEGS 301, MGMT 360, OPRE 380, BA 405 and at least two junior-level courses in ECON (see major areas for specific courses as some variations exist).

#### Major

Each student must complete the requirements for at least one major. Requirements for the majors are listed on the following pages.

### Electives

The remainder of the academic program consists of electives to meet the student's specific educational objective. These electives should be selected in consultation with the student's adviser. Some majors specify certain courses which in the opinion of the faculty, have a special importance: A student may cross college lines in meeting this requirement and take academic work in any of the departments of the University.

## The curricula

The pages which follow show how and when requirements may be met. Whenever possible, 100-level courses should be taken during the freshman year; 200-level courses during the sophomore year; 300-level courses during the junior year; and 400-level courses during the senior year. Following these levels is particularly important in core courses. Each of the majors and concentrations within a major is different in its requirements; therefore, each is given in its entirety to permit the student to see the major as an integrated whole and to follow the requirements with ease.

## Accounting

332 Business Administration Building,  
372-2767

The curriculum in accounting is designed for the student who wishes to prepare for a career as a professional accountant with industry, government, nonprofit organizations or for public accounting practice as a CPA. Opportunities exist to work in such specialized areas as auditing, taxes, governmental, costs and systems or management advisory services. Students interested in specializing should consult their academic advisers for proper course selection.

### CPA examination and licensing requirements

To qualify as a candidate for the CPA examination in the State of Ohio, one must hold at least a bachelor's degree (not necessarily in accounting or business) and have a minimum of 24 semester hours of accounting, which may include 3 hours of computer-related training. Graduation from BGSU with an accounting major fulfills these requirements, but additional elective courses in accounting may be desirable. Students may sit for the CPA examination (given in May and November) if they are within 60 days of graduation.

To receive the CPA certificate and license to practice in Ohio, a candidate also must complete two years in public accounting or four years in another accounting-related position. One half the work experience may be waived if the candidate has a master's degree.

For more information and examination applications, contact the Accountancy Board of Ohio, 65 South Front Street, Suite 222, Columbus, Ohio 43215 (614-466-4135). Applications are due 60 days before the examination. Education and experience



requirements differ in other states; contact the appropriate state board to determine its requirements.

### Matriculation into the accounting major

Students who plan to obtain the bachelor of science in business administration degree with an accounting major should enroll in the pre-accounting program within the College of Business Administration. To be admitted as a candidate for the bachelor of science in business administration degree program as an accounting major, a student must:

1. attain an all-university accumulative grade point average of 2.6 or better.
2. complete a minimum of 51 semester hours of University credit.
3. complete ACCT 221 and 222 with a grade of C or better in each.

### Graduation requirements

A candidate for the bachelor of science in business administration degree with a major in accounting must:

1. meet general University and College of Business Administration requirements as outlined on pages 7 and 8.
2. complete a minimum of 18 hours of accounting courses beyond the introductory courses ACCT 221, 222.
3. attain a grade of C or better in all of the following: ACCT 221 and 222, ACCT 321, 322, 331, 332, 351, and 441.

*First year* (32 hours)  
ENG 111 and 112 (3-6)  
MATH 124 and 125 (8)

or  
MATH 131 (5)  
PEG 100 (2)  
Electives (16-22)

*Second year* (30 hours)  
MIS 200 (3)  
STAT 211 and 212 (6)  
ACCT 221 and 222 (6)  
ECON 202 and 203 (6)  
BA 203 (3)  
Electives (6)

*Third year* (30 hours)  
ACCT 321, 322, 331, 332, 351 (15)  
MGMT 300\* and 360 (6)\*  
OPRE 380\* (3)  
MKT 300\* (3)  
FIN 300\* (3)

*Fourth year* (30 hours)  
ACCT 441 (3)  
ECON 302 (3)  
ECON 303 or 311 (3)  
LEGS 301 (3)  
BA 405 (3)  
Electives (15)

*Electives* (hours included above)  
Electives should be chosen to meet the following general education group requirements:  
Group I (3)  
Group III (6)  
Group IV (9)  
Group V (6)

\*must complete before registering in BA 405

## Administrative management

242 Business Administration Building,  
372-2901

This program is designed for the student who wishes to specialize in the planning, organizing and controlling of office work. This curriculum introduces the student to the administrative functions of office systems and procedures, records management, data processing and office organization and management. Graduates of this program may obtain employment in a variety of office occupations involved in information processing or management.

*First year* (32 hours)  
BUSE 111 (3)\*  
ENG 111 and 112 (3-5)  
MATH 124 and 125 (8)  
or  
MATH 131 (5)  
Communication elective (3)  
PEG 100 (2)  
Electives (11-14)

*Second year* (30 hours)  
MIS 200 (3)  
ACCT 221 and 222 (6)  
ECON 202 and 203 (6)  
BA 203 (3)  
STAT 211 and 212 (6)  
BUSE 211 (2)  
Electives (4)

*Third year* (30 hours)  
BUSE 301 (3)  
ECON 302 or 304 (3)  
FIN 300 (3)  
MKT 300 (3)  
LEGS 301 (3)  
ECON 303 or 311 (3)  
MGMT 300 (3)  
MGMT 360 (3)  
OPRE 380 (3)  
BUSE 335 (3)

*Fourth year* (30 hours)  
BUSE 455 (3)  
MGMT 361 (3)  
MGMT 461 (3)\*  
BA 405 (3)  
Electives (18)

\*A student with one or more years of typing credit will have the typewriting requirement waived. In the place of the typewriting course, the student must take MGMT 461

## Advertising

234 Business Administration Building,  
372-2041

This is an area of concentration within the field of marketing which is designed for the student who is interested in pursuing a career in advertising in a commercial or industrial organization, or in an advertising agency. For other areas of concentration in marketing, see marketing research, retailing and selling and sales management. Also, see marketing for an overview of all areas of concentration.

*First year* (32 hours)  
ECON 202 (3)  
ENG 111 and/or 112 (3-6)  
MATH 124 and 125 (8) or MATH 131 (5)  
Communication elective (3)  
PEG 100 (2)  
Other electives (10-16)

*Second year* (30 hours)  
ACCT 221 and 222 (6)  
BA 203 (3)  
ECON 203 (3)  
MIS 200 (3)  
STAT 211 and 212 (6)  
Electives (9)

*Third year* (30 hours)  
ECON 302 or 304 (3)  
ECON 303 or 311 (3)  
FIN 300 (3)  
MGMT 300 and 360 (6)  
MKT 300, 410 and 420 (9)  
OPRE 380 (3)  
Electives (3)

*Fourth year* (30 hours)  
BA 405 (3)  
LEGS 301 (3)  
MKT 402, 411 and 412 (9)  
Electives (15)

*Electives* (hours included above)  
Electives should be chosen so as to minimally meet the following general education group requirements:  
Group I (6-9)  
Group III (11-14)  
Group IV (9)  
Group V (6)

## Business pre-law

253 Business Administration Building,  
372-2376

The program's intent is to provide the student with a broad foundation in business and economics with a major concentration designed to enhance one's communication skills and critical thinking abilities. Emphasis on writing, research and a legal approach to problem solving provide the framework of the major concentration.

This combination of experiences should enrich a student's understanding of the interaction of business, government and society. Such experience would be appropriate for law school candidates or any student seeking a firm foundation in business and economic concepts but does not desire to narrow his or her major concentration to a specialized area.

*First year* (32 hours)  
ENG 110 or 111 and 112 (3-6)  
MATH 124 or 125 (8) or 131 (5)  
PEG 100 (2)  
ENG 200, 261, 262, or 263 (3)  
Communication elective (3)  
Electives (13-16)

*Second year* (30 hours)  
ACCT 221 and 222 (6)  
STAT 211 and 212 (6)  
ECON 202 and 203 (6)  
ENG 207 (3)  
MIS 200 (3)  
BA 203 (3)  
Electives (3)

*Third year* (30 hours)  
ECON 303 or 311 (3)  
MGMT 300\* and 360\* (6)  
ECON 302 or 304 (3)  
LEGS 301 and 305 (6)  
FIN 300\* (3)  
MKT 300\* (3)  
OPRE 380\* (3)  
Electives (3)

*Fourth year* (30 hours)  
BA 405 (3)  
LEGS at 300 or 400 level (3)  
LEGS 421 and 491 (6)  
Electives (18)

**Electives** (hours included above)

Electives should be chosen to meet the following general education group requirement:

Group I (3)

IPCO 204 suggested.

Group II (6)

Group V (6) (must include ENG 200, 261, 262, PHIL 103 suggested).

Group IV (9) (HIST 205, 353, 433; and/or POLS 201 suggested)

\*must complete before registering for BA 405.

## Economics

301 Business Administration Building,  
372-2646

Areas of specialization in economics (see below) are programs of related courses designed to provide the student with those occupational skills in each specialized field sufficient to analyze its unique, technical economic problems; a foundation upon which the future executive can develop capacities to formulate and analyze policy; and a background ideally suited for advanced professional training in law, administration or business, or for graduate studies in economics. Students are encouraged, in consultation with their academic advisers, to select areas of specialization related to their individual career goals.

**First year** (32 hours)

ENG 111 and 112 (3-6)

MATH 124 and 125 (8) or MATH 131 (5)

Communication elective (3)

PEG 100 (2)

MIS 200 (3)

Other electives (10-16)

**Second year** (30 hours)

ACCT 221 and 222 (6)

STAT 211 and 212 (6)

BA 203 (3)

ECON 202 and 203 (6)

Electives (9)

**Third year** (30 hours)

ECON 302 and 303 (6)

FIN 300 (3)

MGMT 300 and 360 (6)

Economics area of specialization (6)

LEGS 301 (3)

MKT 300 (3)

Elective (3)

**Fourth year** (30 hours)

ECON 400, or 401, or 402 (3)

Economics area of specialization (9)

BA 405 (3)

Electives (15)

**Electives** (hours included above)

Electives should be chosen to meet the following general education group requirements:

Group I (3)

Group III (6)

Group IV (9)

Group V (6)

**Areas of specialization** (15 hours)

The specialization may include one approved course from outside the Economics Department. In addition to the following list, students may, with their adviser's approval, design under the general economics area a program tailored to individual career needs. The following sequences are recommended:

**Business economics**

ECON 304, 402\*\*, 404, 471 and/or ECON elective (15-12)

BA 406, ACCT 331, or LEGS 417 (0-3)

**Quantitative economics and forecasting**

ECON 401\*\*, 402\*\*, 404, 414 and/or ECON elective (15-12)

STAT 315 or 404 (0-3)

**Urban real estate**

ECON 311, 332, 436, 461, and/or 462 (15-12)

FIN 342, INS 465, or LEGS 415 (0-3)

**Urban/regional planning**

GEOG 402, 426; POLS 421, 430; SOC 413;

and/or HIST 403 or ECON elective (3)

ECON 332, 436, 460 and 462 (12)

**Monetary economics and financial institutions**

ECON 311, 351, 414, and 452 (12)

FIN 360 or 461, or ECON elective (3)

**Government finance**

ECON 331, 332, 414 and 436 (12)

POLS 331, 332, 459, or ACCT 423, or ECON elective (3)

**International trade and development**

BA 390, LEGS 406, MGMT 471, BA 450, or

ACCT 424, or ECON elective (3)

ECON 351, 451, 452 and 454 (12)

**Comparative economic development**

ECON 351, 454, 460, 472 (12)

LEGS 305; POLS 423, 460; and/or SOC 419, or ECON elective (3)

**Labor economics and relations**

ECON 321, 343, 422, 423, and/or 424 (15-12)

LEGS 419, MGMT 361, HIST 405, or PSYC 452 (0-3)

**Industrial regulation**

ECON 422, 425, 435, 447, and/or 471 (15-12)

BA 403 and/or LEGS 421 (0-3)

**General economics**

ECON 473 and ECON electives (15)

**Other programs**

The College of Business also offers the bachelor of science in economics. Programs in economics also are available through the College of Arts and Sciences and the College of Education.

\*Must complete before registering for BA 405.

\*\*May not count as part of 15 hour area of concentration if taken to satisfy the professional core requirement.

## Finance

201 Business Administration Building,  
372-2520

This is a curriculum for a student who is interested in the financial management of a business firm, a financial institution such as a commercial bank or savings and loan association and in investment analysis and management.

**First year** (32 hours)

ENG 110 or 111 and 112 (3-6) (Group I)

Communication elective (3) (Group I)

PEG (2)

MATH 124 and 125 (8) or 131 (5)

Electives (Group III, IV or V) (13-19)

**Second year** (30 hours)

ACCT 221 and ACCT 222 (6)

STAT 211 and STAT 212 (6)

ECON 202 and ECON 203 (6)

MIS 200 (3)

BA 203 (3)

Electives (Group III, IV or V) (6)

**Third year** (30 hours)

ACCT 321 and 322 (6) or ACCT 331 and 332 (6) or ACCT 327 and 337 (6)

ECON 303 or 311 (3)

FIN 300,\* 330, 360 (9)

MGMT 300 (3)

LEGS 301 (3)

ECON 302 or 304 (3)

MKT 300 (3)\*

**Fourth year** (30 hours)

FIN 450 (3)

OPRE 380 (3)\*

MGMT 360 (3)\*

BA 405 (3)

FIN electives (9)

Electives (Group III, IV or V) (6)

Other electives (3)

**Electives** (hours included above)

Group I (6-9)

Group III (11-14)

Group IV (9)

Group V (6)

Non-business electives (4-10)

Finance (9) (Any three of FIN 342, FIN 433,\*\* FIN 436, and 461) Other elective (3) (ACCT 340, ENG 488; ECON 331, 351, 402; MKT 340, OPRE 480, any 400-level FIN and INS course suggested)

\*Prerequisite for BA 405

\*\*Prerequisite for FIN 436

## General business

371 Business Administration Building,  
372-2747

This is a curriculum for students who desire a broad business background with a minimum of specialization, or who desire a program tailored to specific needs.

**First year** (32 hours)

ENG (110/111), ENG 112 (3-6)

MATH 124 and 125 (8)

MATH 131 (5)

Communication elective (3)

PEG 100 (2)

Other electives (13-19)

**Second year** (30 hours)

ACCT 221 and 222 (6)

STAT 211 and 212 (6)

ECON 202 and 203 (6)

MIS 200 (3)

BA 203 (3)

Electives (6)

**Third year** (30 hours)

ECON 302 or 304 (3)

FIN 300 (3)

MKT 300 (3)

LEGS 301 (3)

ECON 303 or 311 (3)

MGMT 300 and 360 (6)

OPRE 380 (3)

Electives (8)

**Fourth year** (30 hours)

Area of specialization (18) (selected from ACCT, BUSE, ECON, FIN, INS, MGMT, MIS, MKT, OPRE, and/or STAT with no more than 9 hours in any one area; select only courses that may be used to fulfill requirements in the area of specialization)

BA 405 (3)

Electives (9)

May not be combined with any other major for a double major.

## Health care administration

This is an area of undergraduate studies which will provide a variety of career opportunities in community hospitals, extended care facilities, state and federal agencies, voluntary health agencies and in various services found in health care organizations

**First year** (32 hours)

ENG 111 and 112 (3-6)

MATH 124 and 125 (8)

or

MATH 131 (5)

Communication elective (3)

PEG 100 (2)  
Other electives (13-19)

*Second year* (30 hours)  
ACCT 221 and 222 (6)  
STAT 211 and 212 (6)  
ECON 202 and 203 (6)  
MIS 200 (3)  
BA 203 (3)  
Electives (6)

*Third year* (30 hours)  
BA 325 (3)  
ECON 303 or 311 (3)  
FIN 300 (3)  
MKT 300 (3)  
LEGS 301 (3)  
ECON 302 or 304 (3)  
MGMT 300 and 360 (6)  
OPRE 380 (3)  
Electives (3)

*Fourth year* (30 hours)  
BA 405 and 429 (9)  
FIN 425 (3)  
LEGS 425 (3)  
Electives (15)

In addition to the major, the student must also pursue intensive studies (a minimum of 12 semester hours) in selected areas of business management such as staff planning and research, personnel administration, accountancy and controllership, and general supervision. (These courses are taken in the junior and senior years.)

The internship component of the program will provide students with practical experience and participation in the particular health care institutions and agencies in which they may be professionally interested.

## Human resource management

264 Business Administration Building,  
372-2946

This curriculum prepares a student to enter the field of human resources management. Foundation courses examine theories of organization, organizational behavior, individual and interpersonal behavior, organizational assessment and planning for change. A student may select one of four areas of concentration: personnel management, organization development, production/operations management or purchasing management. Area concentration courses in personnel management, organization development, production management and purchasing management prepare a student for entry-level positions within these fields.

Students are encouraged to enroll in the human resource management programs as freshmen. However, to be admitted officially to the program, the student must have completed the equivalent of 60 credit hours with an accumulative grade point average of 2.5 (C+) or better. Students not meeting this requirement may petition the Management Department for conditional acceptance to the program.

*First year*  
ENG 110/111 and 112 (6)  
MATH 124 and 125 (8) or MATH 131 (5)  
STAT 211 (3)  
Communications elective (3)  
PEG (2)  
Other electives (10-13)

*Second year*  
ACCT 221 and 222 (6)  
STAT 212 (3)  
ECON 202 and 203 (6)  
MIS 200 (3)  
BA 203 (3)  
Other electives (9)

*Third year*  
MGMT 300, 360, 461  
MKT 300 (3)  
FIN 300 (3)  
OPRE 380 (3)  
LEGS 301 (3)  
ECON 303 or 311 and 302 or 304 (6)  
Other electives (3)

*Fourth year*  
MGMT 463, 450 and 451 or 465 and 468 (9)  
BA 405 (3)  
Electives (18)\*

\*See your academic adviser for more detailed information about requirements.

## Industrial and labor relations

301 Business Administration Building,  
372-2646

This is an interdisciplinary program designed to prepare a student for work in industrial relations departments in corporations, government agencies and other organizations. This program will provide the student with a series of courses in the three areas of personnel, labor relations and the legal aspects of industrial relations.

*First year* (32 hours)  
ENG 111 and 112 (3-6)  
MATH 124 and 125, or MATH 131 (5-8)  
Communication elective (3)  
PEG 100 (2)  
MIS 200 (3)  
Other electives (10-16)

*Second year* (30 hours)  
ACCT 221 and 222 (6)  
ECON 202 and 203 (6)  
STAT 211 and 212 (6)  
BA 203 (3)  
Electives (9)

*Third year* (30 hours)  
ECON 302 or 304 (3)  
ECON 321 (3)  
LEGS 301 (3)  
MGMT 300 and 360 (6)  
OPRE 380 (3)  
MKT 300 (3)  
ECON 303 or 311 (3)  
MGMT 361 or 450 (3) (students who take MGMT 361 cannot take MGMT 450 and/or 451; human resource management majors cannot take MGMT 361)  
FIN 300 (3)

*Fourth year* (30 hours)  
Three courses chosen from the following, but no more than two courses in any one field: ECON 323, 422, 423, LEGS 414, 429, MGMT 365, 451, 461 (9)  
LEGS 419 (3)  
BA 405 (3)  
Electives (15)  
Electives (hours included above)  
Group I (3)  
Group III (6)  
Group V (6)  
Group IV (9)

## Insurance

201 Business Administration Building,  
372-2520

This curriculum is for the student wishing to prepare for a career as a corporate risk manager or in the fields of property liability insurance or life insurance.

*First year* (32 hours)  
ENG 110 or 111 and 112 (6-9)  
MATH 124 and 125 or MATH 131 (5-8)  
Communication elective (3)  
PEG (2)  
Electives (10-16)

*Second year* (30 hours)  
ACCT 221 and 222 (6)  
STAT 211 and 212 (6)  
ECON 202 and 203 (6)  
MIS 200 (3)  
BA 203 (3)  
Electives (6)

*Third year* (30 hours)  
ECON 303 or 311 (3)  
FIN 300 (3)\*  
MGMT 300 (3)\*  
LEGS 301 (3)  
ECON 302 or 304 (3)  
MKT 300 (3)\*  
INS 300 (3)  
INS 465 (3)  
Elective (6)

*Fourth year* (30 hours)  
OPRE 380 (3)\*  
MGMT 360 (3)\*  
LEGS 413 or 414 or 415 or FIN 330 (3)  
BA 405 (3)  
INS 466, 467, 469 and 470 (12)  
Other electives (6)

Electives (hours included above)  
Group I (6-9)  
Group III (11-14)  
Group IV (9)  
Group V (6)  
Non-business electives (4-10)

Suggested other electives include: ECON 321, 361, 460 and 461; FIN 342, 360, 433 and 436

\*Prerequisite for BA 405

## International business

309 Business Administration Building,  
372-0080

This is a curriculum designed to provide students with an international perspective. An international concentration will help students prepare for a career with a multinational company or other organizations concerned with international business activities.

*First year* (32 hours)  
ENG 111 and 112 (3-6)  
Communication elective (3)  
MATH 124 and 125, or MATH 131 (5-8)  
MIS 200 (3)  
PEG 100 (2)  
Other electives (10-16)

*Second year* (30 hours)  
ACCT 221 and 222 (6)  
BA 203 (3)  
ECON 202 and 203 (6)  
STAT 211 and 212 (6)  
Electives (9)

*Third year* (30 hours)  
ECON 302 or 304 (3)  
ECON 303 or 311 (3)  
ECON 351 (3)  
FIN 300 (3)  
LEGS 301 (3)  
MGMT 300 or 360 (3)  
MKT 300 (3)

OPRE 380 (3)

POLS 372

Elective (3)

Fourth year (30 hours)

BA 390 and 405 (6)

MGMT 300 or 360 (3)

Business electives (9) must be chosen from one of the following areas: ACCT, ECON, FIN, INS, MGMT, MIS, MKT, or a selection specifically approved by the student's adviser.

Or other electives (12)

Electives (hours included above)

Group I (3)

Group III (6)

Group IV (9)

Group V (6)

Among the balance of electives a foreign language is suggested.

## Management information systems

332 Business Administration Building,  
372-2767

This is a curriculum for the student who is interested in a position as a systems analyst or in a position requiring the application of computers to business problems. Emphasis is placed upon the use of the computer in a business environment. Provision is made through electives within the major for application of the computer to one of the functional areas of business such as accounting, economics, finance, management, marketing, operations research or statistics. Students may wish to consider management information systems as a dual major in conjunction with a functional field.

First year (32 hours)

ENG 111 and 112 (3-6)

MATH 124 and 125 (8)

or

MATH 131 (5)

PEG 100 (2)

Electives (16-22)

Second year (30 hours)

ACCT 221 and 222 (6)

ECON 202 and 203 (6)

STAT 211 and 212 (6)

MIS 200 (3)

CS 260 (3)

BA 203 (3)

Electives (3)

Third year (30 hours)

MGMT 300\* and 360\* (6)

OPRE 380 (3)\*

MKT 300 (3)\*

FIN 300 (3)\*

MIS 371 (3)

CS 360 (3)

Electives (9)

Fourth year (30 hours)

ECON 302 or 304 (3)

ECON 303 or 311 (3)

LEGS 301 (3)

BA 405 (3)

MIS 472 and 479 (6)

Major electives (6)\*\*\*

Other electives (6)

Electives (hours included above)

Electives should be chosen to meet the following general education group requirements:

Group I (3)

Group III (6)

Group IV (9)

Group V (6)

Suggested electives include: ENG 207; MATH 232, 332, 403 and 404; CS 305, 306 and 462; SPCH 102; ACCT 321, 322, 331, 332, 351 and 452; ECON 400, 401, 402, 424 and 459; FIN 430, 431, 450, 460 and 470; MKT 420 and 421; OPRE 480 and 485; all STAT courses; and/or all MGMT courses.

## Marketing

234 Business Administration Building,  
372-2041

The curriculum offered by the Department of Marketing is designed to permit the student to become acquainted with the broad field of marketing and to focus on one narrow sub-field as well.

Once the pre-professional core courses have all been taken, the BSBA student may then proceed directly to the professional core courses (one of which is MKT 300) and begin to pursue an area of specialization (a major). Students wishing to pursue studies in marketing can choose to concentrate in one of the following four narrow areas: advertising (see page 57), marketing research (see page 60), retailing (see page 62), or selling and sales management (see page 62).

No matter which of the four narrow areas is selected, all marketing students are required to take a common body of courses (see below). Additionally, each marketing student will need to take two more courses. Which particular two would typically be dictated by the specific area of concentration selected. A synopsis of the marketing program appears below:

Each BSBA student choosing marketing as a major *must* take the following four courses:

MKT 300

MKT 402

MKT 410

MKT 420

Each student *must* also select two additional courses drawn from the list below:

MKT 400

MKT 411

MKT 412

MKT 421

MKT 430

MKT 436

MKT 442

MKT 460

In addition to fulfilling these requirements, the student is encouraged to select electives which are consistent with and would contribute to attaining career objectives. Accordingly, each student should meet with a marketing adviser early in the freshman year and maintain contact throughout the remaining three years. For example, students concentrating in advertising might be encouraged to take courses in art, public relations, or social psychology; students concentrating in marketing research would be encouraged

to take STAT courses beyond the required 211 and 212; students concentrating in retailing might be encouraged to take courses in procurement or fashion merchandising; and students concentrating in selling and sales management might be encouraged to take courses in persuasive communication or procurement. And, of course, students could be advised to take additional selected course work in other areas of marketing.

Finally, students pursuing degrees other than the BSBA will be able to register for many marketing courses, but subject to two major constraints: 1) satisfactory completion of three "background" courses prior to taking MKT 300 (see course description for specific prerequisite information); and 2) space availability after enrolling BSBA students.

For further information, contact the Department of Marketing, 234 Business Administration Building, (419) 372-2041.

## Marketing research

234 Business Administration Building,  
372-2041

This is an area of concentration within the field of marketing which is designed for the student who is interested in preparing for research responsibilities in the marketing department of a manufacturer, ad agency, or research service organization. For other areas of concentration in marketing, see advertising, retailing or selling and sales management. Also, see marketing for an overview of all areas of concentration.

First year (32 hours)

ECON 202 (3)

ENG 111 and/or 112 (3-6)

MATH 124 and 125 (8) or MATH 131 (5)

Communication elective (3)

PEG 100 (2)

Other electives (10-16)

Second year (30 hours)

ACCT 221 and 222 (6)

BA 203 (3)

ECON 203 (3)

MIS 200 (3)

STAT 211 and 212 (6)

Electives (9)

Third year (30 hours)

ECON 302 or 304 (3)

ECON 303 or 311 (3)

FIN 300 (3)

MGMT 300 and 360 (6)

MKT 300, 402 and 410 (9)

OPRE 380 (3)

Electives (3)

Fourth year (30 hours)

BA 405 (3)

LEGS 301 (3)

MKT 420 and 421 (6)

MKT 400 or 411 or 412 or 430 or 442 or 460 (3)

Electives (15)

Electives (hours included above)

Electives should be chosen so as to minimally meet the following general education group requirements:

Group I (6-9)

Group III (11-14)

Group IV (9)

Group V (6)

\*must be taken before registering for BA 405

\*\*six hours will be selected from a specified functional area in business such as ACCT, ECON, FIN, MGMT, MKT or STAT in consultation with adviser. Courses in the selected area must form a cohesive group. A student is encouraged to use some of the electives to deepen understanding of the functional area selected.

## Operations research

344 Business Administration Building,  
372-2363

This is a curriculum for the student with a good mathematical background who wishes to prepare for a career in which mathematical and scientific techniques will be used to help solve business, social and other problems. This curriculum will also provide an excellent preparation for graduate study in operations research, management science and related disciplines.

*First year* (32 hours)

ENG 112 (110 or 111, if necessary) (3-6)

MIS 200 (3)

MATH 131 and 232 (10)

PEG 100 (2)

Communication elective (3)

Electives (8-11)

*Second year* (30 hours)

MATH 332 (3)

ACCT 221 and 222 (6)

STAT 211 and 212 (6)

ECON 202 and 203 (6)

BA 203 (3)

OPRE 380 (3)

Electives (3)

*Third year* (30 hours)

OPRE 480 and 485 (6)

ECON 303 or 311 (3)

LEGS 301 (3)

MGMT 300 and 360 (6)

MKT 300 (3)

FIN 300 (3)

ECON 302 or 304 (3)

STAT 315 (3)

*Fourth year* (30 hours)

OPRE 482 (3)

OPRE 487, or 488, or 489 (3)

BA 405 (3)

STAT 402, 404, 406, 410, 412, 414 (3)

Electives (18)

Electives should be chosen to meet the general education requirements of the college.

## Procurement and materials management

264 Business Administration Building,  
372-2946

This is a curriculum for the student who is interested in the procurement and materials management areas. The course of study includes an integrated approach to procurement, logistics and materials management functions and related activities.

Students are encouraged to enroll in the procurement and materials management program as freshmen. However, to be admitted officially to the program, the student must complete the equivalent of 60 credit hours or more with an accumulative grade point average of 2.5 (C+) or better. Students not meeting this requirement may petition the management department for conditional acceptance into the program.

*First year*

ENG 110/111 and 112 (6)

MATH 124 and 125 (8) or MATH 131 (5)

STAT 211 (3)

Communication elective (3)

PEG (2)

Other electives (10-13)

*Second year*

ACCT 221 and 222 (6)

STAT 212 (3)

ECON 202 and 203 (6)

MIS 200 (3)

BA 203 (3)

Other electives (9)

*Third year*

MGMT 300, 360, 330 (9)

MKT 300 (3)

FIN 300 (3)

OPRE 380 (3)

LEGS 301 (3)

ECON 303 or 311 and 302 or 304 (6)

Other electives (3)

*Fourth year*

MGMT 430, 439, 442, 445 (12)

BA 405 (3)

Electives (15)\*

\*See your academic adviser for more detailed information about requirements.

## Production and operations management

264 Business Administration Building,  
372-2946

This is a curriculum designed for the student preparing for a career in production management. This curriculum introduces the student to the concepts and methods used in the production and operations areas.

Students are encouraged to enroll in the production and operations management program as freshmen. However, to be admitted officially to the program, the student must complete the equivalent of 60 credit hours or more with an accumulative grade point average of 2.5 (C+) or better. Students not meeting this requirement may petition the management department for conditional acceptance into the program.

*First year* (32 hours)

ENG 110/111 and 112 (6)

MATH 124 and 125 (8) or MATH 131 (5)

STAT 211 (3)

Communication electives (3)

PEG (2)

Other electives (10-13)

*Second year* (30 hours)

ACCT 221 and 222 (6)

STAT 212 (3)

ECON 202 and 203 (6)

MIS 200 (3)

BA 203 (3)

Other electives (9)

*Third year* (30 hours)

MGMT 300, 360, 441 (9)

MKT 300 (3)

FIN 300 (3)

OPRE 380 (3)

LEGS 301 (3)

ECON 303 or 311 and 302 or 304 (6)

Other electives (3)

*Fourth year*

MGMT 442, 445, 449 (9)

BA 405 (3)

Electives (18)\*

\*See your academic adviser for more detailed information about requirements.

## Public and institutional administration

371 Business Administration Building,  
372-2747

This is an area of undergraduate study which is keyed to management and administration in the non-business setting. The program will relate to management career opportunities in a variety of public or non-profit institutions. In addition to the major, the student must pursue cross-disciplinary studies (12 hours) designed to provide the management specialist with vital understandings of public policy problems. The options from which a student may select are policy and administration, environmental administration, criminal justice, mass media and public opinion and urban studies.

*First year* (32 hours)

ENG (110/111), ENG 112 (3-6)

MATH 124 and 125 (8) or MATH 131 (5)

Communication elective (3)

PEG 100 (2)

Other electives (13-19)

*Second year* (30 hours)

ACCT 221 and 222 (6)

ECON 202 and 203 (6)

MIS 200 (3)

STAT 211 and 212 (6)

BA 203 (3)

Electives (including prerequisites for upper-level courses required in various public policies and affairs options) (6)

*Third year* (30 hours)

FIN 300 (3)

MKT 300 (3)

OPRE 380 (3)

ECON 302 or 304 (3)

POLS 221 (3)

LEGS 301 (3)

ECON 303 or 311 (3)

One from: ECON 331 or 332 or 436 (3)

MGMT 300, 360 (6)

*Fourth year* (30 hours)

MKT 404 (3)

MGMT 461 (3)

One from: ECON 331 or 332 or 436 (3)

BA 405 (3)

Public policy and affairs option (12)

Electives (6)

**Public policy and affairs** (12 hours -

included above). Each student will select from the following options to complete 12 hours in public policy and affairs:

*Policy and administration*

POLS 421 (3)

POLS 331, 332, 345, 422, 423, or 430 (3)

MGMT 361 or POLS 422 (3)

SOC 315, 316, 317, 413, 414, 415, 416, or 417 (3)

*Environmental administration*

ECON 435 (3)

ENVS 401 (3)

LEGS 431 (3)

GEOG 331, 442; POLS 335; SOC 415; or ENVS 402 (3)

*Criminal justice*

Any LEGS courses (6)

SOC 441 (3)

SOC 341, 352, 442, 443; or POLS 347 (3)

*Mass media and public opinion*

JOUR 103 (3)

RTVF 260 (3)

RTVF 460 or POLS 341 (3)

POLS 443 or JOUR 312, 340, 402, 433, or 435 (3)



**Urban studies**

ECON 459 and 462 (6)  
SOC 413 or POLS 430 (3)  
ECON 460 (3)

**Retailing**

234 Business Administration Building,  
372-2041

This is an area of concentration within the field of marketing which is designed for the student who is interested in pursuing a career in retailing. For other areas of concentration in marketing, see advertising, marketing research or selling and sales management. Also, see marketing for an overview of all areas of concentration.

**First year (32 hours)**

ECON 202 (3)  
ENG 111 and/or 112 (3-6)  
MATH 124 and 125 (8) or MATH 131 (5)  
Communication elective (3)  
PEG 100 (2)  
Other electives (10-16)

**Second year (30 hours)**

ACCT 221 and 222 (6)  
BA 203 (3)  
ECON 203 (3)  
MIS 200 (3)  
STAT 211 and 212 (6)  
Electives (9)

**Third year (30 hours)**

ECON 302 or 304 (3)  
ECON 303 or 311 (3)  
FIN 300 (3)  
MGMT 300 and 360 (6)  
MKT 300, 410 and 430 (9)  
OPRE 380 (3)  
Electives (3)

**Fourth year (30 hours)**

BA 405 (3)  
LEGS 301 (3)  
MKT 402, 420 and 436 (9)  
Electives (15)

**Electives (hours included above)**

Electives should be chosen so as to minimally meet the following general education group requirements.  
Group I (6-9)  
Group III (11-14)  
Group IV (9)  
Group V (6)

**Secretarial administration**

242 Business Administration Building,  
372-2901

This is a curriculum for a student desiring to prepare for administrative level secretarial responsibilities in business or industrial establishments, professional offices or government agencies. The student develops competency in secretarial skills, office procedures and management, word processing, data processing, communication and decision-making.

**First year (30 hours)**

ENG 111 and 112 (3-6)  
MATH 124 and 125 (8)  
or  
MATH 131 (5)  
Communication elective (3)  
PEG 100 (2)  
Electives (11-17)

**Second year (32 hours)**

MIS 200 (3)  
ACCT 221 and 222 (6)  
ECON 202 and 203 (6)

BA 203 (3)  
STAT 211 and 212 (6)  
BUSE 210 and 211 (5)  
Electives (3)

**Third year (30 hours)**

BUSE 301 and 311 (6)  
ECON 302 or 304 (3)  
FIN 300 (3)  
MKT 300 (3)  
LEG 301 (3)  
ECON 303 or 311 (3)  
MGMT 300 (3)  
OPRE 380 (3)  
Electives (3)

**Fourth year (30 hours)**

BUSE 314 (1)  
MGMT 360 (3)  
BUSE 335 and 401 (6)  
BA 405 (3)  
Electives (17)

**Selling and sales management**

234 Business Administration Building,  
372-2041

This is an area of concentration within the field of marketing which is designed for the student who is interested in pursuing a career in professional selling or in sales force management. For other areas of concentration in marketing, see advertising, marketing research or retailing. Also, see marketing for an overview of all areas of concentration.

**First year (32 hours)**

ECON 202 (3)  
ENG 111 and/or 112 (3-6)  
MATH 124 and 125 (8) or MATH 131 (5)  
Communication elective (3)  
PEG 100  
Other electives (10-16)

**Second year (30 hours)**

ACCT 221 and 222 (6)  
BA 203 (3)  
ECON 203 (3)  
MIS 200 (3)  
STAT 211 and 212 (6)  
Electives (9)

**Third year (30 hours)**

ECON 302 or 304 (3)  
ECON 303 or 311 (3)  
FIN 300 (3)  
MGMT 300 and 360 (6)  
MKT 300, 402 and 420 (9)  
OPRE 380 (3)  
Electives (3)

**Fourth year (30 hours)**

BA 405 (3)  
LEGS 301 (3)  
MKT 410 and 442 (6)  
MKT 400 or 411 or 412 or 421 or 430 or 460 (3)  
Electives (15)

**Electives (hours included above)**

Electives should be chosen so as to minimally meet the following general education group requirements:  
Group I (6-9)  
Group III (11-14)  
Group IV (9)  
Group V (6)

**Statistics**

344 Business Administration Building,  
372-2363

This curriculum is for the student who is interested in a career in statistical analysis and research in government or business. It

is an excellent preparation for graduate study in statistics or any discipline that utilizes a quantitative component.

**First year (32 hours)**

ENG 112 (110 or 111, if necessary) (3-6)  
PEG 100  
MIS 200 (3)  
Communication elective (3)  
MATH 131, 232 (10)  
Electives (8-11)

**Second year (30 hours)**

MATH 233 or 332 (3)  
ACCT 221 and 222 (6)  
ECON 202 and 203 (6)  
STAT 211 and 212 (6)  
BA 203 (3)  
Electives (6)

**Third year (30 hours)**

STAT 315 (3)  
STAT 402 (3)  
ECON 303 or 311 (3)  
MGMT 300 (3)  
ECON 302 or 304 (3)  
LEGS 301  
FIN 300 (3)  
MKT 300 (3)  
OPRE 380 (3)  
MGMT 360 (3)

**Fourth year (30 hours)**

BA 405 (3)  
STAT Electives (9\*\*\*)  
Electives (18)

Electives should be chosen to meet the general education requirements of the college.

\*\*\*The statistics electives must be chosen from 404, 406, 410, 412, 414 of which at least one must be 406 or 410.

Other recommended electives: MATH 441 and 442, ECON 402 and 404, OPRE 480, 482, 485, 487, 488 and 489. For further information, a student should consult an adviser.

**Other programs**

Two programs in statistics are offered by the College of Arts and Sciences.

**Bachelor of science in economics**

301 Business Administration Building,  
372-2646

This flexible program is especially suited for the student who wishes to combine a major in economics with concentrated study in one or more other disciplines. The program can easily be adapted to accommodate a major in economics and in a cognate field and hence it is ideally suited for those seeking a dual major in such disciplines as education, geography, sociology, political science, history, mathematics or psychology. Because economics is the science of business, students who wish to combine a major in economics with one in such functional fields of business as accounting, finance, marketing or management will find that the bachelor of science in economics also permits maximum freedom for the individual's study of business applications. This program is designed to provide students with a meaningful educational experience that stresses professional training in economics, but which recognizes the multi-dimensional demands placed upon practicing economists in a constantly changing society. It seeks, through an adaptable structure, to provide the student with the necessary training for employment in a wide

variety of occupations in business or government in which the skills of the economist are especially useful, or for continued study in professional schools or at the graduate level in economics or business.

A candidate for the bachelor of science in economics must complete the general requirements for graduation listed on page 7 and meet the group requirements listed below.

## General education requirements

### Group I: Communication

Each student is required to complete ENG 111 and 112. If a student is exempt from ENG 111, three additional hours of electives are required. ENG 110 may also be required, but only six hours of ENG may be counted toward graduation. A penalty is imposed if ENG 112 is not completed within the first 60 hours. See page 8. SPCH 102 is recommended but not required.

### Group II: Foreign language or cultural experience

No requirements; see Group V.

### Group III: Mathematics, science, and quantitative measurements

Each student is required to complete MATH 124 and MATH 125 or MATH 131, STAT 211 and 212; plus 6-9 hours from MATH (except 241, 242, 243, 244, or 245), CS, MIS, or the biological and physical sciences.

### Group IV: Social and behavioral sciences

Each student is required to complete ECON 202 and 203 plus 6-hours of social sciences outside ECON.

### Group V: Humanities

Each student is urged to complete PHIL 103 or 303. Eight hours of credit must be earned in the areas of ART, foreign languages, literature, music, PHIL and THEA. A list of acceptable courses is available in the Department of Economics office.

## Major and cognate concentration

Each student is required to complete a major in economics consisting of ECON 302, 303, 473, three hours of quantitative economics (ECON 400, 401 or 402) and 18 additional hours of ECON or approved, related courses. To complete the professional area of study a cognate concentration of 15 hours must be selected from the areas of business administration, arts and sciences or education, after consultation with an approval of the program adviser.

### Electives

The remainder of the academic program is completed with electives selected by the student in consultation with the program adviser. Depending upon interests and career objectives, a student may select courses from any area of the University in meeting this requirement.

### Other programs

A major in economics also is offered as part of the bachelor of science in business administration degree. In addition, programs in economics are offered by the College of Arts and Sciences and the College of Education.

## Associate in applied business

242 Business Administration Building,  
372-2901

A student interested in secretarial administration may prefer a shorter program than the four-year curriculum leading to the bachelor of science in business administration. Upon completion of this two-year executive secretarial program, the student receives the associate in applied business degree. If students should decide to continue their education after completing one or two years of this program, they may apply full credit for all courses satisfactorily completed toward the four-year degree program in secretarial administration.

A candidate for an associate in applied business degree must complete the general requirements listed on page 8 and complete, at Bowling Green immediately before graduation, at least 30 of the 62 hours required.

#### First year (32 hours)

ENG 111 and 112 (3-6)  
PEG 100 (2)  
BUSE 101, 111, 210, 211, 213, 215, 220 (19)\*  
Electives (5-8)

#### Second year (30 hours)

BUSE 240, 301, 311, 314, 321, 335, 401 (18)  
ACCT 220 or 221 (3)  
ECON 200 or 202 (3)  
LEGS 301 (3)  
BA 203 (3)

Suggested electives include ECON 203, HOEC 105, POLS 201, SPCH 102, humanities, MATH and sciences

\*A student with two semesters of high school typewriting and/or shorthand should enroll in BUSE 210 and/or BUSE 215. Those who choose to enroll in lower level courses will not receive credit toward graduation. A student who enrolls in the advanced courses in typewriting or shorthand must substitute electives for the beginning courses to complete a minimum of 62 hours for graduation.

### Other programs

A four-year program in secretarial administration is offered by the College of Business Administration leading to the bachelor of science in business administration degree. Other two-year degree programs are offered by Firelands College.

## Business Administration—Education

242 Business Administration Building,  
372-2901

A candidate who has met all the requirements for the degree of bachelor of science in business administration also may qualify for the degree of bachelor of science in

education and for an Ohio teaching certificate by completing a combined curriculum including the general and specific graduation requirements for each college.

The student who desires to pursue the combined program must:

1. Petition the board of appeals of the College of Education and the College of Business Administration to request registration in both colleges.

2. Complete 20 credit hours beyond the 122 hours required for graduation with a bachelor's degree in one college.

3. Complete the comprehensive major in business education or the distributive education major.

4. Complete PSYC 201, EDFI 302, and appropriate methods courses, as well as meet the group requirements in general education and participate in a semester of professional concentration which includes student teaching (BUSE 497).

A student interested in teaching business or distributive education in high school should consult with the Department of Business Education in planning the program.

# School of Journalism

103 University Hall, 372-2076

## The field of journalism

Modern journalism encompasses the mass communications media—newspapers, consumer magazines, business and industrial publications, technical periodicals, trade and professional publications, radio and television. As a diversified profession, journalism requires highly trained news reporters and editors for weeklies, dailies, the wire services, radio and television; specialists in photojournalism; public relations practitioners; editors for a wide range of magazines; writers in special fields such as science, business, economics, education, medicine, politics; and competent administrators to manage the editorial, advertising and business functions of publications and other mass communication services.

The student who plans a career in professional journalism must have a broad education based on the social sciences, humanities and natural sciences, understand the social, political and economic role of the mass media in a democratic society, be able to read intelligently the scholarly journalism and mass communication literature, have superb writing and thinking skills and be proficient in the professional techniques demanded by employers.

## Campus media

The BG News, the four-times weekly campus newspaper (106 University Hall, 372-2601), provides opportunities to gain experience in reporting, editing, advertising and management. In addition, a student has an opportunity to work on the Key, BGSU's yearbook (310 Student Services Building, 372-0086). Other publications include a university magazine, and The Obsidian and The Gavel, newspapers aimed at special interests. All these publications are under the supervision of a board of student publications.

Students interested in electronic journalism may participate in the Bowling Green Radio News Organization which supplies news, features and documentaries for the campus radio station WFAL and the University's FM station WBGU. They may also participate in the feature and documentary productions of the University's television station, WBGU-TV. Many also gain experience in

writing and production of other radio and television programs on these stations. Participation in student publications and in campus-related radio and television stations is not limited to journalism students.

## Training and facilities

The School of Journalism has laboratories for reporting, electronic editing, typesetting, photography and graphics of communication. Laboratory fees may be charged in some skills courses. A field practice requirement provides majors with professional training and experience on the staff of a daily or weekly newspaper, magazine, radio or television station, college news bureau or public relations department of a business or industry.

## Accreditation and professional associations

The School of Journalism has four of its programs accredited by the American Council on Education for Journalism: broadcast journalism, news-editorial, photojournalism and public relations. The school has undergraduate chapters of three national organizations dedicated to professional interest in the field: Sigma Delta Chi, a society of journalists open to students wishing a professional association; Women in Communications; and Public Relations Student Society of America, an affiliate of the national PRSA. The school also has a chapter of Kappa Tau Alpha, the national journalism honor society. Two local organizations, the Benjamin Franklin Society and the Radio TV News Association, are for students interested in magazine publishing and broadcast journalism, respectively. The school is a recipient of Reader's Digest Foundation funds which pay travel and other expenses for students researching stories away from campus that are subsequently published. Contacts with numerous professional organizations are maintained through individual faculty memberships. The School of Journalism serves as secretariat for the Great Lakes Interscholastic Press Association (GLIPA). The school also holds memberships in the American Association of Schools and Departments of Journalism and the American Society of Journalism School Administrators.

## Bachelor of science in journalism

A candidate for the degree of bachelor of science in journalism must meet the following requirements in addition to those listed on page 7.

1. Be proficient in typewriting skills by successfully completing a touch-typing course in high school or college.
2. Complete 47-52 hours of general requirements, including 9 credit hours of humanities courses, 24 hours of social science courses, and 9 hours of natural science courses. One natural science course must be in mathematics, statistics, or computer science.
3. Complete at least 31 credit hours in journalism, 10 hours of which are core journalism courses listed below (including at least one hour of JOUR 412) and the remaining 21 or more hours of which are in a specific sequence. No more than 34 hours in JOUR may be counted towards a Bachelor of Science in Journalism degree.
4. Earn a grade of C or better in all JOUR courses and maintain a 2.5 grade point average in JOUR courses. A student is allowed to repeat a JOUR course only once.
5. Complete a minor of at least 20 hours in a field other than journalism or complete an interdepartmental minor of 20 hours which clusters courses in two or more fields. Twelve of the 20 hours required in the minor field must be in 300- or 400-level courses. Minors should be declared in consultation with the student's adviser.

**Note:** Resources may limit class enrollment in upper-division JOUR courses, beginning with JOUR 300. Total hours earned and grade point average determine which journalism students are given preference. Students not majoring in journalism may find it difficult to gain admittance into many upper-division journalism courses, including JOUR 300.

## Specialization: five sequences

In addition to other requirements, each journalism major chooses one of five areas of specialization called sequences. The news-editorial sequence is generally associated with training for reporting and editing positions on weekly or daily newspapers and the wire services. Photojournalism

combines skills in writing and photography to convey a message in words and pictures. Public relations includes inter-group communications and relating the interests of business, industry, government, and public and private institutions to each other and to society. Broadcast journalism aims at competence in the electronic media of radio and television. Magazine journalism is concerned with the writing, editing and publishing of magazines and journals. A student interested in teaching should see the requirements for a journalism major or minor in the College of Education.

## Matriculation into Journalism sequences

Before being admitted into JOUR 300, a student MUST:

1. Complete at least 30 hours of course work consisting of general education requirements including ENG 112 and JOUR 103.
2. Earn an overall grade point average of 2.7 in the above-mentioned course work. The course work and GPA must be completed at the time admittance is sought into JOUR 300.
3. Earn a minimum grade of C in JOUR 103.
4. Pass a standardized test in English usage prepared by the School of Journalism.
5. If transferring into the BGSU journalism program, have a 2.5 grade point average in both journalism and overall course work. No more than 12 semester hours of course work in journalism will be accepted for transfer from junior colleges. Transfer students must pass a standardized test in English usage prepared by the School of Journalism. No more than 15 semester hours of course work in journalism will be accepted for transfer from any four-year institution.
6. Officially matriculate into the chosen sequence by declaring a major near the completion of JOUR 300. Students must have an overall GPA of 2.5 before their major will be approved by the School. To remain journalism majors, students must maintain a 2.5 grade point average in all journalism courses and a C in every required journalism course. An overall GPA of 2.25 must be maintained for graduation.

**NOTE:** Students seeking entry into JOUR 300 who are *not* pre-journalism majors must meet *all* of the above-listed requirements. Pre-journalism majors have priority admittance into this class.

## Core courses in journalism

(10 hours minimum)  
JOUR 103, 300 and 402 (9)  
JOUR 412 (1-3)

## Broadcast journalism

(23 hours)  
JOUR 306 or RTVF 264 or RTVF 464 (3)  
RTVF 263 (4)  
RTVF 262 (4)  
JOUR 312, 330, 331, 430 (12)

JOUR electives (up to 12 hours depending on whether a student wishes to consider RTVF required courses as part of major) Eight hours of RTVF courses may count in a SPCH minor.

## Magazine journalism

(21-24 hours)  
JOUR 303, 304, 404, 416 (12)  
JOUR electives (9-12)

## News-editorial

(21-24 hours)  
JOUR 302, 311, 312, 315 (12)  
JOUR electives (9-12)

## Photojournalism

(21-24 hours)  
JOUR 306, 307, 407 (9)  
JOUR 302 or 303 (3)  
JOUR electives (9-12)

## Public relations

(30-33 hours)  
JOUR 303, 340, 380, 440 (12)  
MKT 300 and 410 (6)  
MGMT 305 or 360 (3)  
(Two of the above three marketing and management courses may be applied to certain minors)  
Any change in program requirements or course prerequisites must have approval of the director of the School of Journalism.

## Minor

Students majoring in journalism must complete either a minor of at least 20 semester hours in a single field or discipline or an interdepartmental minor composed of selected and related courses in two or more fields other than journalism. Because it gives a student vocational flexibility, the interdepartmental minor is encouraged. At least 12 semester hours of the minor must be in 300- and 400-level courses. Choice of a minor should be made in consultation with the student's adviser after careful consideration of career goals. Students are also encouraged to select their non-journalism elective courses carefully to provide them with further training which will aid them in their careers.

## Other programs

A program in journalism also is available through the College of Education.





# College of Education

## Office of the Dean

Sandra Packard, Ed.D., dean, 444 Education Building, 372-0151

Ronald L. Russell, Ph.D., associate dean for academic programs, 444 Education Building, 372-0151

## Office of Field Experiences

Donald J. Chase, Ph.D., associate dean for administration, 444 Education Building, 372-0151

Cheryl Didham, M.Ed., coordinator of logistical services, 444 Education Building, 372-0151

## Office of Student Services

Larry D. Wills, Ph.D., assistant to the dean for student services and international studies, 442 Education Building, 372-0151

## Office of Program Advisement and Teacher Certification

Jane Wood, M.S., director, 365 Education Building, 372-0151

## Office of Advanced Programs

332 Education Building, 372-0151

## Office of Research and Evaluation

Fred L. Pigge, Ph.D., director of educational research, 330 Education Building, 372-0151

## Departments and Schools

Department of College Student Personnel, Gerald L. Saddlemyre, Ed.D., chair, 318 Education Building, 372-0151

Department of Educational Administration and Supervision, Leslie Chamberlin, Ed.D., chair, 513 Education Building, 372-0151

Department of Educational Curriculum and Instruction, Verlin W. Lee, Ph.D., chair, 529 Education Building, 372-0151

Department of Educational Foundations and Inquiry, Robert L. Reed, Ph.D., chair, 550 Education Building, 372-0151

Department of Home Economics, Doris Williams, Ph.D., acting chair, 206 Johnston Hall, 372-2026

Department of Library and Educational Media, Keith E. Doellinger, Ph.D., chair, 216 Hayes Hall, 372-2461

Department of Special Education, H. John van Duyne, Ed.D., chair, 451 Education Building, 372-0151

School of Health, Physical Education, and Recreation, Betty van der Smisssen, Re.D., director, 220 Memorial Hall, 372-2876

School of Technology, Jerry Streichler, Ph.D., director, 208 Technology Building, 372-2436

## Aims and purposes

The College of Education has two primary purposes: to provide course work that contributes to the general education program of the University and to provide programs that lead to careers in the fields of education, technology, sports management, recreation; child and family development, restaurant management-institutional food service and educational and human services personnel.

The college believes that quality career programs must include:

1. A program of general education designed to provide a broad and liberating educational experience for life-long learning.
2. Advanced study in one or more areas of specialized interest.
3. A program of on-campus and field-based professional experiences.

The College of Education maintains close working relationships with other colleges in the University, with elementary and secondary schools in northern Ohio for field-based experiences, with vocational schools and technical and branch colleges and with the State Department of Education for teacher certification.

The bachelor of science in education and the bachelor of science in technology are offered by the College of Education.

## College matriculation

Students accepted by Bowling Green State University may register in the College of Education when they have:

1. formally declared their intent to major within the College;
2. registered with the College Office of Program Advisement as a provisional member of a program or as an undecided major; and
3. conferred with an adviser assigned by the College of Education. Students transferring from another BGSU college also must have completed at least 12 semester hours of BGSU courses with a grade point average of 2.0 or higher.

## Program matriculation

Full membership in a College of Education program will become effective when a student has:

1. completed either SPCH 102 or ENG 112 with a grade of C or better;
2. completed at least two other general education courses required by the program;
3. attained an accumulative grade point average at BGSU of 2.0 or higher;
4. completed EDCI 202 or EDFI 202 (or a program alternative accepted by the college) with a grade of C or better. This fourth criterion applies only to students in teacher certification programs; and
5. met the additional specific requirements and application procedures that have been established by the particular program.

## Due process for academic decisions

The College of Education has established specific requirements for admission, program matriculation, student teaching eligibility, graduation and certification standards which are all available from the Program Advisement and Teacher Certification Office and the dean's office. Any questions regarding these requirements, standards or appeals related to other decisions may be directed to the assistant to the dean for student services.

Academic appeals may be initiated at either the dean's office or Program Advisement Office. Appeal forms are available in either office. Only written appeals are considered. A rationale for the appeal is required and documentation or other evidence may be attached. The written materials constituting the appeal are then reviewed by an appeals board, which serves in an advisory capacity to the dean. Examples of academic appeals include: appeals for reinstatement after being dropped for academic reasons, appeals regarding the denial of admission to either the college or a program, and ineligibility or denial for any field experience, including student teaching. The dean of the college reserves the right of final decision and may refer cases to an appeals board or an advisory committee for recommendations.

Appeals regarding the issuance of a grade are not referred to the college office. These appeals are processed through the instructor. Each department follows its own

procedures which are consistent with the recommendations of the Faculty Senate.

In cases related to academic honesty or other disciplinary action, a student is referred to the Student Code.

## Advising

The College of Education maintains a staff of program counselors and faculty advisers in the Office of Program Advisement and Teacher Certification, located in 365 Education Building. This staff alerts students to specific requirements, curriculum developments, certification procedures, career options, and academic appeals procedures.

As soon as possible, the student is assigned to an adviser within the major area of study. Faculty advisers' teaching and advising schedules change every semester. At the beginning of each semester, faculty advisers post their schedules on their office doors or adjacent bulletin boards. The responsibility of contacting an adviser rests with the student. The Program Advisement and Teacher Certification Office supplements the advising performed at the departmental level. Program revision, certification changes, and shifts in the demands of the marketplace support a close adviser/student relationship.

Students must file a checksheet by the end of the junior year with the Program Advisement and Teacher Certification Office. Once a checksheet is submitted, a deficiency list indicating all unfulfilled graduation requirements is mailed to the student.

## Certification

Upon successful completion of a Bowling Green teacher education program, the student receives institutional endorsement for one or more of the following Ohio teaching certificates.

### Elementary

A graduate completing the elementary education major is eligible for an elementary teaching certificate, valid for teaching grades one to eight. An elementary education major who completes EDFI 342 and EDCI 357 and who student teaches in either kindergarten, first, second, or third grade is eligible for a kindergarten elementary certificate, valid for teaching grades kindergarten to eight.

### High school

A graduate completing a secondary certificate major and/or minor is eligible for a high school teaching certificate, valid for teaching the major and/or minor subject area in grades seven through twelve. A candidate interested in junior and senior high school teaching is strongly recommended to select a teaching minor in addition to a teaching major.

### Special

A graduate completing one of the following major programs—art, educational media, foreign language, health, industrial arts, music, or physical education—is eligible for

a special teaching certificate, valid for teaching the subject from kindergarten through the twelfth grade.

### Special exceptional children

A graduate completing one of the following majors—deaf and hard of hearing, educable mentally retarded, learning disabilities and behavior disorders; moderately, severely, or profoundly handicapped; or speech and hearing therapy—is eligible for a special exceptional children teaching certificate valid for teaching the major areas in all grades, kindergarten through twelve.

### Vocational

A graduate completing either a distributive education or home economics major or a graduate completing the OWE/OWA certification pattern is eligible for a vocational teaching certificate.

### Dual

Graduates can qualify for more than one teaching certificate by completing a double major or minor. Dual certification in elementary education and high school education can be obtained by the completion of the elementary major and a certifiable secondary major or minor, including the corresponding secondary methods course. Other types of dual certification are possible; additional information is available in the Program Advisement and Teacher Certification Office, 365 Education Building.

### Application for certification

Each teacher education candidate must complete an application for certification; these applications are available from the student teaching supervisors or the Program Advisement and Teacher Certification Office, 365 Education Building. Completed applications should be returned to the Program Advisement and Teacher Certification Office by the end of the second week of the graduation semester. Ohio teaching certificates are not transferable to other states, but Ohio participates in the Interstate Agreement of Qualification of Education Personnel and has entered into an implementation contract with 28 states.

Teachers who already hold certificates but who wish to qualify for another type of certificate may do so by following specified retraining programs; outlines of these programs can be obtained in the Program Advisement and Teacher Certification Office, 365 Education Building.

## Intercollege curricula

A candidate for a degree from the College of Education who desires a second degree from the College of Health and Community Services, College of Arts and Sciences, or College of Business Administration may take work in that college after graduation to complete degree requirements or qualify for the dual degree program prior to graduation. Students desiring a dual degree must:

1. secure permission of the deans of both colleges before the end of the junior year.
2. complete the requirements of both colleges for the degree sought.

3. complete at least 20 hours of credit beyond the hours required for a single degree.

## Bachelor of science in education

A candidate for the degree of bachelor of science in education must complete the following requirements for graduation in addition to those listed on page 7.

1. Meet all requirements for a major including prerequisites, laboratory experiences, personal fitness, and other regulations;
2. Complete 42 semester hours of credit from the areas identified under General Education Requirements.

## General education requirements

The College of Education requires all candidates for baccalaureate degrees to demonstrate, through the satisfactory completion of 42 semester hours of general education credit, that they have: (A) developed skills in listening, speaking, reading, writing, mathematics, critical thinking and conflict resolution; (B) achieved an understanding of literature, the fine arts and other humanities; of the natural sciences and technology, of the social and behavioral sciences and of cultures other than one's own; and (C) experienced personal development through integration of physical development with the understanding of self and relationships to others. It is expected that the final outcome of the student's general education will be the ability to integrate the skills developed with the understandings achieved and that this integration will be incorporated in the student's personal development.

### Group I: Communication

Each student must complete ENG 112 or equivalent and SPCH 102. Students have demonstrated acceptable performance in English skills if they have received a satisfactory grade in ENG 112. A penalty is imposed if ENG 112 is not completed before the junior year. See page 8. Minimum total: six hours.

### Group II: Foreign language or cultural experience

See Group V.

### Group III: Mathematics and science

Each student must complete 14 hours of credit selected from the areas of ASTR, BIOL, CHEM, CS, GEOL, MATH, PHYS or GEOG 125, 126, 127, 212, 213, 404, 405, 427, 433, 460, 464, 471. This course work must be in a science and mathematics or in at least two sciences. Minimum total: 14 hours.

### Group IV: Social sciences

Each student must complete nine hours of credit selected from the areas of ECON, GEOG, HIST, LEGS, POLS, PSYC and SOC.

The course work must be in at least two social sciences and must include PSYC 201. Minimum total: nine hours.

### Group V: Literature, fine and applied arts

Each student must complete a literature course and six hours of credit in one or more of the following areas: ART, BUSE, crafts, THEA and RTVF, foreign language, HOEC, VCT, L&EM, modern dance, music and PHIL. The literature requirement can be fulfilled by taking any literature course offered by the English department (except ENG 342) or a literature course in translation offered by a foreign language department. Minimum total: nine hours.

### Total general education requirements

Some of the programs of study leading to the Bachelor of Science in Education may exceed the 42 hours required in general education.

### Professional requirements

In addition to general education requirements, all students pursuing programs leading to teaching certification must complete a sequence of courses in professional education. This course work is integrated with directed observation and participation in school settings (field experiences) and is accompanied by on-campus clinical experiences. Professional education course work required in each of the teacher education program areas is shown below.

**Business education:** BUSE 497; EDCI 202 or EDFI 202; EDSE 311, EDCI 360; EDFI 302, 402, and 408; EDAS 409; and BUSE 314, 352, 354, 356 (comprehensive with shorthand only), 358 and 468

**Educable mentally retarded:** EDSE 492; EDCI 202 or EDFI 202; L&EM 301; EDCI 355; EDFI 302; EDFI 402 or EDFI 429, and 408; EDAS 409; ART 482; PEP 433; and EDSE 431, 433, 437, 442, 443, 447, 448, 451, 453, 456, and 457.

**Elementary education:** EDCI 492; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDFI 302, 402, and 408; EDAS 409; MUED 249 and 349; PEP 342; ART 343; and EDCI 351, 352, 353, 355, and 356.

**Foreign languages:** EDCI 497; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDFI 302, 402, and 408; EDAS 409; and EDCI 373 and EDCI 383.

**Health:** HED 497; L&EM 301; EDCI 202 or EDFI 202; EDSE 311, EDCI 360; EDFI 202, 402, and 408; EDAS 409; and HED 209, 230, 313, 338, 340, 348, 393, 409 and 481.

**Hearing impaired:** EDSE 497; EDCI 202 or EDFI 202; L&EM 301; EDCI 355; EDFI 302, 402, or 429, and 408; EDAS 409; EDSE 431, 442, 451, 457, 461, 462, 463, 464, and 465; CDIS 434 and 436.

**Home economics:** HOEC 497; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDCI 360; EDFI 302, 402, 408; EDAS 409; and HOEC 250, 352, 353, and 354.

**Industrial arts:** IE 497; EDCI 202 or EDFI 202; VCT 203; EDFI 302, 402, and 408; EDAS 409; and IE 252, 352, 447, 449, and 462.

**Learning and/or behavior disorders:** EDSE 497; EDCI 202 or EDFI 202; EDFI 302, 402 or 429, 408; L&EM 301; EDCI 355; EDAS 409 and 492; ART 482; PEP 433; and EDSE 431, 433, 437, 442, 443, 447, 448, 451, 456, and 457.

**Media specialist/librarian:** L&EM 497, EDCI 202 or EDFI 202; EDSE 311; EDCI 360; EDFI 302, 402, and 408; EDAS 409; and LEM 203, 301, 403, 407, 408, 411, 428, 430 and 450.

**Moderate, severe, and profoundly handicapped:** EDSE 492; EDCI 202 or EDFI 202; L&EM 301; EDCI 355; EDFI 302, 402 or 429 and 408; EDAS 409; ART 482; PEP 433; and EDSE 431, 433, 437, 440, 442, 443, 445, 451, 456, 457, and 470.

**Music education:** MUED 331; EDFI 302, 402, and 408; EDAS 409; MUED 240 and 340. Music education is a major within the College of Musical Arts. See page 101 for content and general education requirements.

**Physical education, plan I:** PEP 497; PEP 233; L&EM 301 or VCT 203; PEP 433 or EDSE 311; EDFI 302 and 408; PEP 402 or EDFI 402; EDAS 409; HED Elective; and PEP 238, 241, 332, 337, 428, and 438.

**Physical education, plan II:** PEP 497; PEP 247 or EDCI 202 or EDFI 202; PEP 402 or EDFI 402; HED Elective; EDFI 302 and 408; EDAS 409; LEM 301; PEP 433 or EDSE 311; and PEP 241, 256, 332, 356, 362 and 412.

**Physical education, plan III:** PEP 497; PEP 247 or EDCI 202 or EDFI 202; EDFI 302 and 408; EDAS 409; L&EM 301; HED 348 and 409; PEP 433 or EDSE 311; PEP 402 or EDFI 402; and PEP 256, 362, 392, and 412.

**Secondary:** EDCI 497; EDCI 202 or EDFI 202; L&EM 301; EDFI 302, 402, and 408; EDSE 311; EDAS 409; EDCI 360, 370, and one of the following: EDCI 371, 372, 374, 375, or 378.

**Speech and hearing therapy:** CDIS 497; EDCI 202 or EDFI 202; EDFI 302, 402, and 408; EDAS 409; EDCI 355; L&EM 301; EDSE 431, 433, and 451; and CDIS 223, 224, 301, 311, 321, 331, 341, 351, 361, 401, 411, 421, 431, 434, 461, and 481.

**Visual arts:** ART 497; EDCI 202 or EDFI 202; L&EM 301 or VCT 203; EDSE 311; EDFI 302, 402, and 408; EDAS 409; and ART 252, 352, 353, 495, and one of the following: ART 482, 483, or 487.

### Student teaching

Student teaching is the culminating field experience in the student's teacher education program. During student teaching, the student devotes full-time to teaching and to participation in the school's activities under the guidance of a cooperating teacher and campus field supervisor. The student is assigned to one situation and progresses from observation and directed participation to responsibility for full-time teaching. The student is guided in studies of child development, specific teaching skills, and the planning of a balanced program of a learning situation, and is expected to participate in the curricular, extracurricular and professional activities of the school.

A student in physical education, music or art ordinarily teaches in both elementary and secondary schools. Programs for the student in public school music are individually planned to give proper balance or concentration in vocal or instrumental experience.

The college attempts to place student teachers in the best available stations. While student preferences are taken into consideration, they cannot be met in all cases.

Stations must have both college and program approval. Students are responsible for their own transportation to student teaching stations.

### Student teaching eligibility requirements

To be eligible for assignment in student teaching, the student must:

1. Complete 90 hours of college credit, including
  - a) ENG 112;
  - b) SPCH 102;
  - c) PSYC 201;
  - d) EDFI 302;
  - e) Methods course(s) required for the program.
2. Complete all specific requirements for student teaching eligibility listed on the official program check sheet available from the Program Advisement Office.
3. File an application for student teaching in the Field Experiences Office, 444 Education Building, not later than the first week of the semester preceding anticipated student teaching.
4. Earn an accumulative grade point average of 2.20 with no incompletes at the end of the semester prior to student teaching.

5. Be fully accepted in a College of Education Teacher Certification Program either as an undergraduate student or baccalaureate degree holder (the school nurse program is an exception).

6. Have a satisfactory performance record in course related field and clinical experiences.

Student teaching may be deferred or denied by the dean upon the recommendation of the Field-Experience Advisory Committee of the College of Education.

### International teacher education programs

The College of Education offers interested education majors an opportunity to complete the educational component of student teaching in an international setting.

Selected individuals will be placed in American bi-national schools in Bogota, Colombia; Campinas, Brazil; Toronto, Ontario; or Montreal, Quebec, for a 10-week student teaching program. Most students are housed by host national families for an increased intercultural experience. Student teaching abroad enables individuals to understand the educational, cultural and political effect another country has on the United States and the world.

Interested students should direct inquiries and applications to the Director of International Teacher Education Programs, 442 Education Building, Bowling Green State University, Bowling Green, Ohio 43403.

### Content area requirements

Content specializations as described within a major, minor or other concentration are indicated in the respective curriculum outlines as specified by a program area, department or school. These specializations

are subject to college approval and, in the case of teacher certification, fields are based upon the Revised Code of Ohio Statutes and Regulations of the State of Ohio Department of Education.

The content specializations follow alphabetically within the catalog. Offerings within the School of Health, Physical Education, and Recreation; the School of Technology; and the Department of Home Economics are grouped by unit with selective cross-referencing.

Check sheets and supplementary advising materials are available in the Program Advisement and Teacher Certification Office.

Any student completing a teaching major from the following fields of study must also complete a designated professional education sequence. Check page 69 for the specified professional education courses.

## Aerospace education

214 Technology Building, 372-2436

**Minor** (does not lead to certification) (21 hours)

TECH 191, ET 291, AERT 342 (9)  
Select 12 hours from GEOG 213; TECH 289, 389, 391; AERT 343, 344, 345, 401, 490; IE 497 (12)

## American studies

214 University Hall, 372-0110

**Major (Option I)** (meets high school certification in English, history, geography, political science or sociology, depending upon the student's area of concentration) (50-60 hours)

AMST 200 and 400 (6)  
HIST 205 and 206 (6)  
ENG 266 and 267 (6)  
Select nine hours: ART 441, ART 442, PHIL 315, PHIL 415 (9)

Select three hours: POLS 201, 301, 304, 331, 341, 345, 346, 347, 416, 417, 418, 421, 422, 430, 440 (3)

Select one: SOC 101; GEOG 225, 230, 350 (3)  
Select one of these if SOC 101 selected above: SOC 231, 311, 315, 316, 418 (3)

Select one of these if GEOG 225, 230 or 350 selected above: GEOG 325, 326, 333, 335, 337, 351, 402, 425, 426, 436, 451 (3)

Electives in specialization, chosen in consultation with adviser and certification requirements (14-24)

**Major (Option II)** (meets high school certification in history and English) (84 hours)

AMST 200, 400 (6)  
HIST 205 and 206 (6)  
SOC 101 (3)  
ENG 266 and 267 (6)  
Select 9 hours from this group: PHIL 415, PHIL 315, ART 441, ART 442 (9)

Select 3 hours from this group: POLS 201, 301, 304, 331, 341, 345, 346, 347, 416, 417, 418, 421, 422, 430, 440 (3)

Select 3 hours: SOC 231, 311, 315, 316, 418 (3)  
History and English concentration, chosen in consultation with adviser and certification requirements (24)

### Other programs

Programs in American Studies also are available through the College of Arts and Sciences.

## Art

116B Fine Arts Building, 372-2786

**Major** (meets special certification, kindergarten-twelfth grade) (50 hours)  
ART 102, 103, 112, 145, 146, 205 (18)

ART 211 or 212 or 213 (3)  
Select two of these: ART 261, 263, 267, 320 or 321; 265 or 365 (6)

Select two of these: ART 325, 371 or 373; 277 (6)  
ART history elective (3)  
ART electives (8)  
ART sequence study in one area (6)

**Minor (meets high school certification)** (30 hours)

ART 102, 103, 112, 145, 146, 205, 353 (21); ART 211 or 212 or 213 (3); select one of these—ART 261, 263, 267, 320, 321, 265, 365 (3); select one of these—ART 325, 371, 373, 277 (3).

**Minor (elementary majors only)** (30 hours)

ART 102, 103, 112, 145, 146, 205, 352 (21); ART 211 or 212 or 213 (3); select one of these—ART 261, 263, 267, 320, 321, 265, 365 (3); select one of these—ART 325, 371, 373, 277 (3).

**Minor (does not lead to certification)** (24 hours)

ART 102, 103, 112, 145, 146, 205 (18); select one of these—ART 261, 263, 267, 320, 321, 265, 365 (3); select one of these—ART 211, 212, 213, 325, 371, 373, 277 (3).

### Other programs

Programs in art also are offered by the College of Arts and Sciences and its School of Art.

## Astronomy

529 Education Building, 372-0151

**Endorsement** (leads to a strong background in astronomy, but does not lead to teacher certification) (8-9 hours)

ASTR 201 (3)  
Two of these courses—ASTR 212, 305, 307, 403, 321 (5-6)

### Other programs

Programs in astronomy also are available through the College of Arts and Sciences.

## Athletic coaching

See School of Health, Physical Education, and Recreation, page 82.

## Athletic training

See School of Health, Physical Education, and Recreation, page 82.

## Biological sciences

529 Education Building, 372-0151

**Major** (meets high school certification) (33 hours)

BIOL 204, 205, 301, 350, 352 (16)  
CHEM 116 or 308/309 (4)  
Thirteen hours of electives in BIOL which must include one of these—BIOL 321, 354, 412, 420, 422, 425 AND one of these—BIOL 407, 411, 417, 438, 439, 443 (13)

**Minor** (meets high school certification) (23 hours)

BIOL 204, 205, 301, 350, 352 (16)  
BIOL elective (3)  
CHEM 115 (4)

### Other programs

Programs in biological sciences are also offered through the College of Arts and Sciences.

## Business education

242 Business Administration Building, 372-2901

**Major** — Comprehensive with shorthand (meets high school certification in comprehensive business education and shorthand) (43 hours)

*First year*  
BUSE 101 (3)

*Second year*  
ACCT 221 (3)  
ECON 202 (3)  
ACCT 222 or ECON 203 or LEGS 302 (3)  
BA 203 (3)  
BUSE 210\*, 211, 240 (8)

*Third year*  
BUSE 301\*, 311, 321 (8)  
LEGS 301 (3)  
MKT 300 (3)

*Fourth year*  
BUSE 335 and 401 (6)

**Major** — comprehensive without shorthand (meets high school certification in comprehensive business education) (40 hours)

*First year*  
BUSE 101 (3)

*Second year*  
ACCT 221 (3)  
ECON 202 (3)  
BUSE 210\*, 211, 240 (8)  
ACCT 222 or ECON 203 or LEGS 302 (3)  
BA 203 (3)

*Third year*  
BUSE 301, 321 (5)  
LEGS 301 (3)  
MKT 300 (3)

*Fourth year*  
BUSE 335 (3)  
MKT 340 or 410 or 430 (3)

**Minor** — bookkeeping and basic business (meets high school certification in bookkeeping and basic business) (24 hours)

ACCT 221 and 222 (6)  
BUSE 240, 321, 352, 354 (9)  
ECON 202 and 203 (6)

Elective in ACCT; LEGS or economic geography (3)

**Minor** — sales communication (meets high school certification in sales communication) (22 hours)

*Second year*  
BUSE 240 (3)  
BA 203 (3)

*Third year*  
BUSE 321, 364 (5)  
MKT 300 and 340 (6)

*Fourth year*  
MKT 430 (3)  
Approved elective in advertising, accounting, office procedures, office machines, typing, economic geography or merchandising (2)

**Minor** — stenography and typing (meets high school certification in stenography and typing) (22 hours)

*Second year*  
BUSE 210\*, 211 (5)  
BA 203 (3)

*Third year*  
BUSE 301\*, 311, 356, 358 (8)

\*A student with insufficient background in typewriting or shorthand must take additional courses.

Fourth year  
 BUSE 401 (3)  
 BUSE 335 or 455 (3)

## Chemistry

529 Education Building, 372-0151

**Major** (meets high school certification)  
 (28-29 hours)

*First year*

CHEM 125, 126 (10) or CHEM 135, 136 (10)

*Second year*

CHEM 201 (for those having taken CHEM 125, 126) (3)

*Third and fourth years*

CHEM 341 and 342 (10)

CHEM 352 (3) or CHEM 405 and 407 (6)

CHEM electives selected from CHEM 321, 442, 413, 463, 308/309, 406, 408, 445 (0-5)

**Minor** (meets high school certification)  
 (20 hours)

*First year*

CHEM 125, 126 (10) or CHEM 135, 136 (10)

*Second, third and fourth years*

CHEM 201 (for those having taken CHEM 125, 126) (3)

CHEM 306 (4) or CHEM 341, 342 (10)

CHEM electives at 300-400 level (0-6)

**Other programs**

Programs in chemistry also are offered through the College of Arts and Sciences.

## Child and family development

See Department of Home Economics, page 77.

## Communications

365 Education Building, 372-0151

**Major** (meets high school certification in communications comprehensive) (72 hours)

ENG 380 (4)

IPCO 306 (3)

Select one: ENG 201 or 205 or 206 (2-4)

Select one: POPC 165, AMST 200, ENG 208 (3)

Select one: VCT 203 or 208 (3)

Each student must complete *Option I* or *Option II*.

*Option I*

THEA 202, 241 (6)

IPCO 203, 205 (6)

CDIS 23 (3)

SPCH 351 (3)

ENG 301, 266, 267, 264 (12)

JOUR 103, 300 (6)

Select one: RTVF 260 or 466 (3)

Select two: IPCO 304, 305, 204, 303 (6)

Select one: RTVF 262, 263, 264 (3)

Select one: THEA 141, 341, 344, 348 (3)

Select one: ENG 320, 323, 325 (3)

Select one: ENG 481, 482, 483 (3)

*Option II*

THEA 202, 241 (6)

IPCO 203, 205 (6)

RTVF 260, 364 (6)

CDIS 223 (3)

ENG 301, 266, 267, 264 (12)

JOUR 103, 300 (6)

Select one: ENG 481, 482, 483 (3)

Select two: ENG 320, 323, 325, 330, 333 (6)

Select one: ENG 265, 322, 415, 416 (3)

Select two: ENG 290, 342, 488, 272, 343 (6)

## Computer science

365 Education Building, 372-0151

**Major** (meets high school certification)  
 (30 hours)

CS 101 or 103 (3)

CS 201, 202, 205, 305, 306, 307 (18)

CS elective\* (3)

CS electives\* at 400-level (6)

\*The following CS courses may *not* be applied to the major requirement: CS 100, 180, 260, 390, 490.

**Minor** (meets high school certification)  
 (21 hours)

CS 101 or 103 (3)

CS 201, 205 (3)

CS electives\* (12)

\*The following CS courses may *not* be applied to the minor requirement: CS 100, 180, 260, 390, 490.

**Other programs**

Programs in computer science also are offered through the College of Arts and Sciences.

## Dietetics

See Department of Home Economics, page 77.

## Distributive education

284 Business Administration Building, 372-0051

**Major** (meets vocational certification in distributive education) (33-36 hours)

BUSE 101, 240, 364, 461, 462 (13)

BUSE 314 (1-2)

BUSE 491 (1-3)

BUSE 463 or 465 (3)

ECON 200 or 202 (3)

MKT 300, 340, 410, 430 (12)

**Minor** (meets vocational certification in distributive education) (19 hours)

BUSE 364, 461, 462 (7)

BUSE 463 or BUSE 465 (3)

MKT 300, 340 (6)

MKT 410 or 430 or 436 (3)

**Vocational work experience**

See work experience.

## Driver education

See School of Health, Physical Education, and Recreation, page 79.

## Early childhood education

See Department of Home Economics, page 76.

## Earth science

529 Education Building, 372-0151

**Major** (meets high school certification in earth science) (32 hours)

*First year*

GEOL 104, 105 (8)

*Second and third years*

GEOG 125, 213 (6)

GEOL 304, 305, 306 (12)

*Fourth year*

GEOL 493 (6)

**Minor** (meets high school certification in earth science) (22-23 hours)

GEOL 104, 105, 304 (12)

GEOL 305 or 306 (4-5)

GEOG 125, 213 (6)

## Economics

442 Education Building, 372-0151

**Major** (meets high school certification in economics) (30 hours)

*First year*

ECON 100 (3)

*Second year*

ECON 202 (3)

ECON 203 or 200 (3)

ECON 400 (except for students who have completed MATH 124 or 131) (3)

*Third and fourth years*

ECON 302, 303, and 311 (9)

Select two: ECON 351, 454, 472

Electives in ECON (3-6) (Students who plan to do graduate work in ECON should take ECON 401)

**Minor** (meets high school certification)  
 (21 hours)

*First year*

ECON 100 (3)

*Second year*

ECON 202 (3)

ECON 203 or 200 (3)

*Third and fourth years*

ECON 302 or 304, 311 (6)

Select two: ECON 351, 454, 472 (6)

**Other programs**

Programs in economics also are offered through the College of Arts and Sciences and the College of Business Administration.

## Educable mentally retarded

451 Education Building, 372-0151

**Major** (meets special exceptional children kindergarten-twelfth grade certification; see special curriculum below)

*First year*

ART 101 (3)

ENG 112 (3)

PEG 100 (2)

HIST 151 or 152 (3)

PSYC 201 (4)

BIOL 104 (4)

GEOG 121 and 122 (4)

SPCH 102 (3)

EDCI 202 or EDFI 202 (2)

Physical science elective (2-3)

*Second year* (33 hours)

HIST 205 and 206 (6)

EDFI 302 (3)

ENG literature (3)

L&EM 301 (2)

MATH 241 and 242 (6)

EDSE 431, 451, and 433 (8)

MUED 249 (2)

Physical science elective (3)

*Third year* (30 hours)

PEP 433 (3)

ENG 342 (3)

CDIS 451 or 471 (3-4)

EDCI 355 (3)

ART 482 (3)

EDSE 447 and 448 (6)

MUED 349 (2)

Social science elective (1-3):

EDSE 437 and 442 (6)

*Fourth year* (31 hours)

EDFI 408 (2)

EDAS 409 (3)

EDSE 492 (10/8)

HED 346 (3)

EDFI 402 or 429 (3)

EDSE 456, 457, 443, 453 (10)



## Elementary education

365 Education Building, 372-0151

**Major** (meets elementary education, grades 1-8)

*First year* (30 hours)

ENG 112 (3)

PEG 100 (2)

GEOG 121 and 122 (4)

SPCH 102 (3)

BIOL 101 (3)

EDCI 202 or EDFI 202 (2)

HIST 151 or 152 (3)

PHYS 104 (2)

CHEM 104 (2)

GEOG 101 (3)

Electives or minor (3)

*Second year* (30 hours)

MATH 241 and 242 (6)

MUED 249 (2)

ENG literature elective (3)

HIST 205 and 206 (6)

PSYC 201 (4)

HED 346 (3)

ART 101 (3)

Electives or minor (3)

*Third year* (30 hours)

ART 343 (2)

EDCI 351, 352, 353, 355 and 356 (15)

PEP 342 (3)

ENG 342 (3)

MUED 349 (2)

L&EM 301 (2)

EDFI 302 (3)

*Fourth year* (32 hours)

EDCI 492 (10)

EDAS 409 (3) with student teaching

EDFI 402 and 408 (5)

EDSE 311 (2) with student teaching

CDIS 471 (3)

Electives or minor (9)

Completion of EDFI 342, EDCI 357 and student teaching in a kindergarten through third grade setting will meet certification for grades kindergarten through eight.

## English

216G University Hall, 372-2576

**Major** (meets high school certification) (38 hours)

*Group I*

ENG 301, 343, 380, 201 (17)

Select one: ENG 207 or 251 (3)

Select one: ENG 481, 482, 483 (3)

*Group II*

Select *one each* from A and B (6)

A. ENG 264, 402, 403, 404, 411 (3)

B. ENG 266, 267, 417, 418, 265 (3)

*Group III*

Select *one each* from two of these sub-groups (6)

A. ENG 325, 335, 401, 406, 410 (3)

B. ENG 322, 323, 333, 415, 416, 435 (3)

C. ENG 320, 330, 408, 417 (may not be used if counted in Group II/B) (3)

*Group IV*

Select *one course* from the following OR from the courses listed in Group II and Group III if not being used to satisfy those group requirements (3)

ENG 261, 262, 306, 400, 419, 420, 423, 430, 456

**Minor** (meets high school certification) (32 hours)

*Group I*

ENG 112, 201, 301, 380 (14)

EDCI 420 (3)

Select one: ENG 207 or 251 (3)

Select one: ENG 381, 481, 482 or 483 (3)

*Group II*

Choose *one* from either A or B (3)

A. ENG 264, 402, 403, 404, 411

B. ENG 266, 267, 417, 418, 265

*Group III*

Select *one each* from two of these sub-groups (6)

A. ENG 325, 335, 401, 406, 410

B. ENG 322, 323, 333, 415, 416, 435

C. ENG 320, 330, 408, 417 (may not be used if counted in Group II/B)

## Environmental education

550 Education Building, 372-0151

124 Hayes Hall, 372-0207

**Major** (three separate tracks are individually designed to supplement existing certifiable majors, including elementary education, most science majors, and recreation majors)

**Minor** (does not lead to certification)

(21-22 hours)

BIOL 101 (3)

Select two of these—EDFI 415, 490, 416 (6)

Select four of these—BIOL 104, GEOG 331, GEOG 442, HIST 338, ECON 435, POLS 335, POLS 336, PHIL 332, ENVR 421 (12-13)

## Environmental science

529 Education Building, 372-0151

**Major** (meets high school certification in biological sciences, general science and health) (60-61 hours)

BIOL 101, 204, 205, 301, 321, 322, 332, 490 (26)

HED 209, 313, 340 (9)

Math (3)

PHYS 100 (3)

GEOG 322 (3)

CS elective or statistics elective (3-4)

CHEM 115, 116 (8)

Select two of these—PEP 443, HED 338, HED 346, BIOL 313, BIOL 406, BIOL 421, HOEC 105, HOEC 120, HOEC 207, HOEC 302, HOEC 407, PSYC 305 (5-7)

**Other programs**

Environmental programs are also offered through the College of Arts and Sciences and the College of Health and Community Services. Contact the Center for Environmental Programs, 124 Hayes Hall, for additional information.

## Family life education

See Department of Home Economics, page 77.

## French

314 or 365 Education Building, 372-0151

**Major** (meets special certification, kindergarten-twelfth grade) (24 hours of French beyond 202 plus EDCI 373 and 383)

FREN 351, 352, 353, 361, 371, 372 (17)

FREN electives at 400-level (7)

**Minor** (meets high school certification and validation of elementary certificate) (23 hours of FREN beyond 202 plus EDCI 373 and 383)

FREN 361, 351, 352, 353, 371, 372 (23)

**Other programs**

Programs in French also are available through the College of Arts and Sciences.

## Geography

442 Education Building, 372-0151

**Major** (meets high school certification in geography) (32 hours)

Select two from this group: GEOG 125, 126, 127, 213, 404, 405, 427, 433, 460, 471 (5-6)

Select two from this group: GEOG 225, 230, 337, 325, 327, 326, 331, 333, 334, 335, 402, 425, 426, 436, 442, 451, 452 (6)

Select two from this group: GEOG 341, 342, 343, 344, 345, 346, 347, 349, 350, 351 (4-6)

Geography electives (14-17)

**Minor** (meets high school certification in geography) (21 hours)

Select two from this group: GEOG 125, 126, 127, 213, 404, 405, 427, 433, 460, 471 (5-6)

Select two from this group: GEOG 225, 230, 337, 325, 327, 326, 331, 333, 334, 335, 402, 425, 426, 436, 442, 451, 452 (6)

Select two from this group: GEOG 341, 342, 343, 344, 345, 346, 347, 349, 350, 351 (6)

Geography electives (3-6)

**Other programs**

Programs in geography also are offered through the College of Arts and Sciences.

## German

314 or 365 Education Building, 372-0151

**Major** (meets special certification, kindergarten-twelfth grade) (23 hours)

GERM 317, 318, 417 (9)

GERM electives beyond 202 (GERM 260 and 360 may not be counted toward the major) (14)

EDCI 373 and 383 (6)

**Minor** (meets high school certification and validation of elementary certificate) (23 hours)

GERM 317, 318, 417 (9)

GERM electives beyond 202 (GERM 260 and 360 may not be counted toward the major) (8)

EDCI 373 and 383 (6)

Other programs in German also are available through the College of Arts and Sciences.

## Health

See School of Health, Physical Education, and Recreation, page 79.

## Hearing impaired program

451 Education Building, 372-0151

**Major** (meets state certification from K-12)

*First year* (31 hours)

BIOL 101 (3)

CDIS 223/224 (5)

PEG 100 (2)

HIST 151 or 152 (3)

HIST 205 or 206 (3)

SPCH 102 (3)

ENG 112 (3)

PSYC 201 (4)

GEOG 121 (2)

ART 101 (3)

*Second year* (35 hours)

LEM 301 (2)

PSYC 324 (3)

Physical science elective (6)

CDIS 301 (4)

HED 346 (3)

EDCI/FI 202 (2)

GEOG 122 (2)

MUSIC 249/349 (4)

MATH 241/242 (6)

EDCI 355 (3)

**Third year (30 hours)**

ENG 342 (3)  
 EDSE 431 (3)  
 EDSE 457 (3)  
 EDSE 451 (3)  
 EDSE 442 (3)  
 EDFI 402 or 429 (3)  
 EDFI 302 (3)  
 EDFI 408 (2)  
 CDIS 361 (3)  
 ENG 380 (4)

**Fourth year (32 hours)**

EDSE 461 (3)  
 EDSE 462/463 (6)  
 EDSE 464/465 (6)  
 CDIS 434/436 (4)  
 EDAS 409 (3)  
 EDSE 497 (10)

**History**

442 Education Building, 372-0151

**Major** (meets high school certification)  
 (33 hours)

Select three: HIST 151, 152, 205, 206, 280 (9)  
 Select one: HIST 301, 302, 303, 306, 307, 320,  
 323, 325, 326, 338, 419, 420, 421, 422, 425,  
 426, 427, 428, 429, 430, 433, 436, 437, 438 (3)  
 Select one: HIST 357, 363, 367, 377, 415, 444,  
 448, 454, 458, 459, 464, 469, 470, 471 (3)  
 Select one: HIST 304, 305, 309, 310, 311, 315,  
 316, 340, 360, 381, 382, 386, 401, 411, 413,  
 414, 441, 442, 462, 481, 483, 486 (3)  
 HIST electives, at least four of which must be at  
 400 level (15)

**Minor** (noncertifiable) (21 hours)

Select three: HIST 151, 152, 205, 206, 280 (9)  
 Select one: HIST 301, 302, 303, 306, 307, 320,  
 323, 325, 326, 338, 419, 420, 421, 422, 425,  
 426, 427, 428, 429, 430, 433, 436, 437, 438 (3)  
 Select one: 357, 363, 367, 377, 415, 444, 448,  
 454, 458, 459, 464, 469, 470, 471 (3)  
 Select one: 304, 305, 309, 310, 311, 315, 316,  
 340, 360, 381, 382, 386, 401, 411, 413, 414,  
 441, 442, 462, 481, 483, 486 (3)  
 HIST elective (4)

At least one history course must be at 400 level.

**Other programs**

Programs in history are also offered through  
 the College of Arts and Sciences.

**Home Economics**

See Department of Home Economics,  
 page 76.

**Industrial education  
 and technology**

See School of Technology, page 83.

**International studies**

442 Education Building, 372-0151

**Major** (meets high school certification in  
 social studies providing the student fulfills  
 the requirements outlined under social stud-  
 ies comprehensive major) (66 hours)  
 HIST 151; 453; 454; 205 and 206 OR 437 and  
 438 (15)

ECON 202, 203, 351 (9)  
 POLS 201, 301, 371, 372 (12)  
 SOC 101, 202, 231 (9)  
 GEOG 452; 121 and 122 OR 230 (6-7)  
 Social science electives (8-9)  
 Modern foreign language beyond 202 (6)

**Other programs**

A program in international studies also is  
 offered by the College of Arts and Sciences.

**Italian**

314 or 365 Education Building, 372-0151

**Minor** (meets high school certification and  
 validation of elementary certificate)  
 (24 hours)

ITAL 351, 352, 361, 362, 371, 372 (18)  
 EDCI 373 and 383 (6)

**Other programs**

A program in Italian also is offered by the  
 College of Arts and Sciences.

**Journalism**

104 University Hall, 372-2076

**Major** (meets high school certification in  
 journalism) (27 hours)

JOUR 103, 300, 414 (9)  
 Select one: JOUR 304, 311, 312, 330, 331, 380,  
 403, 404 (3)  
 JOUR electives (15)

**Minor** (meets high school certification in  
 journalism) (21 hours)

JOUR 103, 300, 414 (9)  
 Select one: JOUR 304, 311, 312, 330, 331, 380,  
 403, 404 (3)  
 JOUR electives (9)

**Other programs**

Other programs in journalism are offered  
 through the School of Journalism in the Col-  
 lege of Business Administration.

**Languages**

314 or 365 Education Building, 372-0151

Elementary education majors may have cer-  
 tificates validated for French, German, Ital-  
 ian, Russian or Spanish if they complete a  
 secondary minor in one of these areas. See  
 specific languages for further information.

**Latin**

314 or 365 Education Building, 372-0151

**Major** (meets high school certification)  
 (21 hours)

Courses in LAT beyond 202 (21) (up to 8 hours  
 may be taken from 480, 481, 485, 486)

**Minor** (meets high school certification)  
 (18 hours)

Courses in LAT beyond 202 (12)  
 EDCI 373 and 383 (6)

**Other programs**

Programs in Latin also are offered by the  
 College of Arts and Sciences.

**Learning disabilities and/or  
 behavioral disorders**

451 Education Building, 372-0151

**Major** (meets special kindergarten-twelfth  
 grade exceptional children certification IF  
 another certifiable major is completed)

*First year* (30 hours)  
 ART 101 (3)  
 ENG 112 (3)  
 PEG 100 (2)  
 HIST 151 or 152 (3)  
 PSYC 201 (4)  
 EDCI 202 or EDFI 202 (2)  
 BIOL 104 (4)  
 GEOG 121 and 122 (4)  
 SPCH 102 (3)  
 Physical science elective (2-3)

**Second year (32 hours)**

EDFI 302 (3)  
 HIST 205 and 206 (6)  
 ENG literature (3)  
 L&EM 301 (2)  
 EDSE 431, 433, and 451 (8)  
 MATH 241 and 242 (6)  
 Social science elective (1-3)  
 Physical science elective (3)

**Third year (32 hours)**

ENG 342 (3)  
 EDFI 402 or 429 (3)  
 EDSE 437, 443, 453, 447 and 448 (13)  
 EDCI 355 (3)  
 PEP 433 (3)  
 MUED 249 and 349 (4)  
 HED 346 (3)

**Fourth year (30 hours)**

EDFI 408 (2)  
 CDIS 451 or 471 (3-4)  
 EDSE 492 (10)  
 EDAS 409 (3)  
 EDSE 442, 456 and 457 (9)  
 ART 482 (3)

**Librarian**

See Media Specialist, page 73.

**Mathematics**

365 Education Building, 372-0151

**Major** (meets high school certification)  
 (32 hours)

MATH 131, 232, 233, 332, 339, 421, 441 (26)  
 MATH elective at 300/400 level, excluding 395,  
 414, 490, 495 (3)  
 MATH 402 or 405 (3)

**Minor** (meets high school certification)  
 (22 hours)

MATH 131, 232, 332, 339 (16)  
 MATH 402 or 405 (3)  
 MATH 233 or MATH elective at 300/400 level  
 (excluding 395, 414, 490, 495) (3)

**Minor** (elementary education majors only —  
 does not lead to validation or certification)  
 (22-25 hours)

MATH 131 (5) or MATH 124 (4)  
 MATH 241 (3) and MATH 242 (3) or MATH  
 243 (4)  
 MATH 247 (3) or MATH 115 (3)  
 MATH 414 (5)  
 CS 101 (3) or CS 100 (3).  
 EDCI 423 (3)

**Other programs**

Programs in mathematics also are offered  
 by the College of Arts and Sciences.

**Media specialist/librarian**

216 Hayes Hall, 372-2461

**Major** (meets special certification, kinder-  
 garden-twelfth grade in educational media)  
 (29 hours)  
 LEM 203; 403, 408; 407, 411, 428, 430, 450 (24)  
 ENG 342 (3)

Select two hours from this group—LEM 433, 438,  
 404, 405, 431, 434, 441, 490 (2)

**Minor** (meets high school certification in  
 educational media) (21 hours)  
 LEM 203, 403, 407, 408, 128, 430, 450 (21)

**Minor** (meets certification for validation of  
 an elementary certificate for educational  
 media; available for elementary education  
 majors only) (24 hours)  
 LEM 203, 403, 407, 408, 428, 430, 450 (21)  
 ENG 342 (3)

**Other programs**

A program in library and educational media also is offered through the College of Arts and Sciences.

## Moderately, severely and profoundly handicapped children

451 Education Building, 372-0151

**Major** (meets special exceptional children certification kindergarten-twelfth grade)

*First year* (30 hours)

ART 101 (3)  
ENG 112 (3)  
PEG 100 (2)  
HIST 151 or 152 (3)  
PSYC 201 (4)  
EDCI 202 or EDFI 202 (2)  
BIOL 104 (4)  
GEOG 121 and 122 (4)  
SPCH 102 (3)  
Physical science elective (2-3)

*Second year* (31 hours)

HIST 205 and 206 (6)  
EDFI 302 (3)  
MATH 241 and 242 (6)  
L&EM 301 (2)  
EDSE 431, 433 and 451 (8)  
ENG literature (3)  
Physical science elective (3)

*Third year* (30 hours)

ART 482 (3)  
ENG 342 (3)  
PEP 433 (3)  
CDIS 423 (3)  
EDSE 437, 440, 443, and 470 (10)  
MUED 249 and 349 (4)  
EDFI 402 or 429 (3)  
Social science elective (1-3)

*Fourth year* (32 hours)

EDFI 408 (2)  
EDAS 409 (3)  
EDSE 492 (10)  
EDCI 355 (3)  
EDSE 442, 445, 456, and 457 (11)  
HED 346 (3)

**Music**

1031 Musical Arts Building, 372-2181

**Major** (see College of Musical Arts, page 99)

All prospective music minors must complete the music placement examination before enrolling in any of the MUCH courses.

**Minor—secondary instrumental** (meets high school certification) (30-31 hours)

MUCH 131, 132, 231 (11)  
MUCH 141, 142 (4)  
MUED 150, 151 or 154 (1-2)  
MUSP major instrument (3)  
MUSP 305 and 306 (4)  
MUED 340 (5)  
MUSP large ensembles (2)

**Minor—secondary vocal** (meets high school certification) (30-31 hours)

MUCH 131, 132, 232 (10)  
MUCH 141, 142 (4)  
MUED 150, 151 or 154 (1-2)  
MUED 170, 177 or studio voice (4)  
MUSP 305, 306 (4)  
MUED 340 (5)  
MUSP large ensembles (2)

**Minor**—(elementary education majors only) (30-32 hours)

MUCH 125, 131, 132, 231 (14)  
MUCH 141, 142 (4)  
MUSP 305 (2)  
MUED 170 or studio voice (1)  
MUED 150, 151 or 154 (1-2)  
MUED 254 or 255 (1-2)  
MUED 340 (5)  
MUSP large ensembles (2)

**Other programs**

Programs in music also are offered by the College of Musical Arts and the College of Arts and Sciences.

## OWE/OWA work experience certification

See Work Experience, page 75.

**Philosophy**

365 Education Building, 372-0151

**Minor** (does not lead to teacher certification) (24 hours)

PHIL 101, 103, 490 (7)  
EDFI 408 (2)  
PHIL electives (6)  
Select one: PHIL 318, 245, 325, 327, 332, 342, 425 (3)

Select one: PHIL 102, 204, 107 (3)

Select one: PHIL 211, 311, 212, 313 (3)

The following endorsements lead to a strong background in philosophy, but do not lead to teacher certification:

**Endorsement—teaching courses in philosophy** (14 hours)

PHIL 101, 103, 490 (9)  
PHIL 102, 107 or 204 (3)  
EDFI 408 (2)

**Endorsement—Philosophy as a supplement to major field of study** (14 hours)

PHIL 101, 103 (6)  
EDFI 408 (2)  
PHIL electives (6)

**Other programs**

Other programs in philosophy also are offered through the College of Arts and Sciences.

**Physical education**

See School of Health, Physical Education, and Recreation, page 79.

**Physics**

529 Education Building, 372-0151

**Major** (meets high school certification for physics) (27 hours)

CHEM 125 or 135 (5)  
PHYS 211 and 212 OR 201 and 202 (10)  
PHYS 301, 305, 313 (5)  
PHYS Electives (7)

**Minor** (meets high school certification for physics) (20 hours)

PHYS 211 and 212 OR 201 and 202 (10)  
PHYS 301, 305, 313 (5)  
CHEM 125 or 135 (5)

**Other programs**

Programs in physics also are offered through the College of Arts and Sciences.

**Political science**

442 Education Building, 372-0151

**Major** (meets high school certification) (30 hours)

POLS 201 and 302 (6)  
Electives in POLS including at least one course from the following:  
POLS 250, 271, 301, 337, 351, 354, 355, 361, 366, 368, 402, 403, 423, 454, 460  
POLS 416, 417, 418, 419 or 420  
POLS 330, 331, 421, 422 or 430  
POLS 271, 337, 371, 372, 374, 473, 475  
POLS 341, 434, 440, 443  
POLS 304, 331, 333, 334, 335, 336, 345, 346, 347, 405, 421, 422

**Minor** (meets high school certification) (21 hours)

POLS 201  
Electives including at least one course from each of the following groups:  
POLS 250, 271, 301, 337, 351, 354, 355, 361, 366, 368, 402, 403, 423, 454, 460  
POLS 416, 417, 418, 419 or 420  
POLS 330, 331, 421, 422 or 430  
POLS 271, 337, 371, 372, 374, 473, 475  
POLS 341, 434, 440, 443  
POLS 302, 304, 331, 333, 334, 335, 336, 342, 345, 346, 347, 405, 421, 422

**Other programs**

Programs in political science also are offered by the College of Arts and Sciences.

**Psychology**

365 Education Building, 372-0151

**Major** (meets high school certification in social psychology) (36-37 hours)

*First year*  
PSYC 201 (4)

*Second year*

PSYC 270 and 290 (7)  
PHIL 101, 102, 204, or 230 (3)

*Third year*

PSYC 301, 313, 320, 321, 322, 328, 330 and/or 340 (8)  
PSYC 311 (3)  
PSYC 303 or 304 or 312 (2-3)  
Appropriate methods course

*Fourth year*

PSYC 403, 405, and 460 (9)

**Minor** (meets high school certification in social psychology) (32 hours)

*First year*  
PSYC 201 (4)

*Second year*

PSYC 270 and 290 (7)  
PHIL 101, 102, 204, or 230 (3)

*Third year*

PSYC 301, 313, 320, 321, 322, 328, 330, or 340 (4)  
PSYC 311 (3)  
PSYC 303, 304, 305, or 403 (2-3)

*Fourth year*

PSYC 405 and 460 (6)  
PSYC elective (3)

**Other programs**

Programs in psychology are also offered by the College of Arts and Sciences.

**Recreation**

See School of Health, Physical Education, and Recreation, page 80.

## Restaurant management

See Department of Home Economics, page 77.

## Russian

314 or 365 Education Building, 372-0151

**Major** (meets special certification, kindergarten-twelfth grade) (21 hours)  
RUSN 317, 318, 319, 431 (11)  
RUSN electives beyond 202 (10)

**Minor** (meets high school certification and validation of elementary certificate) (23 hours)

RUSN 317, 318, 431 (9)  
RUSN electives beyond 202 (8)  
EDCI 373 and 383 (6)

### Other programs

Programs in Russian also are offered by the College of Arts and Sciences.

## Science comprehensive

529 Education Building, 372-0151

**Major** (meets high school certification for teaching all science subjects) (60 hours)

GEOL 104, 105 (8)  
GEOG 125, 213 (6)  
CHEM 125, 126 OR 135, 136 (10)  
BIOL 201, 202 (10)  
BIOL elective (3)  
ASTR 212 (3)

Select two: GEOL 304, 306, 418, 420 (6-8)  
PHYS 201, 202 OR 211, 212, 301 (10-13)  
Electives in BIOL, CHEM, PHYS (0-4)

**Minor** (meets high school certification for general science) (34-37 hours)

BIOL 201, 202 (10)  
PHYS 201, 202 OR 211, 212, 301 (10-13)  
CHEM 125, 126 OR 135, 136 (10)  
GEOL 104 (4)

## Social studies

442 Education Building, 372-0151

**Major** (meets high school certification in social studies) (60 hours)

SOC 101, 202, 231 (9)  
GEOG 121, 122 (4)  
ECON electives (6)  
HIST electives 300/400 level (3)  
POLS 302 (3)  
POLS 101 or 201 (3)  
HIST 151, 152, 205, 206, 280 (6)  
Electives in endorsement (26)

Students must consult an assigned social studies adviser and follow the checksheet given them. The checksheet indicates the courses appropriate for first and second endorsements in history, political science, geography, economics and sociology. Upon graduation a student is certified to teach any endorsements completed.

## Sociology

365 Education Building, 372-0151

**Minor** (meets high school certification) (21 hours)

SOC 101 (3)  
Select 6-7 hours: SOC 361; HOED 105 or 302, 107, 320, 321, 405, 406, 407, 408 (6-7)  
Select 6-7 hours: SOC 231, 301, 302, 303, 311, 315, 317, 331, 334, 352, 369, 370, 371, 415, 416 (6-7)

Select 6 hours: SOC 202, 312, 316, 341, 418, 441, 442 (6)

### Other programs

Programs in sociology also are offered by the College of Arts and Sciences.

## Spanish

314 or 365 Education Building, 372-0151

**Major** (meets special certification, kindergarten-twelfth grade) (24 hours beyond 202)  
SPAN 351, 352, 367, 368, 371 (15)  
SPAN 377 or 378 (3)

SPAN electives at 400-level (6)

**Minor** (meets high school certification and validation of elementary certificate) (24 hours)

SPAN 351, 352, 371 (9)  
SPAN elective at 300/400 level (3)  
SPAN 377 or 378 (3)  
SPAN 367 or 368 (3)  
EDCI 373 and 383 (6)

### Other programs

Programs in Spanish also are offered by the College of Arts and Sciences.

## Special education

See communication disorders; hearing impaired children; educable mentally retarded; learning disabilities and/or behavior disorders; and moderately, severely and profoundly retarded. Also see adapted physical education in the School of Health, Physical Education, and Recreation.

## Speech communication

365 Education Building, 372-0151

**Major** (meets high school certification) (42 hours)

SPCH 102, 351 (6)  
THEA 141, 202, 241, 341 (12)  
IPCO 305 (3)  
CDIS 223 (3)  
RTVF 260, 263 (6)  
Select one: IPCO 203 or 306 (3)  
Select one: IPCO 204 or 205 (3)  
Select one: THEA 243 or 347 or 348 (3-4)  
Select one: IPCO 303 or 307 (3)

**Minor** (meets high school certification) (35 hours)

SPCH 102 (3)  
THEA 202, 241, 341, 141 (12)  
RTVF 260, 263 (6)  
CDIS 471 (3)  
Select one: IPCO 203 or 306 (3)  
Select one: IPCO 204 or 205 (3)  
Select one: THEA 243 or 347 or 348 (3-4)  
Select one: RTVF 252 or IPCO 303 or THEA 340 or CDIS 224 or SPCH 351 (2-3)

### Other programs

Programs in speech communication also are offered through the College of Arts and Sciences and its School of Speech Communication.

## Speech and hearing therapy

109 South Hall, 372-2136

**Major** (meets special kindergarten-twelfth grade exceptional children certification in speech and hearing therapy)

*First year* (31 hours)  
BIOL 101 or 104 (3-4)

SOC 231 (3)  
PEG 100 (2)  
PSYC 201 (4)  
ENG 112 (3)  
SPCH 102 (3)  
CDIS 223 and 224 (5)  
EDCI 202 or EDFI 202 (2)  
PHYS 100, PHYS 350, or MATH 122 (3)  
Social science elective (3)

*Second year* (35 hours)  
EDFI 302 (3)  
PSYC 270 and 305 (5)  
IPCO 203 or 306 (3)  
CDIS 301, 311, 351 (11)  
THEA 340 (3)  
ENG 342 and 380 (7)  
Social science elective (3)

*Third year* (35 hours)  
EDSE 431 and 433 (5)  
EDFI 402 and 408 (5)  
PSYC 303 or 304 (2-3)  
L&EM 301 (2)  
CDIS 321, 331, 361, 401, 411, 421, 434 (18)

*Fourth year* (35 hours)  
EDCI 355 (3)  
CDIS 497 (10)  
EDSE 451 (3)  
CDIS 341, 431, 461, 481 (11)  
PSYC 405 (3)  
Fine arts elective (5)

## Work experience

365 Education Building, 372-0151

**Certification pattern** (meets certification in Occupational Work Experience and Occupational Work Adjustment programs). Open to majors or minors in business education, distributive education, educable mentally retarded, home economics and industrial education. See appropriate adviser.

Required methods sequence in major. Partial student teaching in the work experience area.

One course in developmental reading by advisement.

EDFI 412  
BUSE 370, 462 and 470  
Equivalent of one year of gainful employment in business or industry.

# Department of Home Economics

206 Johnston Hall, 372-2026

As an interdisciplinary field of study, home economics is concerned with the relationship of the laws, conditions, principles and ideals which deal with individuals' immediate physical environment and with their nature as social beings. Degrees in home economics are offered through the colleges of education, arts and sciences, and health and community services. The department provides students with the opportunity to major or minor in foods and nutrition; home economics education; human development and family studies; resource management and consumer science; and textiles, clothing and interior design. There are 12 undergraduate majors, which are identified below by college and degree.

Individuals completing degree requirements within home economics must meet the general education requirements specified by the college in which the program is housed. Advisers are available within the department to meet with students and to discuss admission standards, degree requirements, and employment opportunities related to each of the major programs.

## College of Education

### Bachelor of science in education

Teacher Certification Programs

(See introduction to College of Education for general education requirements.)

### Early childhood education\*

206 Johnston Hall, 372-2026

**Major** (meets elementary certification, kindergarten-eighth grade)  
This program also prepares students to work with infant, toddler, and preschool programs, public and private day care centers, as well as other agencies serving children.

*First year* (36-37 hours)  
ART 101 (3)  
ENG 112 (3)  
PEG 100 (2)  
HIST 151 or 152 (3)  
HOEC 123 (3)

EDCI 202 or EDFI 202 (2)

BIOL 101 or 104 (3-4)

GEOG 121 and 122 (4)

HED 109 (3)

SPCH 102 (3)

Physical science (7)

*Second year* (32 hours)

HIST 205 and 206 (6)

PSYC 201 (4)

HOEC 207 and 223 (5)

HED 346 (3)

L&EM 301 (2)

MATH 241 and 242 (6)

EDCI 221 (3)

ENG literature (3)

*Third year* (41 hours)

EDFI 302 and 342; EDCI 351, 352, 353, 355, 356

and 357 (24) (meets certification for kindergarten through eighth grades); or PSYC 303 and 304 (5) or HOEC 320 and 321 (6)

ART 343 or IE 316 (2)

PEP 342 (3)

EDCI 321 (2)

ENG 342 (3)

MUED 249 and 349 (4)

HOEC 224 (3)

*Fourth year* (36-37 hours)

HOEC 421 and 423 (6)

EDSE 421 (3)

EDCI 492 (10)

EDAS 409 (3)

CDIS 471 (3)

SOC 316 or 361 (3)

PSYC 321 or 322 or HOEC 422 (3-4)

EDFI 408 and 402 (5)

Plus current First Aid Certificate

**Minor** (does not lead to teacher certification) (27 hours)

HOEC 123, 223, 224, 421, 422, and 423 (17)

EDSE 421 (3)

EDCI 221 and 321 (4)

HOEC 320 or 321 or EDFI 342 or PSYC 303 (3)

### Home economics education

206 Johnston Hall, 372-2026

**Major**—homemaking and consumer education.

The program options in home economics education are designed to prepare those who wish to teach home economics from junior high school through adult education. The curricula are designed to meet the educational requirements necessary for one or more of the certification options available in vocational homemaking and consumer education, child care services job training, community and home services job training, fabric services job training, food services job training, multi-area job training, occupational

work adjustment/occupational work experience, general home economics and family life education.

*First year* (30 hours)

CHEM 115, 116 (8)

ENG 112 (3)

HOEC 101, 103, and 105 (9)

EDCI 202 or EDFI 202 (2)

SPCH 102 (3)

PEG 100 (2)

ART 101 (3)

*Second year* (33 hours)

HOEC 202, 205, 210, 212, 250, 303, and 307 (21)

PSYC 201 (4)

ENG literature (3)

EDFI 302 (3)

L&EM 301 (2)

*Third year* (28 hours)

HOEC 206, 311, 321, 322, 352, and 353 (18)

ECON 200 (3)

EDCI 360 (2)

EDSE 311 (2)

SOC 101 (3)

*Fourth year* (33 hours)

HOEC 302, 354, 405, and 406 (12)

EDFI 402 (3)

HOEC 497 (10)

EDAS 409 (3)

EDFI 408 (2)

Elective in major (3)

A home economics education major with the preceding program may prepare for an additional certificate to teach job training in secondary vocational programs by completing the following additional course work.

*Child care services—job training* (20 hours)

HOEC 389 (2)\*

ENG 342 (3)

PEP 342 (3)

HOEC 224, 421, 422, and 423 (12)

*Community and home services—job training* (17 hours)

HOEC 389 (2)\*

HED 109 (3)

MGMT 305 (3)

HOEC 331 and 333 (6)

BIOL 313 (3)

*Fabric services—job training* (20 hours)

HOEC 389 (2)\*

HOEC 313, 404, 412, 414, and 417 (15)

ART 103 (3)

*Food services—job training* (18 hours)

HOEC 389 (2)\*

HOEC 331, 333, and 431 (9)

DESN 301 (3)

BIOL 313 (4)

\*The early childhood education option is an interdepartmental program involving home economics, educational curriculum and instruction, educational foundations and inquiry and special education.

**Multi-area job training** (2 hours)  
HOEC 389 (2)\*

**OWA/OWE—job training** (12 hours)

This program is designed to be compatible with and build upon majors in home economics education.

EDFI 412 (2)  
BUSE 370, 462, 470 (8)  
HOEC 389 (2)\*

**Family Life Certification** (34 hours)

This program is designed to be compatible with and build upon majors in home economics education.

BIOL 104 and 331 (7)  
HED 109 (3)  
RED 205 (3)  
HED 313, 338, and 409 (9)  
HOEC 120 (3)  
HOEC 407 (3)

Select one: SOC 301 or PSYC 311 (3)

Select one: HOEC 107 or 408 (3)

\*One year of acceptable on-the-job experience may be substituted, but no hours of credit are added to transcript. See a home economics adviser.

**Minor** (meets high school certification) (40 hours)

HOEC 101, 105, 202, 205, 207, 210, 212, 250, 302, 303, 321, 352, and 405

**Minor** (non-certifiable) (24 hours)

HOEC 101, 103, 105, 205, 207, 210, 303, 320

## Bachelor of science in education

Other professional options

## Child and family development

206 Johnston Hall, 372-2026

The emphases of the program are on human development, social relationships and the family life cycle. Practical experience in the nursery school and other community facilities provides opportunities for supervised observation and experience with the various aspects of human development.

Careers in these fields are teaching in nursery schools or day care centers; working in government Headstart programs and community social services; working with youth groups, retirement homes, nursing homes and vocations in which a knowledge of human relationships is required. This program may be combined with family life education or job training in child care services for teacher certification. A foundation is provided for graduate study and for professional careers in which additional work is required, such as child and family counseling, and the administering of programs for families and children. For suggested courses, follow the outline below.

### Major

**First year** (29-30 hours)

ART 101 (3)  
ENG 112 (3)  
PEG 100 (2)  
SPCH 102 (3)  
BIOL 104 (4)  
SOC 101 (3)  
HOEC Selections\* (6)  
Elective (3)  
Science elective (2-3)

**Second year** (30-31 hours)

ENG 342 (3)  
TECH 313 (3)  
HOEC Selections\* (15)  
PSYC 201 (4)  
Social science electives (2-3)  
Electives (3)

**Third year** (31-32 hours)

EDFI 302 and 402 (6)  
HOEC Selections\* (15)  
THEA 340 (3)  
Electives (5)  
Science elective (2-3)

**Fourth year** (31 hours)

EDFI 408 (2)  
HOEC 489 (5-12)  
HOEC Selections\* (8)  
Electives (9-16)

\*44 hours must be elected from these courses:

HOEC 105, 107, 408, 120, 205, 207, 302, 320, 321, 322, 224, 407, 421, 422, 423, 435, 389; HED 313.

**Child care services** (29 hours)

A child and family development major can prepare for a job training certificate in child care services by completing the following course work:

HOEC 250, 352, and 353 (9)  
EDSE 431 (3)  
ACCT 325 (3)  
HOEC 497 (10)  
PEP 342 (3)  
HOEC 389 (1)

**Minor** (33 hours)

HOEC 105, 120, 205, 207, 302, 320, 321, 322, 389, 421, and 423 (31-35)  
ENG 342 (3)  
THEA 340 (3)  
TECH 313 (3)

Select a total of 33 hours from the above courses.

**Family life certification—add on** (64 hours)

This program is designed to be compatible with and build upon the child and family development major.

BIOL 331 (3)  
ECON 200 (3)  
HOEC 497 (10)  
Select one: HOEC 103, 303, 406 (3)

HOEC 250 (3)  
HOEC 352 (3)  
HOEC 405 (4)  
HED 109 (3)  
HOEC 207 (3)  
RED 205 (3)  
HED 313 and 338 (6)  
PSYC 303 (3)  
HED 409 (3)  
EDCI or EDFI 202 (2)  
LEM 301 (2)  
EDSE 311 (2)  
EDCI 360 (2)  
EDAS 409 (3)  
Select one: PSYC 311 or SOC 301 (3)

## Bachelor of science in technology

The Department of Home Economics offers a program which leads to the Bachelor of Science in Technology degree. For information on other programs leading to the Bachelor of Science in Technology, see School of Technology. Also see page 7 for degree requirements.

## Dietetics

206 Johnston Hall, 372-2026

A student who completes the course work below will qualify for an internship or pre-planned work experience in an institution approved by the American Dietetic Association. Upon completion of this postgraduate training and passing an examination, the student will be eligible for membership in that professional association and for national registration.

**First year** (26-27 hours)

BIOL 204 OR 104 (4-5)  
ENG 112 (3)  
MATH 124 (4)  
SOC 101 (3)  
CHEM 115 (4)  
HOEC 210 (3)  
PEG 100 (2)  
SPCH 102 (3)

**Second year** (33 hours)

BIOL 313 (3)  
ECON 200 (3)  
HOEC 212, 307 (6)  
MIS 200 OR CS 100 (3)  
PSYC 201 (4)  
CHEM 116 (4)  
EDFI 302 (3)  
ENG literature (4)  
ACCT 325 (3)

**Third year** (34 hours)

BIOL 331 OR 332 (3)  
HOEC 331, 333, 405, and 432 (13)  
MGMT 360 and 361 (6)  
DESN 301 (3)  
Electives (HOEC 389, MGT 300, MGT 451, LEGS 301, recommended) (10)

**Fourth year** (20-27 hours)

HOEC 431, 433, 434, 435, and 480 (15)  
Electives (HOEC 489, recommended/5-12) (10-15)

A dietetics program also is offered in the College of Health and Community Services.

## Restaurant management—institutional food service

206 Johnston Hall, 372-2026

Students who complete this program are qualified to work in food production, sales and service in institutions or restaurants at the management level. The flexibility of this program permits students to strengthen existing competencies in food science and food production management. Industrial experience is gained through supervised field experiences in a job related to the student's goals.

**First year** (33 hours)

BIOL 204 (5)  
CHEM 115 (4)  
HOEC 210 (3)  
MATH 115, 130 (7)  
SOC 101 (3)  
SPCH 102 (3)  
ENG 112 (3)  
PEG 100 (2)  
Any IPCO course (3)

**Second year** (21 hours)

ECON 200 (3)  
DESN 301 (3)  
ENG literature elective (3)  
HOEC 212 and 326 (5)  
PSYC 201 (4)  
MIS 200 (3)



*Third year (24 hours)*  
ACCT 221 and 222 (6)  
HOEC 207, 331, and 333 (9)  
MGMT 360 and 361 (6)  
BA 203 (3)

*Fourth year (44 hours)*  
BIOL 313 (4)  
HOEC 431, 433, and 480 (12)  
Electives (28)  
Suggested electives recommended but not required (1-5)  
HOEC 489 (5-12)

## Home economics programs in other colleges

### College of Arts and Sciences

Bachelor of arts degree.

Five programs in home economics are available through the College of Arts and Sciences. These are planned professional programs in fashion merchandising and interior design; major programs in food science and nutrition, and textiles and clothing; and a general home economics major with a concentration in foods and nutrition or textiles and clothing. No minor is required for the two planned professional programs. Fashion merchandising students may choose the option to study at the Fashion Institute of Technology, New York, for a year during the junior or senior year. Programs must be planned with the adviser no later than the second year. After the second year students may participate in a supervised field experience during the summer or academic year. The following programs are available.

### Fashion merchandising

206 Home Economics Building, 372-2026  
This is a planned program designed to prepare students for careers in business and industry. These may include executive management positions; retail or wholesale merchandising; educational and/or sales representative for fabric, apparel and accessory firms. No minor is required. See page 37.

### Food science and nutrition

206 Johnston Hall, 372-2026  
A major program designed for the student who wishes to specialize in the food science field preparatory to graduate study or a career in business or industry. A minor is required. See page 38.

### Home economics general

206 Johnston Hall, 372-2026  
A major program designed for the student who desires a general home economics background with a concentration in foods and nutrition, textiles and clothing, or plans to continue in graduate school. A minor is required. See page 38.

### Interior design

209 Home Economics Building, 372-2026  
The interior design program trains students in the planning and executing of residential and contract interiors. Course work is designed to help students evaluate problems and devise solutions for them. Students who complete the approved four-year program are eligible to apply for membership in the American Society of Interior Designers (ASID). See page 38.

### Textiles and clothing

101 Home Economics Building, 372-2026  
A major program designed for the student who wishes to specialize in the textiles and clothing field preparatory to graduate study or for a career in business and industry. A minor is required. See page 38.

### College of Health and Community Services

#### Child and family community services

206 Johnston Hall, 372-2026  
This is a multidisciplinary program for students who wish to concentrate in either children's services or family services. Specific courses of study are available for students who wish to pursue careers working with entire families, adolescents, infants and children or other specific groups of individuals. Career options in this program include: teaching and administration within pre-schools and infant centers, performing services within a variety of human service agencies including hospital based developmental programs. See page 90 for details.

#### Dietetics

206 Johnston Hall, 372-2026  
A professional program leading to membership and registration in the American Dietetic Association is offered through the College of Health and Community Services. See page 91.

# School of Health, Physical Education and Recreation

Betty van der Smissen, director, 200 Memorial Hall, 372-2876

The School of Health, Physical Education and Recreation is organized into the divisions of general physical education (PEG), health education (HED), physical education-professional (PEP), recreation and dance (RED), sports studies and management (SSM), and intramurals and club sports (IM/CS).

Individuals completing requirements in program areas within the school are prepared to begin careers as teachers of physical education for typical and/or atypical populations, health education, driver education, or as athletic coaches and athletic trainers.

Concentrations in recreation or sport studies programs are designed to prepare students for management, supervisory, and leadership positions in a variety of park, recreational, and commercial programs. A program in dance prepares individuals in dance education or in dance as a performing art.

In addition, the School of Health, Physical Education and Recreation provides opportunities for active participation in a broad spectrum of instructional physical education offerings and participation in intramural and club sports, as well as performance opportunities in the University Performing Dancers and Swan Club (synchronized swimming).

Students seeking enrollment in any of the program offerings of the school are advised to consult a specific program area adviser for current program admission standards and retention procedures.

## General physical education

**PEG 100**—General physical education. Each freshman must fulfill the University requirement of two units in activities that include archery, badminton, bowling, curling, dance, jogging, tennis, horseback riding, racquetball, skiing, swimming, ice skating, diving, and weight training. Most activities are coeducational, graded S/U, and meet two hours per week.

**PEG 200**—General physical education. Elective program in diverse activities, open to any student who has completed the University requirement of two hours of PEG 100. Two hours per week.

## Intramurals and club sports

Organized intramural and club sport competition is available through participation in:

1. coed activities—indoor, outdoor;
2. recreational sports for men;
3. recreational sports for women;
4. club sports units and performance groups in aquatics and dance.

## Bachelor of science in education

All programs in the School of Health, Physical Education and Recreation lead to the Bachelor of Science in Education degree.

### Dance

Leads to a strong background in dance education, performing arts or dance activity depending on major and interests.

**Minor** (does not lead to teacher certification) (24 hours)

RED 115/215, 120/220, 326, 424 and 426  
Select one of the following concentrations:

*Dance education* (12 hours):

RED 106, 111, 215/315, 325, and 387/487

*Dance performance* (12 hours)

RED 220/320, 224, 215/315, 325 and 327

### Driver education

Certification pattern (6 hours)  
HED 362 and HED 462 (6)

### Health education

202 Eppler North, 372-2525

**Major** (meets special certification, kindergarten-twelfth grade) (44-46)

HED 209, 230, 313, 338, 340, 348, 393, 409, and 481 (24)

PSYC 201 (4)

SOC 101 (3)

BIOL 331 and 332 (6)

HOEC 207 (3)

HED 314, 346, 480; PEP 360, 443; HOEC 105, 302; PSYC 305; PHIL 319; BIOL 313; ENVH 401, 402, 403, 404. (Select four to six hours)

**Minor** (meets seventh-twelfth grade certification) (24)

HED 209, 313, 338, 348, 409 (15)

BIOL 332 (3)

Six hours from: HED 230, 314, 340, 480, 481; PEP 360; HOEC 105, 207, 302; PSYC 305; PHIL 319; BIOL 313; ENVH 401, 402, 403, 404.

## Physical education

**Major—Plan I, elementary concentration** (meets special certification, kindergarten-twelfth grade)

*First year* (30 hours)

PEP 116, 121, 124, 137, 138 and 203 (9)

RED dance elective (2)

ENG 112 (3)

BIOL 104 (4)

SPCH 102 (3)

Group III electives (4)

Electives (5)

*Second year* (31-32 hours)

PEP 230, 238, 233 and 241 (10)

HED 313 (3)

LEM 301 (2)

BIOL 332 (3)

ENG literature (2-3)

Group IV electives (3)

Electives (4)

PSYC 201 (4)

*Third year* (31 hours)

PEP 237, 332, 340, 350, and 428 (16)

HED elective (3)

EDFI 302 (3)

Group electives (4)

PEP elective professional activity (1)

Electives (4) (Student teaching or practicum at secondary level suggested)

*Fourth year* (30 hours)

PEP 303, 402, 433 and 438 (10)

PEP 227 or 228 (1)

EDFI 408 (2)

EDAS 409 (3)

PEP 497 (14)

Students are encouraged to enroll in the elementary school physical education concentration as freshmen. However, to be admitted officially to the program, the student must have completed the equivalent of two semesters and the following:

1. completed ENG 112 and SPCH 102 with a grade of C or better and two additional general education courses;
2. earned a University accumulative point average of 2.3 and a 2.5 in all PEP, RED, HED or SSM courses;
3. completed PEP 137, 138, 233, 238 and 241 with a 3.0 grade point average; and
4. completed a minimum of three additional PEP 100 and/or 200 level activity courses.
5. presented written recommendations from two faculty members; and
6. received affirmative action for admittance of 2/3 of Plan I faculty.

In addition, the following traits are deemed essential for those expecting to contribute positively as a teacher and/or as a member of a community. The candidate must:

1. be capable of critical thinking, self-direction and motivation for the purpose of selecting and attaining individual and professional goals;
2. demonstrate professional drive and commitment to education and teaching; and
3. develop a set of values which reflects a character worthy of working with young children.

To be eligible for student teaching the student must have:

1. been accepted into Plan I program;
2. completed 90 credit hours including: ENG 112, SPCH 102, PEP 137, 138, 233, 237, 238, 241, 332 and 428; PSYC 201, and EDFI 302;
3. achieved a 2.3 University accumulative grade point average; and
4. filed an application for student teaching with Plan I coordinator and College of Education Field Experiences Office.

**Major—Plan II, secondary concentration**  
(meets special certification, kindergarten-twelfth grade)

*First year* (31 hours)

PEP 137, 138, and 256 (4)  
ENG 112 (3)  
BIOL 104 (4)  
PEP activities (10)  
Group III electives (5)  
SPCH 102 (3)  
Electives (2)

*Second year* (31 hours)

PEP 230, 241, and 247 (9)  
LEM 301 (2)  
BIOL 332 (3)  
PSYC 201 (4)  
ENG literature (2-3)  
Group IV electives (2-3)  
Electives or minor (3)  
PEP/RED activities (5)

*Third year* (30 hours)

PEP 303, 332, 350, 356, 360, and 362 (18)  
HED 313 (3)  
EDFI 302 (3)  
Electives (6)

*Fourth year* (30 hours)

PEP 402, 412, and 433 (8)  
HED elective (3)  
PEP 497 (10)  
EDFI 408 (2)  
EDAS 409 (3)

Electives or minor (4) (Student teaching or practicum at elementary level suggested)

A candidate must apply for admission. To be admitted the student must have:

1. completed SPCH 102 and ENG 112 with a grade of C or better;
2. completed two other general education courses;
3. successfully completed PEP 137, 138, 241, 247 and 256;
4. earned a 2.3 University accumulative grade point average;
5. have earned a PEP accumulative grade point average of 2.5, including all HED/PEP/RED courses which are Plan II program requirements;
6. have demonstrated attainment of minimal standards in four required professional and one elective professional activities; and

7. have completed 10 PEP credit hours on the BGSU main campus.

To be eligible for student teaching the student must have:

1. completed 90 credit hours including ENG 112, SPCH 102, PSYC 201, EDFI 302 and PEP 362;
2. been officially accepted into PEP Plan II program;
3. attained a University accumulative grade point average of 2.3;
4. attained a major accumulative grade point average of 2.5;
5. successfully completed all professional activity competencies (six required 100-level and three elective 200-level activity courses); and,
6. filed an application for student teaching with PEP Division during second semester of year prior to year of anticipated student teaching (in addition to filing application in Field Experiences Office).

**Major—Plan III, secondary concentration**  
(meets special certification in physical education and health education, seventh-twelfth grade)

*First year* (31 hours)

PEP 256 (2)  
HED 209 (3)  
PEP professional activities (10)  
BIOL 104 (4)  
ENG 112 (3)  
SOC 101 (3)  
Group III elective (3)  
SPCH 102 (3)

*Second year* (31 hours)

PEP 230 and 247 (7)  
PEP professional activities (5)  
PSYC 201 (4)  
BIOL 332 (3)  
LEM 301 (2)  
SSM 310 (2)  
HOEC 207 (3)  
EDFI 302 (3)  
Elective (2)

*Third year* (30 hours)

PEP 303, 350, 360, 362, and 433 (15)  
HED 313, 338, and 348 (9)  
ENG literature (3)  
Group IV elective (3)

*Fourth year* (30 hours)

PEP 392, 402, 412, and 497 (17)  
HED 409 (3)  
SSM 429 (2)  
EDFI 408 (2)  
EDAS 409 (3)  
Electives (3)

To be admitted officially into the Plan III program, the student must have:

1. matriculated in the College of Education;
2. completed SPCH 102 or ENG 112 with a grade of C or better;
3. completed at least two other general education courses;
4. attained a University accumulative grade point average of 2.0 or higher; and
5. completed PEP 247 with a grade of C or better.

To be eligible for student teaching the student must have met College of Education requirements for student teaching including:

1. completion of PEP 362, 392 and HED 348; and

2. filing an application for student teaching with PEP division during second semester of year prior to year of anticipated student teaching (in addition to filing application in Field Experiences office).

**Minor—physical education and recreation for special populations** (does not lead to certification) Open to all College of Education students.

A candidate must be interviewed by the area coordinator before declaring this minor.

EDSE 431, 433, and 442 (7)  
PEP 137, 138, and 241 (4)  
PEP 230 and 340, and/or 350 (7-10)  
PEP/RED 387/487 (2-4)  
Selected elective (2-3)

**Minor—elementary school** (Open only to students pursuing a teaching major in education, health education, music education, physical education, or special education who will receive either elementary teaching certification or kindergarten-twelfth grade certification.)

Before enrolling in any of the courses listed below, students should check with the faculty in the elementary school physical education program. Students completing the following sequence of courses may have their elementary or special teaching certificates validated for teaching elementary school physical education.

PEP 137, 138, 233, 238, 241, 332, 337, and 428 (18)  
PEP 230, 303, 340, and/or 350 (3-4)  
PEP 387, 433, 438; and/or 487 (2)  
PEP 492 or 497 (3)  
PEP 402 or EDFI 402 (2-3)

**Minor—secondary school** (grades seven through twelve special certification) (27 hours)

PEP 230, 303, 362, 412 (13)  
SSM 310 (2)  
PEP professional activities (9)  
Selected electives (3)

## Recreation

Students interested in the major must apply for admission, hold a 2.5 (C+) accumulative grade point average, and be interviewed by a recreation faculty member and the recreation curriculum committee. Transfer students with more than first-semester junior standing may be required to complete more than four semesters of full-time work to qualify for the degree. The four recreation options are listed below.

### Recreation administration

The recreation administration program prepares students for management, supervisory and leadership positions in park and recreation programs operated at the municipal, county, regional, state, federal, private and industrial levels.

The specialist in recreation administration should be well versed in:

1. personnel management, including hiring and bargaining practices and supervision of personnel;
2. financial management, including budgeting, fund raising, purchasing and inventory control;
3. facility planning and maintenance; and

4. handling all phases of public relations, including the preparation and interpretation of program material for mass media and "live" audiences, and the setting of policy and procedures for an agency and its staff.

*First year (30 hours)*

ENG 112 (3)  
SPCH 102 (3)  
PEG 100 (2)  
Science elective (5)  
RED 190 and 210 (5)  
Fine arts elective (2)  
Program area (3)  
Social science elective (3)  
RED 387 (1)  
SOC 101 (3)

*Second year (31 hours)*

PSYC 201 (4)  
Communication elective (3)  
Program area (4)  
Social science elective (2)  
L&EM 430 (3)  
ENG literature (3)  
Fine arts elective (2)  
MGMT elective (2)  
RED 487 (1)  
Science elective (4)  
Elective (3)

*Third year (33 hours)*

RED 384, 385, and 488 (16)  
PEP 433 (3)  
HED 313 (3)  
Program area (5)  
MGMT 305 or 360 (3)  
Elective (3)

*Fourth year (28 hours)*

MGMT electives (7)  
Social science elective (2)  
Fine arts elective (2)  
RED 482 and 483 (6)  
Program area (8)  
Elective (3)

### Recreation leadership

The recreation leadership program is designed to prepare students to provide leadership in planning and implementing recreation programs sponsored by schools, communities, and agencies in both urban and rural settings.

The specialist in recreation leadership should be well-versed in:

1. Planning, implementing and supervising recreation programs suitable to a variety of populations.
2. Conducting activities appropriate to the clientele in various recreation program areas.
3. Demonstrating a positive influence in group dynamics.
4. Utilizing community resources to enhance recreation programming.

*First year (30 hours)*

RED 190 and 210 (5)  
Science elective (3)  
PEG 100 (2)  
Program area (5)  
RED 387 (1)  
ENG 112 (3)  
SPCH 102 (3)  
SOC 101 (3)  
Fine arts elective (2)  
Elective (3)

*Second year (30 hours)*

HED 313 (3)  
PSYC 201 (4)  
Social science elective (3)  
RED 487 (1)  
Communication elective (3)  
Program area (4)  
BA 203 (3)  
Science elective (3)  
ENG literature (3)  
Elective (3)

*Third year (30 hours)*

RED 384, 385, and 488 (16)  
MGMT 305 or 360 (3)  
PEP 433 (3)  
L&EM 430 (3)  
Science elective (3)  
Social science elective (2)

*Fourth year (32 hours)*

RED 483 and 482 (6)  
Fine arts electives (4)  
Program area (7)  
Social science elective (3)  
MGMT elective (3)  
Communication elective (3)  
Electives (6)

### Outdoor recreation

The outdoor recreation program is designed to prepare students for leadership, supervisory, and management positions in organized camping, outdoor interpretation, park management, outdoor recreation, resource development, and outdoor recreation programming serving a variety of populations in various settings.

The specialist in outdoor recreation should be able to:

1. program and lead a variety of outdoor recreation activities appropriate to the environment and clientele;
2. teach skills related to outdoor pursuits;
3. understand and interpret the outdoor environment; and
4. design and manage man-made and natural outdoor recreation facilities and resources.

*First year (31 hours)*

ENG 112 (3)  
SOC 101 (3)  
RED 178 or 323, 190, and 210 (7)  
Science (3)  
RED 387 (1)  
Social science elective (2)  
BIOL 101 (3)  
PEG 100 (2)  
GEOG 127 (2)  
SPCH 102 (3)  
Program area (2)

*Second year (31 hours)*

Science elective (3)  
ENG literature (3)  
RED 294, 304, and 380 (10)  
HED 313 (3)  
RED 487 (1)  
PSYC 201 (4)  
Fine arts elective (2)  
Communication elective (3)  
Program area (2)

*Third year (30 hours)*

RED 384 and 488 (13)  
Fine arts elective (2)  
Program area (2)  
Social science elective (4)  
L&EM 430 (3)  
RED 433 (3)  
Electives (3)

*Fourth year (30 hours)*

MGMT 305 or 360 (3)  
RED 385, 482, and 483 (9)  
Fine arts elective (2)  
Science elective (5)  
MGMT elective (2)  
Electives (7)  
Communication elective (2)

### Recreation/theater

The recreation/theater emphasis is designed to prepare students for leadership in planning, organizing and implementing performing arts programs in professional, community and educational settings.

The specialist in recreation/theater should be able to:

1. communicate in a variety of media; and
2. plan, implement and supervise a variety of performing arts programs in a variety of settings.

*First year (30 hours)*

ENG 112 (3)  
PEG 100 (2)  
RED 190 and 210 (5)  
RED 387 (1)  
SOC 101 (3)  
Theater core (6)  
Science electives (5)  
Social science elective (2)  
SPCH 102 (3)

*Second year (28 hours)*

ENG literature (3)  
PSYC 201 (4)  
Theater core (6)  
Science electives (4)  
Fine arts electives (3)  
L&EM 430 (3)  
Social science elective (2)  
RED 487 (1)  
Elective (2)

*Third year (33 hours)*

MGMT 305 or 360 (3)  
RED 384 and 488 (13)  
Fine arts elective (3)  
HED 313 (3)  
PEP 433 (3)  
Theater core (3)  
Communication elective (2)  
RED 487 (1)  
Elective (2)

*Fourth year (31 hours)*

THEA core (9)  
RED 385, 482, and 483 (9)  
MGMT elective (2)  
Communication elective (3)  
Social science elective (2)  
Electives (6)

### Sport studies and management

In this program, one major with three options and two minors are available.

#### Major—Option 1, fitness and sport director

This program prepares students for leadership in planning and directing a variety of physical activities and sports, and physical fitness programs in the public and private sector. Students are prepared to assume positions in YMCA and YWCA centers, health clubs, racquet clubs, and aquatic centers.

Students are expected to become proficient in:

1. planning, directing, and supervising a variety of physical activities and fitness programs.
2. understanding the needs and abilities of persons of all ages seeking physical activity and fitness programs.
3. communicating with individuals and groups in activity settings.
4. understanding the business and legal aspects of programs in physical activities, physical fitness, and sports.

**Major requirements** (69-74 hours including 11 hours in physical activities)

HED 313 (3)  
 SSM 387 (1-5)  
 SSM 487 (1-5)  
 SSM 335, 421, 423, 489, and 490 (24)  
 PEP 412 or RED 384 (3)  
 PEP 230 (4)  
 PEP 360 or 443 (3)  
 Business electives (8)  
 IPCO electives (3)  
 SOC electives (3)  
 PSYC 306, HED 338, PSYC 405, PSYC 352 or PSYC 452 (3-4)

**Major—Option II, sports marketing and promotion information**

This program prepares students for sports marketing in the commercial sector, or for careers as sports writers, sports broadcasters, or sports information directors.

Students are expected to become proficient in:

1. understanding the needs of the public in selecting appropriate sports equipment;
2. selling, sales management and other marketing responsibilities; or
3. understanding the role of sports in the mass media;
4. communicating in a variety of media fields, with a specialization in one field; and
5. applying professional techniques in sports communication.

**Major requirements** (71-76 hours including 10 hours in physical activities)

SSM 387 (1-5)  
 SSM 487 (1-5)  
 SSM 328, 421, 425, 489, and 490 (24)  
 PEP 412 or RED 384 (3)  
 JOUR 103 and 300 (6)  
 JOUR electives (12)  
 MKT electives (9)  
 BTVF electives (3-4)

**Major—Option III, sport administration**

This program prepares students for leadership, supervision, and management in a variety of private or commercial physical activity, physical fitness, or sports organizations:

Students are expected to become proficient in:

1. hiring and supervising personnel and setting policies and procedures;
2. budgeting, fund raising, purchasing, and inventory control;
3. maintaining fitness, activity, and sports facilities;
4. providing programs appropriate to the clientele of the organization; and
5. interpreting the program and its needs through the mass media.

**Major requirements** (72-76 hours including 10 hours in physical activities)

SSM 387 (1-5)  
 SSM 487 (1-5)  
 SSM 328, 421, 429, 489, and 490 (23)  
 PEP 412 or RED 384 (3)  
 ACCT 325 (3)  
 FIN 300 (3)  
 MGMT 305 (3)  
 MKT 300 (3)  
 SOC 300, 317, 352 (9)  
 Business electives (11)

**Minor programs**

**Note:** The athletic coaching and athletic training minors are currently undergoing revision. The curricula listed below may change. Please see PATCO, 365 Education Office, or SSM chair, 201 Memorial Hall, for the updated requirements.

**Minor—Athletic Coaching** (may lead to Ohio Endorsement Certificate) (28-34 hours)

SSM 310, 328, 391 (7)  
 PEP 412 (3)  
 BIOL 331 (3)  
 SSM 429 or PEP 230 (2-4) and PEP 360 or PEP 443 (3)  
 Two from: SSM 306-A, B, C, D, E, F, G, H (2)  
 SSM 329 or SSM 333 (2-3)  
 SSM 331 or SSM 336 (2)  
 SSM 330, 332, or 334 (2-3)  
 PEP 230, PEP 350, PEP 360, PEP 443, SSM 425, or HED 313 (3-4)

**Minor—Athletic Training** (may lead to NATA Certification Examination) (21-23 hours and 800 hours clinical experience)

SSM 310, 328, 391, 410 (10)  
 HED 313 (3)  
 PEP 230 or 303 (3-4)  
 PEP 360 or 443 (3)  
 SSM 329, 330, 331, 332, 333, 334 or 336 (2-3)

# School of Technology

Jerry Streichler, Director, 204 Technology Building, 372-2436

The School of Technology offers the bachelor of science in education and the bachelor of science in technology. Those programs leading to the bachelor of science in education are appropriate for students interested in teaching at junior or senior high schools or at technical colleges. The programs leading to the bachelor of science in technology are designed for those planning to seek a position in business or industry.

## Bachelor of science in education

The School of Technology offers several programs in industrial education and technology which lead to the bachelor of science in education. These programs include several options and minors.

Professional education and general education requirements are specified on page 68.

## Industrial education and technology

214 Technology Building, 372-2436

**Major — Industrial arts**  
(meets special certification, kindergarten-twelfth grade)

*First year* (31 hours)

ENG 112 (3)  
SPCH 102 (3)  
DESN 104 (3)  
MFG 114 (3)  
EDFI 202 or EDCI 202 (2)  
TECH 121, 152, and 191 (9)  
PEG 100 (2)  
ENG literature (3)

Social science elective (3)

*Second year* (32-33 hours)

PHYS 201 or CHEM 115 by advisement (4-5)  
CS 101 (3)  
PSYC 201 (4)  
VCT 203 (3)  
EDFI 302 (3)  
DESN 204 (3)  
MFG 214 (3)  
CONS 235 (3)

IE 252 (3)  
MFG 113 (3)

*Third year* (30 hours)

ECON 200 or 202 (3)  
IE 352 and 462 (6)  
Electives (4)  
TECH concentration (14)  
ET 291 (3)

*Fourth year* (29 hours)

EDFI 402 and 408 (5)  
EDAS 409 (3)  
Student Teaching (10)  
IE 447 and 449 (6)  
Electives (5)

**Minor — Industrial arts** (meets high school certification) (33 hours)\*\*

One methods course by advisement (3-5)

Concentration (9)  
DESN 104 (3)  
MFG 113, 114, and 214 (9)  
TECH 191 (3)  
VCT 203 (3)  
CONS 235 (3)

**Major — vocational-industrial education**  
(meets high school certification)

*First year* (31 hours)

ENG 112 (3)  
SPCH 102 (3)  
DESN 104 (3)  
MFG 113 and 114 (6)  
TECH 121, 152, and 191 (9)  
EDCI 202 or EDFI 202 (2)  
PEG 100 (3)  
ENG literature (3)

*Second year* (29 hours)

PHYS 201 or CHEM 115 (4-5) by advisement  
VCT 203 (3)  
MFG 214 (3)  
CONS 235 (3)  
IE 252 (3)  
TECH 289 (3)  
ET 291 (3)  
PSYC 201 (4)  
CS 101 (3)

*Third year* (35 hours)

ECON 200 or 202 (3)  
EDFI 302 (3)  
IE 352 and TECH 389 (6)  
MGMT 305 (3)  
Technology concentration by advisement (17)  
EDFI 402 (3)

*Fourth year* (27 hours)

EDFI 408 (2)  
Student teaching (10)  
TECH 489 (3)  
IE 449 and 470 (6)  
EDAS 409 (3)  
IE 447 (3)

\*\*Upper-division students may arrange a minor program with 300- and 400-level courses.

**Major — technical college teaching**

(meets high school certification in industrial arts and qualifications for coordinator of cooperative education program)

*First year* (32 hours)

ENG 112 (3)  
SPCH 102 (3)  
PHYS 201 (5)  
PHYS 202 (5)

PEG 100 (2)

EDCI 202 or EDFI 202 (2)  
TECH 121, MATH 124, 131 or 232 (3-5)  
DESN 104 (3)  
TECH 152 and 191 (6)

*Second year* (37 hours)

MFG 113 and 114 (6)  
PSYC 201 (4)  
VCT 203 (3)  
DESN 204 and 243 (6)  
MFG 214 (3)  
CONS 235 (3)  
IE 252 (3)  
TECH 289 (3)  
ET 291 (3)  
CS 101 (3)

*Third year* (34 hours)

ENG literature (3)  
ECON 200 or 202 (3)  
Technology concentration by advisement (12)  
EDFI 302 (3)  
IE 352 and TECH 389 (6)  
Social science elective (4)  
EDFI 402 (3)

*Fourth year* (24 hours)

EDFI 408 (2)  
Student Teaching (10)  
EDAS 409 (3)  
TECH 489 and IE 449 (6)  
IE 447 (3)

**Major — Industrial arts/special needs vocational education** (meets high school certification in industrial arts and OWE/OWA certification)

*First year* (34 hours)

ENG 112 (3)  
PEG 100 (2)  
SPCH 102 (3)  
ENG literature (3)  
EDFI 202 or EDCI 202 (2)  
DESN 104 (3)  
MFG 113 and 114 (6)  
TECH 121, 152, and 191 (9)  
Social science elective (3)

*Second year* (32 hours)

PHYS 201 or CHEM 115 (4-5) by advisement  
VCT 203 (3)  
MFG 214 (3)  
CONS 235 (3)  
IE 252 (3)  
ET 291 (3)  
PSYC 201 (4)  
CS 101 or 103 (3)  
Science or MATH elective (3)  
Electives (3)

*Third year* (25 hours)

EDFI 302 (3)  
EDSE 431 and 433 (5)  
ECON 200 or 202 (3)  
EDCI 360 (2)  
BUSE 370 (3)  
IE 352 (3)  
Technology electives (2)  
Other elective (4)



*Fourth year* (31 hours)  
EDFI 402 and 408 (5)  
Student teaching (10)  
BUSE 462 and 470 (5)  
IE 447 and 449 (6)  
EDFI 412 (2)  
EDAS 409 (3)

### Major — junior and senior transfer students wishing to teach industrial-technical subjects

The student who presents an associate degree with technical specialization may receive full credit for the degree if it is technically compatible with one or more of the three options described below and was awarded by an institution approved by the Board of Regents or regionally accredited. These program options exist for persons who want to teach in the subject matter of their associate degree specialization.

#### Option A — Industrial arts teaching

A student who completes the work in the following outline is qualified to teach industrial arts in elementary, middle, and junior and senior high schools and receives an Ohio Provisional Special Certificate (kindergarten-twelfth grade) in the field.

*Third year* (34-35 hours)  
EDCI 202 or EDFI 202 (2)  
EDFI 302 (3)  
TECH 152 (3)  
IE 252 and 352 (6)  
VCT 203 or LEM 301 (2-3)  
MGMT 305 (3)  
Technology upper-division core by advisement (15)

*Fourth year* (31 hours)  
EDFI 402 and 408 (5)  
Student teaching (10)  
EDAS 409 (3)  
IE 449 and 447 (6)  
Technology electives (7)

#### Option B — vocational-industrial teaching

Depending upon the technical specialty and the nature of cooperative internships, students may be eligible to receive Ohio Provisional Certificates, i.e., a provisional certificate as a trade and industrial education teacher, or provisional certificates in other specific vocational areas.

*Third year* (31-32 hours)  
EDFI 302 (3)  
TECH 152, 289, and 389 (9)  
IE 252 and 352 (6)  
VCT 203 or LEM 301 (2-3)  
EDCI 202 or EDFI 202 (2)  
MGMT 305 (3)  
Technology electives by advisement (6)

*Fourth year* (38 hours)  
EDFI 402 and 408 (5)  
Student teaching (10)  
IE 447 (3)  
Science electives (4)  
EDAS 409 (3)  
TECH 389 and IE 449 (6)  
Technology electives by advisement (7)

#### Option C — technical college teaching

No certificates are required for teachers of technical subjects on the post-high school level. However, those interested in this professional work must complete, with some options, the course work listed in option B and upon completion of the bachelor's degree requirements are urged to immediately enroll in a Master of Education program that combines post-high school level

teaching, cooperative internships and formal course work.

#### Vocational work experience

See work experience, College of Education, page 75.

## Bachelor of science in technology

Bachelor of science in technology programs are designed for the student interested in the application of arts and sciences to the technologies of industry. Career opportunities exist in a growing area of service. Emphasis is placed on technical processes and personnel leadership with such employment classifications as: construction supervision, production management, technical sales, product design, quality control, technical service training, cost and systems analysis. These classifications are used in all segments of our enterprise system including the automotive, construction, pollution control, communications, glass and plastics industries. The University's geographical location is such that excellent cooperation exists with companies and government agencies requiring well-prepared individuals in technology.

A unique strength of this curriculum is its flexibility. During the second year of study, the student, in cooperation with the adviser, selects courses from the appropriate technology concentration, management, marketing, the physical sciences, communications and the humanities. Industrial experience is gained through the University-sponsored cooperative internship program which is required of all technology majors.

A candidate for the degree of bachelor of science in technology must meet the following requirements for graduation in addition to those listed on page 7.

1. Complete 40 or more semester hours of credit in courses numbered 300 or above.
2. Complete all requirements for a major including prerequisites, laboratory experiences and other regulations.

## Aerotechnology

214 Technology Building, 372-2436

The aerotechnology concentration is designed to prepare students for responsible positions in aviation. The work is organized around three sequences entitled airport operations, aircraft maintenance and flight technology. The student should choose two of these sequences for a program.

*First year* (33 hours)  
ENG 112 (3)  
SPCH 102 (3)  
GEOG 125 (3)  
PEG 100 (2)  
SOC 101 (3)  
MATH (8)  
DESN 104, MFG 113, TECH 152 (9)  
Elective (2)  
*Second year* (38 hours)  
ENG literature elective (3)  
PSYC 201 (4)  
MFG 114 (3)  
TECH 289 (3)  
CS 101 (3)

PHYS 201 or 202 (5)  
CONS 235 (3)  
ET 291 and TECH 191 (6)  
AERT 342 (3)  
Social science elective (3)  
Elective (2)

*Third year* (26 hours)  
MGMT 305 or 360 (3)  
TECH 389 (3)  
LEGS 301 (3)  
Aerotechnology sequences by advisement (15)  
Elective (2)

*Fourth year* (25 hours)  
TECH 489 (3)  
Business electives (6)  
Aerotechnology sequences by advisement (15)  
Elective (1)

## Construction technology

211 Technology Building, 372-2436

This curriculum is designed to prepare personnel for technical positions on the construction site and in the office. The three options offered recognize the special requirements of residential, general (including commercial, industrial, and civil) and mechanical/electrical construction. Each option requires course work in the areas of science and mathematics, general education, business, industrial technology, construction job control, design, and methods and materials. Supervised, cooperative internships with a construction-related employer are required.

#### General construction option

*First year* (34-36 hours)  
ENG 112 (3)  
SPCH 102 (3)  
SOC 101 (3)  
PEG 100 (2)  
MATH 124 and 125 (8) OR MATH 131 and 232 (10)  
MFG 113 and 114 (6)  
TECH 152 (3)  
DESN 104 (3)  
CONS 235 (3)

*Second year* (33 hours)  
ENG literature (3)  
Social science elective (3)  
PSYC 201 (4)  
PHYS 201 (5)  
CS 101 or 103 (3)  
TECH 191 (3)  
ET 291 (3)  
DESN 301 (3)  
TECH 289 (3)  
CONS 318 (3)

*Third year* (30 hours)  
Approved communications elective (3)  
MGMT 305 or 360 (3)  
LEGS 301 (3)  
TECH 389 (3)  
CONS 335 (3)  
CONS 307, 435 and 437 (9)  
DESN 243 (3)  
Elective (3)

*Fourth year* (25 hours)  
Approved BUS electives (6)  
CONS 439 and 440 (6)  
TECH 489 (3)  
CONS 406 or 490 (3)  
Elective (7)

**Mechanical/electrical option***First year (34-36 hours)*

ENG 112 (3)  
 SPCH 102 (3)  
 SOC 101 (3)  
 PEG 100 (2)  
 MATH 124 and 125 (8) OR MATH 131 and 232 (10)

MFG 113 and 114 (6)  
 TECH 152 (3)  
 DESN 104 (3)  
 CONS 235 (3)

*Second year (33 hours)*

ENG literature (3)  
 Social science elective (3)  
 PSYC 201 (4)  
 PHYS 201 (5)  
 CS 101 or 103 (3)  
 TECH 191 (3)  
 ET 291 (3)  
 DESN 301 (3)  
 TECH 289 (3)  
 ET 347 (3)

*Third year (30 hours)*

Approved communication elective (3)  
 MGMT 305 or 360 (3)  
 LEGS 301 (3)  
 TECH 389 (3)  
 CONS 335 (3)  
 CONS 337 (3)  
 ET 357 (3)  
 ENVT 421 (3)  
 Electives (6)

*Fourth year (25 hours)*

Approved business electives (6)  
 CONS 439 and 440 (6)  
 TECH 489 (3)  
 DESN 307, 406, or 490 (3)  
 Electives (7)

**Residential option***First year (34-36 hours)*

ENG 112 (3)  
 SPCH 102 (3)  
 SOC 101 (3)  
 PEG 100 (2)  
 MATH 124 and 125 (8) OR MATH 131 and 232 (10)

MFG 113 and 114 (6)  
 TECH 152 (3)  
 DESN 104 (3)  
 CONS 235 (3)

*Second year (33 hours)*

ENG literature (3)  
 Social science elective (3)  
 PSYC 201 (4)  
 PHYS 201 (5)  
 CS 101 or 103 (3)  
 TECH 191 (3)  
 ET 291 (3)  
 DESN 301 (3)  
 TECH 289 (3)  
 CONS 318 (3)

*Third year (30 hours)*

Approved communication elective (3)  
 MGMT 305 or 360 (3)  
 LEGS 301 (3)  
 TECH 389 (3)  
 CONS 335 (3)  
 CONS 306 and 307 (6)  
 MFG 323 (3)  
 CONS 406 (3)  
 Elective (3)

*Fourth year (25 hours)*

Approved business electives (6)  
 CONS 439 and 440 (6)  
 TECH 489 (3)  
 CONS 337, 490 OR ET 357 (3)  
 Electives (7)

**Design Technology**

218 Technology Building, 372-2436

This program involves the efficient application of arts, sciences, technology and business to the process of design in industry. The arts involve the development of communicative working drawings, renderings and models. The scientific knowledge required includes a basic understanding of mathematics, physics and computer science. The technology of manufacturing and construction and selected courses in business complement and complete the design program. An important component of this technology curriculum is a cooperative internship in a design or design-related position in industry which is supervised by University faculty.

**Architectural/environmental design option**

This technology prepares students to deal with the architectural designs associated with the exterior and interior of such buildings as residences, schools and municipal projects.

*First year (35 hours)*

ENG 112 (3)  
 SOC 101 (3)  
 TECH 152 (3)  
 ART 102 and 103 (6)

\*Arch./Env. concentration (3)  
 PEG 100 (2)  
 SPCH 102 (3)  
 DESN 104 (3)  
 MFG 113 (3)  
 CS 101 or 103 (3)  
 Elective (3)

*Second year (31 hours)*

ENG literature (3)  
 PSYC 201 (4)  
 MFG 114 (3)  
 TECH 289 (3)

\*Arch./Env. concentration (3)  
 Approved MATH/science (9)  
 DESN 204 (3)  
 Approved business elective (3)

*Third year (30 hours)*

TECH 389 (3)  
 DESN 243 (3)

\*Technical electives (6)  
 ENG 488 (3)  
 Approved business elective (3)  
 \*Arch./Env. concentration (9)  
 Electives (3)

*Fourth year (26 hours)*

TECH 489 (3)

\*Arch./Env. concentration (6)  
 \*Technical electives (6)  
 Business electives (6)  
 Electives (5)

\*Courses for the architectural/environmental design concentration and technical electives are derived from the following offerings:

**Arch./Env. required courses**

CONS 235, 307, 439  
 DESN 301, 450, 404  
 ART 213, 313

**Technical electives**

DESN 305 and 436

GEOG 321  
 VCT 203  
 HOEC 319  
 TECH 489  
 ART 112 (3)

Other TECH/ART courses by advisement.

**Mechanical design option**

This technology prepares the student to design tools and machines for manufacturing processes, and to deal with the practical aspects of generation and transmission of heat and fluid power.

*First year (29 hours)*

ENG 112 (3)  
 SOC 101 (3)  
 ART 102 and 103 (6)  
 MFG 113 (3)  
 TECH 152 (3)  
 PEG 100 (2)  
 SPCH 102 (3)  
 DESN 104 (3)  
 Electives (3)

*Second year (26 hours)*

ENG literature elective (3)  
 PSYC 201 (4)  
 MFG 114 (3)  
 TECH 289 (3)

\*\*Mechanical design concentration (3)  
 DESN 204 (3)

Approved MATH/science sequence (7)

*Third year (36 hours)*

TECH 389 (3)  
 PHYS 201 and 202 (10)  
 DESN 243 (3)

\*\*Mechanical design concentration (6)  
 ENG 488 (3)

CS 101 or 103 (3)  
 Approved business elective (6)  
 Elective (2)

*Fourth year (31 hours)*

TECH 489 (3)

\*\*Mechanical design concentration (15)  
 \*\*Approved technical electives (10)

Electives (3)

\*\*Courses for the mechanical design concentration and technical electives are derived from the following offerings:

**Mechanical design required courses**

DESN 304, 455 and 404  
 ET 347 and 441  
 TECH 323 and 223  
 MFG 338 and 426

**Technical electives by advisement**

MFG 214, 311, ET 291  
 TECH 489 and 391, CONS 337 and DESN 490  
 Other technical courses by advisement

**Product design specialization**

This technology involves the design of products with the aid of technology and art. The program prepares the student to develop creative solutions to three dimensional problems involving aesthetics, materials, manufacturing processes and human factors. This is a cooperative program between the School of Technology and the School of Art.

*First year (34 hours)*

ENG 112 (3)  
 PEG 100 (2)  
 ART 102 and 103 (6)  
 MFG 113 (3)  
 TECH 152 (3)  
 SOC 101 (3)  
 SPCH 102 (3)  
 CS 101 or 103 (3)  
 DESN 104 (3)  
 Electives (5)

*Second year (31 hours)*

ENG literature elective (3)  
 PSYC 201 (4)  
 DESN 204 (3)

Approved business elective (3)  
 \*Product design specialization (3)

MFG 114 (3)  
 TECH 289 (3)

Approved MATH/science (9)

*Third year (27 hours)*

TECH 389 (3)  
 DESN 243 (3)  
 \*Product design specialization (9)  
 \*Technical electives (6)  
 ENG 488 (3)  
 Approved business elective (3)

*Fourth year (30 hours)*

TECH 489 (3)  
 \*Product design specialization (9)  
 Technical electives (6)  
 Business electives (6)  
 Electives (6)

\*Courses for the product design specialization and technical electives are derived from the following offerings:

**Product design required courses**

ART 211, 212, 313, 419  
 ART 145 or 146  
 DESN 304 and 404

**Technical electives**

ART 112, 416 and/or 418  
 DESN 404, 301, MFG 214  
 TECH and ART courses by advisement

**Other programs**

Three other design specializations are available: graphic design and environmental design in the School of Art and interior design in the Department of Home Economics.

**Electronic technology**

210 Technology Building, 372-2436

The program in electronic technology is a comprehensive study of the diverse areas of electronics (circuits, devices, computer interfacing and systems) with theories from physics, mathematics and computer science. This knowledge is blended with industrial technology, management, business and social sciences to develop flexibility in employment. An important component of this technology curriculum is a cooperative internship program in industry which is supervised by University faculty.

*First year (36 hours)*

ENG 112 (3)  
 SOC 101 (3)  
 Approved math electives (7-8)  
 PEG 100 (2)  
 SPCH 102 (3)  
 DESN 104 (3)  
 MFG 113 (3)  
 TECH 152 and 191 (6)  
 ET 291 (3)  
 Elective (3)

*Second year (28 hours)*

CS 101 (3)  
 ECON 200 (3)  
 Electronic concentration (6)  
 ENG literature (3)  
 PSYC 201 (4)  
 MFG 114 (3)  
 TECH 289 (3)  
 CONS 235 (3)

*Third year (23 hours)*

TECH 389 (3)  
 PHYS 201 (5)  
 Electronic concentration (12)  
 Approved business elective (3)

*Fourth year (35 hours)*

TECH 489 (3)  
 Technical elective (3)  
 Approved business electives (9)  
 IPCO 306 or 307 (3)  
 Electronic concentration (7)  
 Other electives (10)

**Industrial environment technology**

210 Technology Building, 372-2436

This program consists of studies in industrial and engineering technology, business and the sciences. Technical problem solving in manufacturing, instrumentation, and process control gives students an appreciation of industrial production practices, while studies in business emphasize consideration of the organizational, legal and financial principles involved. The sciences, primarily chemistry and biology, offer students the opportunity to develop an in-depth understanding of the chemical nature of pollutants and their effect on the ecological system. An important component of this technology curriculum is a cooperative internship program in industry which is supervised by University personnel.

*First year (39 hours)*

ENG 112 (3)  
 BIOL 204 (5)  
 CHEM 125 and 126 (10)  
 DESN 104 (3)  
 TECH 152 (3)  
 SPCH 102 (3)  
 PEG 100 (2)  
 MATH 124 or 125 (4-5)  
 Electives (6)

*Second year (36 hours)*

CS 101 or 103 (3)  
 BIOL 205 (5)  
 MFG 113 and 114 (6)  
 TECH 191 (3)  
 CHEM 306 (4)  
 PSYC 201 (4)  
 MATH 125 or 232 (4-5)  
 TECH 121 or MATH 124 (3-4)  
 ET 291 (3)  
 Elective (3)

*Third year (26 hours)*

MGMT 305 (3)  
 MFG 214 (3)  
 CONS 235 (3)  
 MGMT 331 and LEGS 431 (6)  
 TECH 289 (3)  
 TECH 391 and 454 (6)  
 Elective (2)

*Fourth year (21 hours)*

LEGS 301 (3)  
 DESN 243, 436; CONS 307, 335; MFG 329, 361, 459; ET 347, 348, 441; ENVR 490 (18)

**Industrial training technology**

217 Technology Building, 372-2436

Industrial trainer preparation is an interdisciplinary program of studies consisting of blocks of course work in technology, instruction technology, related social sciences and management. The combination of practical/laboratory studies, applied disciplines and actual work experience (cooperative internships) will enable the graduate to function confidently in the industrial training role.

*First year (33 hours)*

ENG 112 (3)  
 SPCH 102 (3)  
 MATH elective (by advisement) (3)  
 PEG 100 (2)  
 ENG literature (3)  
 DESN 104 (3)

MFG 113 and 114 (6)  
 TECH 152 and 191 (6)  
 Other electives (4)

*Second year (35 hours)*

PHYS 201 or CHEM 115 (by advisement) (4-5)  
 ECON 200 or 202 (3)  
 PSYC 201 (4)  
 CS 101 or 103 (3)  
 VCT 203 (3)  
 DESN 204 (3)  
 MFG 214 (3)  
 CONS 235 (3)  
 IE 252 (3)  
 TECH 289 (3)  
 ET 291 (3)

*Third year (30 hours)*

EDFI 302 (3)  
 ENG 488 (3)  
 IE 352 (3)  
 VCT 282 and 466 (6)  
 MGMT 360 (3)  
 Electives in PSYC and/or SOC by advisement (9)  
 TECH 389 (3)

*Fourth year (24 hours)*

EDFI 402 (3)  
 Electives in MGMT (by advisement) (9)  
 L&EM 435 and 455 (6)  
 TECH 489 (3)  
 IE 428 (3)

**Manufacturing technology**

210 Technology Building, 372-2436

This field of study draws upon the principles of mathematics and the physical sciences and applies them to industrial problems related to manufacturing systems. An understanding of the computer and its use in designing, monitoring and controlling manufacturing processes is also an important part of this program. In addition to these technical studies, the curriculum offers excellent opportunities for studies in management and industrial psychology. An important component of this technology curriculum is a cooperative internship program in industry which is University supervised.

*First year (35-36 hours)*

ENG 112 (3)  
 SOC 101 (3)  
 SPCH 102 (3)  
 DESN 104 (3)  
 MFG 113 and 114 (6)  
 TECH 152 and 191 (6)  
 ENG literature elective (3)  
 TECH 121, MATH 124 or 131 (3-4)  
 PEG 100 (2)  
 MATH 115 (3)

*Second year (32-33 hours)*

CS 101 or CS 103 (3)  
 PHYS 201 and 202 (10)  
 DESN 204 (3)  
 MFG 214 (3)  
 MATH 124, 125, or 231 (4-5)  
 TECH 289 (3)  
 ET 291 (3)  
 ECON 200 (3)

*Third year (30 hours)*

IPCO 306 or 307 (3)  
 TECH 389 (3)  
 VCT 203 (3)  
 CONS 235 (3)  
 DESN 243 (3)  
 MFG 338 (3)  
 Social science elective (3)  
 Business electives (6)  
 Manufacturing electives (3)

Fourth year (30 hours)  
 ENG 488 (3)  
 MFG 426 and 427 (6)  
 Other electives (3)  
 Business electives (6)  
 Manufacturing electives (12)

## Visual communication technology

215 Technology Building, 372-2436

The visual communication technology program prepares students for media production, training, sales and management positions within the communication industry. These careers require general and specific technical competencies in design, printing, television, film, display and photography. With help from an adviser, each student selects in the junior year an occupational cluster for specialization from 21 possible career options. The total program proceeds through a framework of analyzing and applying the many methods of creating, reproducing and distributing visual communication materials. Students ultimately combine concepts, theories and principles with critical and creative-technical problem solving abilities to generate solutions for visual communication problems.

By developing the ability to solve communication problems, students will be prepared for such technological production and management positions as advertising production, graphic design, commercial and industrial photography, motion picture and television graphics, multimedia production, printing and publishing plant control and similar occupations.

Courses in occupational clusters are chosen individually by each student with the assistance of an adviser. The occupational clusters are display production, display marketing/sales, display management, photographic production, photographic marketing/sales, photographic management, photographic training, print production, print marketing/sales, print management, print training, film production, film marketing/sales, film management, film training, television production, television marketing/sales, television management, television training, industrial media specialist, visual communications generalist.

Students who have obtained an associate degree in an allied communication area may pursue a bachelor's degree in visual communication technology by enrolling in the curriculum for transfer students.

First year (29 hours)  
 Science requirement (6)  
 SPCH 102 (3)  
 TECH 152 (3)  
 VCT 203 (3)  
 PEG 100 (2)  
 ENG 112 (3)  
 SOC 101 (3)  
 TECH 121, MATH 124 or 131 (3-5)  
 Elective (3)

Second year (34 hours)  
 PSYC 201 (4)  
 ECON 200 (3)  
 VCT 208 and 282 (6)  
 CS 101 or 103 (3)  
 ART 211 (3)

RTVF 263 and 264 (6)  
 TECH 289 (3)  
 Electives (6)  
 Third year (34 hours)  
 MGMT 305 (3)  
 TECH 389 (3)  
 Visual communication occupational cluster (13)  
 MKT 300 (3)  
 ART 414 (3)  
 VCT 467 (3)  
 Electives (6)  
 Fourth year (25 hours)  
 TECH 489 (3)  
 Visual communication occupational cluster (14)  
 Electives (8)

## Curriculum for transfer students in technology programs

208 Technology Building, 372-2436

For students who have earned an associate degree in an engineering or related technology from a regionally or Ohio Board of Regents accredited post-secondary institution, the upper-division program (junior and senior years) is designed by the student and an adviser in one of the technology programs offered.

At least 65 hours must be earned at Bowling Green. After analysis of the student's credentials, appropriate courses are selected by the student and adviser to best fulfill career objectives.

The upper-division program and the associate degree combined should result in a distribution of courses in fields with minimum quarter credit hours as follows:

**Communication** (ENG, SPCH, IPCO, RTVF, literature, technical report writing)  
 11 hours required for all technology programs

**Social science** (GEOG, HIST, ECON, SOC, PSYC, POLS, LEGS)  
 14 hours required for all technology programs

**Science and mathematics**  
 17 hours required in all technology programs except environment technology and visual communication technology; 36 hours required for environment and 12 hours for visual communication.

**Business** (MGMT, MKT, ECON, LEGS, ACCT, STAT, MIS, OPRE)  
 14 hours required in all technology programs except visual communication technology which requires only six.

**Technology core**  
 21 hours required in design, electronics, and manufacturing technology; 22 hours in visual communication technology; 18 hours in construction technology; and 27 hours in environmental technology.

**Technology concentration** (11 hours in this area must be taken at Bowling Green)  
 29 hours required in design, electronics, and manufacturing technology; 32 hours in construction technology; 36 hours in visual communication technology; and 17 hours in environmental technology.

**Cooperative internship**  
 9 hours required for all technology programs

**Electives**  
 18 hours required for construction, design, electronics, and manufacturing technology; 12 hours in environment technology; and 24 hours in visual communication technology.



# College of Health and Community Services

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Edward E. Morgan Jr., associate dean, 102 Health Center, 372-0242

Judy C. Price, director of program advisement, 102 Health Center, 372-0242

Applied Microbiology, William Hann, Ph.D., director, 516 Life Sciences Building, 372-2833

Art Therapy, Dvora Krueger, M.A., A.T.R., director, 107 Fine Arts Building, 372-2786

Child and Family Community Services, Sara Derrick, Ph.D., director, 206 Johnston Hall, 372-2026

Criminal Justice, Gerald Rigby, Ph.D., director, 120A Health Center, 372-2326

Dietetics, Millicent deOliveira, M.S., R.D., director, 206 Johnston Hall, 372-2026

Environmental Health, Judy Price, M.A., acting director, 102 Health Center, 372-0242

Gerontology, John Hiltner, Ph.D., director, 120A Health Center, 372-2326

Medical Record Administration, Janis Fisher, B.S., R.R.A., director, 120A Health Center, 372-2326

Medical Technology, John Kennedy, Ph.D., director, 504C Life Sciences Building, 372-0109

Parasitology and Medical Entomology, Lee Rockett, Ph.D., director, 303 Life Sciences Building, 372-2834

Physical Therapy, Robert Livengood, M.S., L.P.T., director, Medical College of Ohio, 381-3518 or Lee Meserve, Ph.D., coordinator, 503B Life Sciences Building, 372-0361

Rehabilitation Counseling, Robert MacGuffie, Ph.D., director, 422 Education, 372-0151

Speech Pathology and Audiology, Melvin Hyman, Ph.D., director, 338B South Hall, 372-2515

Social Work, Evan Bertsche, M.A., director, 220 Williams, 372-2441

School of Nursing, Grace Chickadonz, Ph.D., R.N., director, Medical College of Ohio, 381-3418 or Ardith Sudduth, M.S., R.N., coordinator, 102 Health Center, 372-0242

## Philosophy

Human dignity, health and safety are three of an individual's most prized possessions and as such should be protected. The professional programs offered in this college were founded in response to the needs of individuals. The education of students in this college embraces knowledge from diverse

sources, including a liberal general education, as well as generating bodies of knowledge in the professional sphere. Students graduating from this college should be prepared to examine their roles and modify practice in response to new information. They should be able to act as catalysts in initiating and implementing new patterns of practice aimed at bettering the human condition. For these reasons, education is directed toward inspiring and developing problem-solving and creative capabilities in students. Additionally, preprofessional and professional education must be regarded as preparation for a lifetime of continued learning which enhances the process of self-actualization for the individual.

## Academic advising

Each student is assigned a faculty adviser within the selected program. In addition, career guidance and advising services are provided for students in the college office located in the Health Center. The responsibility for meeting graduation requirements lies with the student and not with the adviser, the program director or the dean. Reading and following the information in the *Undergraduate Catalog* is essential. The office of the dean requires that each student request a degree audit when 90 credits have been accumulated.

## Degrees offered

The degrees awarded by the College of Health and Community Services and its School of Nursing are:

Bachelor of science in applied microbiology  
 Bachelor of science in art therapy  
 Bachelor of science in child and family community services

Bachelor of science in criminal justice  
 Bachelor of science in dietetics  
 Bachelor of science in environmental health  
 Bachelor of science in gerontology  
 Bachelor of science in medical record administration

Bachelor of science in medical technology  
 Bachelor of science in nursing  
 Bachelor of science in parasitology and medical entomology

Bachelor of science in physical therapy  
 Bachelor of science in social work  
 Bachelor of Science in speech pathology and audiology

A candidate for any degree in the College of Health and Community Services or School of Nursing must complete the general requirements for graduation listed on page 7. In addition, all students must complete all major requirements. Required internships, field work and clinical practicum completed during the last 30 hours will be considered in residence even though taken off campus.

## General education requirements

Each program major insures a breadth of knowledge acquired through specific general education requirements. Each student is required to take a minimum of 27 semester hours in general education. General education requirements should be completed as early as possible.

### Group I: Communications

Six semester hours required. Any courses in SPCH and/or IPCO; \*ENG 207, 208, 308, 488; PHIL 103. Courses in a foreign language will satisfy the communications requirement, but cultural series courses will not be accepted.

### Group II: Mathematics and natural sciences

Six semester hours required. Any courses in BIOL, CHEM, GEOL, MATH, PHYS; \*GEOG 125, 126, 127, 213, 404, 471; PHIL 303.

### Group III: Social sciences

Six semester hours required. Any courses in ECON, GEOG (except 125, 126, 127, 213, 404, 471), HIST, POLS, PSYC, SOC or ETHN 101, 210, 304, 410.

### Group IV: Arts and humanities

Six semester hours required. Any courses in POPC, THEA, AMST; ART 101, any courses in art history; ENG literature; music theory and appreciation; PHIL (except PHIL 303); foreign language cultural series courses.

### Group V: Applied arts and sciences

Three semester hours required. Any courses in AERO, AERT, BA, BUSE, CONS, CS, DESN, ENVR, IET, GERO, HOEC, JOUR, LEGS, MEDT, MFG, MGMT, MKT, MRA, NURS, RTVF, SOWK, STAT, VCT; \*ACCT 221, 222, 325; any ART studio courses; \*EDFI 302, 342 (others by permission); \*EDSE 431, 451, 453 (others by permission);



\*HED 109, 209, 313, 314, 338, 446; LEM 428, 430, 431, 434; MATH 115; \*MIS 200, 475; any music composition and/or performance courses; \*PEP 230, 303, 322, 443; PHIL 103; \*PSYC 270, 370; SOC 369; SSM 310.

\*Only the courses specified meet requirements; they need not be taken in the order listed.

### Grading option

A student may request the S/U grading option for as many as 24 credits in a baccalaureate degree program, in addition to courses universally graded on an S/U basis. (Please refer to grading system for University requirements regarding S/U standards.)

Students in the College of Health and Community Services may exercise the S/U grade option only for electives, general education group requirements or practicums. Directors may limit further the use of the S/U option in their programs.

## Degree programs

In most cases, the sequence of courses listed below must be completed in order to meet the requirements for the major or for professional certification. Upon the recommendation of the program director, and with final approval resting with the dean of the College of Health and Community Services, some courses may be substituted.

### Applied microbiology

516 Life Sciences Building, 372-2833 or 372-0109

Microbiologists are employed by medical or clinical laboratories for detection and diagnosis of disease. Public health laboratories use microbiological procedures in testing water supplies for potability and in quantifying incidences of communicable diseases.

Microbiologists work as public health officials in consulting infected individuals to control the spread of diseases. They also work in the food, dairy or liquor industries to maintain product quality, and in pharmaceutical companies, which ferment microbes to produce antibiotics. Sanitation laboratories employ microbiologists for the safe treatment of sewage.

Additionally, the small size and simple organization of microorganisms makes them the most effective subjects for studying life at its most fundamental level. Research with microbes has made increasingly important contributions to the understanding of genetics and cancer. Genetic engineering, utilizing microorganisms, is developing into a major industry.

The course work required of students will allow them, after a year of employment, to take the qualifying examination of the National Registry of Microbiologists of the American Academy of Microbiology, or the microbiology specialization of the American Society of Clinical Pathology.

An individual with the bachelor of science in applied microbiology may pursue advanced degrees in medical schools or universities to specialize in medical microbiology, clinical microbiology, protozoology,

virology, microbial genetics, microbial physiology, immunology, food science or other areas of microbiology. A few additional courses will satisfy the requirements for entrance into medical, dental or veterinary schools.

### Suggested program

#### First year

BIOL at introductory level, according to student goals (5)

MATH 131 or equivalent (5)

PEG 100 (2)

CHEM 125, 126 (10) or CHEM 135, 136 (10)

ENG 112 or equivalent (3-6)

Electives and general education requirements (2-6)

#### Second year

CHEM 201, 306 (7) or CHEM 201, 341 (8)

BIOL 313, 443 (8)

BIOL electives and general education requirements (15-21)

#### Third year

CHEM 308, 309 (4) or CHEM 342, 308, 309 (9) or

CHEM 445, 446 (4)

BIOL 426, 421 (8)

BIOL 405, 407, 409, 410, 439, 424, 470 (6-8)

Program seminars (2)

General education requirements (8-16)

#### Fourth year

CHEM 445 (4)

BIOL 401, 405, 407, 409, 410, 424 or 470 (6-8)

PHYS 201, 202 (10)

Program seminars (2)

General education requirements and electives (8-12)

### Other programs

Microbiology is also offered by the Department of Biological Sciences as a specialization under the biology major for the College of Arts and Sciences.

## Art therapy

107 Fine Arts, 372-2786

A bachelor of science in art therapy is available through the College of Health and Community Services in cooperation with the School of Art. The program offers studio art courses, art therapy methodology requirements, supportive core requirements in the behavioral and social sciences and a cognate or specialization (psychology, special education, gerontology, criminal justice or social work).

The interdisciplinary nature of this pre-professional program prepares graduates for entry into activities or recreational programs in special schools, hospitals, institutions and residential centers. The program fulfills requirements for entry into master's degree training programs in art therapy approved by the American Art Therapy Association.

The role of the art therapist as a member of the health care team is gaining wide acceptance. In recent years, an increasing variety of clients have been served by art therapists. Changing practices in the field of mental health have created an even broader definition of the art therapy specialization. Art therapists may work with programs in educational institutions, orphanages, hospitals, community mental health and mental retardation centers, nursing homes and other social service agencies.

### Suggested program

#### First year

ENG 111 and/or 112 (6)

PEG 100 (2)

ART 102, 103, 112 (9)

PSYC 201 (4)

SOC 101 (3)

SOWK 110 (2)

General education requirements (6)

#### Second year

ART 145 or 146, 205, 230, 252, 261 (14)

EDFI 302 (3)

EDSE 431 (3)

General education requirements (6)

Cognate or elective (3)

#### Third year

ART 263, 330, 331, 371, 373, 456 (18)

PSYC 403, 405 (6)

Cognate (6)

#### Fourth year

ART 488 (10)

General electives, art electives or cognate (21)

Students may continue in this program only after taking ART 230 and receiving approval from the director of the art therapy program.

This program is subject to revision and may be modified to meet individual student needs

## Child and family community services

309 Johnston Hall, 372-2026

This is a multidisciplinary program for students who wish to concentrate in either children's or family services. Students may complete both areas of specialization by reducing the number of free electives. In both areas emphasis is placed upon developing personal competencies necessary to provide human services for persons of all ages. Internships in a variety of agencies such as preschools, family courts, mental health and mental retardation clinics and hospitals complement the program.

Specific courses of study are available for students who wish to pursue careers working with entire families, adolescents, infants and children or other specific groups of individuals. In addition, a cognate in child life is available for students who wish to work with hospitalized children, adolescents and their families.

The child and family community services program also serves as a foundation for graduate work in related behavioral sciences and as a third and fourth year program for graduates of two-year colleges with a major in related disciplines. Graduates of this program receive a bachelor of science in child and family community services degree.

### Children's services option

#### Suggested program

##### First year

ENG 112 or equivalent (3-6)

ART 101 (3)

HOEC 105, 120 and 205 (9)

SPCH 102 (3)

PEG 100 (2)

BIOL 101 or 104 (3) (4)

SOC 101 (4)

General education requirements and electives

**Second year**

PSYC 201 (4)  
 HOEC 207, 224, 320, 321, 322 and 328 (18)  
 HOEC 107 or 480 (3)  
 HOEC 389 (1-5)  
 General education requirements  
 Recommended professional electives

**Third year**

HOEC 302 and 435 (6)  
 ENG 342 (3)  
 IPCO 203 or 306 (4)  
 HED 313 (4) or Multimedia First Aid Certificate  
 Electives

**Fourth year**

HOEC 407, 421, 422 and 423 (12)  
 HOEC 489 (5-12)  
 LEM 441 (3)  
 Recommended professional electives

This program may be modified to meet student needs and interests.

**Family services option****Suggested program****First year**

ENG 112 or equivalent (3-6)  
 HOEC 105, 120 and 205 (9)  
 PEG 100 (2)  
 BIOL 104 (4)  
 SOC 101 (3)  
 General education requirements and electives

**Second year**

PSYC 201 (4)  
 HOEC 328 (3)  
 HOEC 405 (4)  
 General education requirements and electives

**Third year**

HOEC 302 and 426 (6)  
 PSYC 307 and 405 (6)  
 HOEC 389 (1-5)  
 Professional electives

**Fourth year**

HOEC 407 and 427 (6)  
 HOEC 489 (5-12)  
 PSYC 440 (1-4)  
 Professional electives

This program may be modified to meet student needs.

**Other programs**

Programs in related areas are offered through the Department of Home Economics in the College of Education.

**Criminal justice**

120-A Health Center, 372-2326

In preparation for careers in law enforcement, investigative units, penal institutions, probation and parole work and other agencies in the criminal justice system, the criminal justice program integrates course work and interaction with professionals in various disciplines. The graduate of the program receives a bachelor of science in criminal justice degree. Possible options in criminal justice are law enforcement and corrections. A student may also elect a dual specialization; the student receives a single degree in criminal justice but would meet the requirements for both law enforcement and corrections.

Students in the law enforcement option may begin their studies at any of several technical or community colleges with which Bowling Green has formal agreements. Cooperative programs have been developed

with Owens Technical College, Lima Technical College, Toledo Community Technical College, Lorain County Community College and North Central Technical College. Completion of a two-year associate degree in law enforcement may allow the student to enter the baccalaureate program in criminal justice with junior standing. Students may also choose to complete the entire four-year degree program at Bowling Green.

Students in both law enforcement and corrections must complete, preferably during the senior year, an internship in an appropriate agency. The student is responsible for developing the internship site. However, all internships are subject to the approval and supervision of the program faculty. The student choosing the dual specialization will be required to complete two internships, one in each specialization.

**Law enforcement option****University and general education group requirements**

ENG 112 or equivalent  
 PEG 100

At least 6 hours in each group of the general education requirements (strongly recommended in group IV: SOC 101, PSYC 201)

**Core Courses (59 hours)**

CRJU 210, 220, 230, 240, 310 and 480 (18 hours)  
 POLS 201, 221, 417 and 418  
 POLS 419 or PHIL 318  
 PSYC 454  
 PSYC 405  
 SOC 316, 341, 342, 441 and 443  
 SOC 301 or PSYC 311  
 SOC 369 or PSYC 270

**Internship (12 hours)****Core electives (15 hours)**

These courses should be selected carefully to supplement the general education and core requirements. Core electives require approval by the program faculty and shall be restricted to 300-400 level courses, except for CS 100 and transfer credit for courses prior to admission to Bowling Green. Any course in which a grade of D has been recorded will not be accepted in the core or core electives. The following are strongly recommended:

ACCT 325  
 CS 100  
 PHIL 327  
 POLS 332, 347, 430 and 432  
 PSYC 305

**Suggested program****First year**

CRJU 210  
 ENG 112 or equivalent  
 POLS 201  
 PEG 100  
 General education courses (groups I, III, IV, V and VI)  
 Group IV courses (SOC 101 and PSYC 201 strongly recommended)

**Second year**

CRJU 230 and 240  
 Completion of general education requirements

**Third year**

CRJU 220 and CRJU 310  
 Completion of core courses  
 Core electives

**Fourth year**

CRJU 480  
 CRJU 491—Internship (12)  
 Completion of core courses and core electives

**Corrections option****University and general education requirements (same as law enforcement option)****Core courses (59 hours)**

CRJU 210 and CRJU 480  
 PHIL 327  
 POLS 201, 221, 330, 347, 417 and 418  
 PSYC 304, 405 and 454  
 PSYC 270 or SOC 369  
 SOC 301 or PSYC 311  
 SOC 316, 341, 342, 352, 441 and 442

**Internship (12 hours)****Core electives (15 hours)**

These courses supplement the general education and core requirements. Core electives require approval by the program faculty and shall be restricted to 300-400 level courses, except for CS 100 and transfer credit for courses completed prior to admission to Bowling Green. Any course in which a grade of D has been recorded will not be accepted in the core or core electives. The following are strongly recommended:

ACCT 325  
 CS 100  
 HOEC 408 (check prerequisites)  
 PHIL 318  
 POLS 332, 422, 430 and 432

Consideration should also be given to selection of courses from the law enforcement core major.

**Suggested program****First year**

ENG 112 or equivalent  
 POLS 201  
 CRJU 210  
 PEG 100  
 General education courses (groups I, III, IV, V and VI)

Group IV courses (SOC 101 and PSYC 201 strongly recommended)

**Second year**

Completion of general education requirements  
 Core courses  
 Core electives

**Third year**

Core courses  
 Core electives

**Fourth year**

Completion of core courses and core electives  
 CRJU 480  
 CRJU 491—Internship (12)

**Dietetics**

This professional program leads to membership and registration in the American Dietetic Association. The requirements for registration are an internship or preplanned work experience in an accredited institution, and the passing of the national examination upon completion of either of these professional programs. A declaration of intent to pursue the dietetics program should be filed in the college office prior to freshman registration or during the first year at Bowling Green. Admission to the dietetics program requires the completion of 45 semester hours of credit approval by the dietetics faculty and a grade point average of 2.5 or above. The graduate of the program will receive a bachelor of science in dietetics degree.

The curriculum meets the requirements of the generalist dietetics program as outlined by the American Dietetic Association. After

an appropriate internship or preplanned work experience the graduates of this program will be prepared to function as therapeutic or administrative dietitians in hospitals, extended care facilities, community centers or restaurants.

#### **Suggested program**

##### *First year*

BIOL 205 (5)  
ENG 112 (3)  
PEG 100 (2)  
SOC 101 (3)  
CHEM 125 and 126 (10)  
HOEC 210 (3)  
MATH 124 (4)

##### *Second year*

BIOL 313 (3)  
ECON 200 (3)  
CHEM 306, 308 and 309 (8)  
PSYC 201 (4)  
EDFI 302 (3)  
HOEC 212, 307 and 326 (8)  
Electives (2)

##### *Third year*

ACCT 325 (3)  
HOEC 331, 333, 405 and 432 (13)  
MIS 200 or CS (3)  
MGMT 360, 361 (6)  
BIOL 331 or 332 (3)  
DESN 301 (3)

##### *Fourth year*

HOEC 431, 433, 434, 435 and 436 (16)  
HOEC 480 (2)  
General education requirements (6)

or  
Selected professional electives such as HOEC 389, 489, 206, MRA 300, PHIL 342, ENG 488 (6)

#### **Other programs**

A program in dietetics also is offered in the College of Education through the Department of Home Economics.

## **Environmental health**

102 Health Center, 372-0242

This integrated, multidisciplinary program prepares environmental health specialists who are able to improve and maintain the quality of both our indoor and outdoor environments. Graduates are employed by private industry, environmental protection agencies, public health departments, county engineering departments, pollution analysis laboratories, air pollution agencies, private consulting firms, water and wastewater treatment facilities, occupational safety and health agencies, health care facilities and insurance-risk management agencies. The curriculum emphasizes the biological and physical sciences with additional requirements in the social sciences, computer science and statistics. Students learn to perform sample collection and analysis of indoor and outdoor environments to ensure compliance with occupational, public health, safety and environmental quality laws. Program options include public health, environmental protection, industrial hygiene and safety and bio-medical support. The professional technical courses are taken in a one-year sequence at the University's Firelands campus where special laboratory facilities and instructional opportunities are located. A graduate of the program receives a bachelor of science in environmental health degree.

## **Suggested program**

##### *First year*

ENG 112 or equivalent (3)  
MATH 124 (4)  
SOC 101 (3)  
BIOL 101 (3)  
CHEM 125 and 126 (10)  
CS or STAT (3)  
PEG 100 (2)  
General education requirements and electives (3)

##### *Second year*

BIOL 204 and 205 or 104, 331, 332 (10)  
PHYS 201 and 202 (10)  
POLS 331, 335, 336 or 440 (3)  
ECON 200 or 202 (3)  
CHEM 306 (4)

##### *Third year*

(at Firelands campus)  
ENVT 121 (2)  
ENVT 160 (2)  
ENVT 225 (3)  
ENVT 260 (3)  
Option requirements (those which are available only at Firelands) (10-17)  
Communications or humanities (3-10)

##### *Fourth year*

CS or STAT (3)  
ENVT 404 (4)  
ENVT 491 (4)  
Option requirements or electives (17)  
Communications or humanities (3)

This program is subject to revision and may be modified to meet student needs. Electives must be approved by the program director.

#### **Other programs**

Environmental programs are also offered by the College of Arts and Sciences, College of Education and Firelands College. Descriptions of all programs are available at the Center for Environmental Programs, 124 Hayes Hall, 372-0207.

## **Gerontology**

120-A Health Center, 372-2326

The bachelor of science in gerontology degree prepares graduates for positions in agencies and institutions that administer and deliver services for the aged, including social service agencies, senior centers, nutrition programs, nursing homes, recreation and counseling agencies and research organizations.

While providing a basic background in general studies, the gerontology program is flexible enough to permit students to design courses that will best prepare them for particular types of careers within the general field of aging.

A special option is to select a course of study which prepares the student to take the examination for a licensed nursing home administrator in the state of Ohio. Since this option requires careful planning, the program director must be consulted early in the student's academic career.

Each student in the gerontology program selects a cognate area from social work, administration, exercise physiology, biology, art therapy, long-term-care administration, urban planning, speech communication, psychology, nutrition, recreation, family services, food management and sociology. Other cognate areas may be designed by the student and the program director.

During the course of the program, each student completes a field placement in an agency or an institution serving the elderly.

## **Suggested program**

##### *First year*

ENG 112 or equivalent (3-6)  
MATH 115 (3)  
SOWK 110 (2)  
PSYC 201 (4)  
PEG 100 (2)  
BIOL 104 (4)  
SOC 101 (3)  
HOEC 207 (3)  
Cognate requirements  
General education requirements  
Electives

##### *Second year*

BIOL 332 (3)  
GEOG 326 (3)  
PSYC 309 (3)  
SOC 404 (3)  
HOEC 429 (3)  
IPCO 306 (3)  
RED 260 (2)  
Cognate requirements  
General education requirements  
Electives

##### *Third year*

BIOL 310 (2)  
MGMT 305 or 360 (3)  
PHIL 319 (3)  
SOC 463 (3)  
HOEC 436 (3)  
Cognate requirements  
Electives

##### *Fourth year*

GERO 410, 420 and 493 (5)  
GERO 491 (10)  
Cognate requirements  
Electives

This program is subject to revision and may be modified to meet student needs.

## **Medical record administration**

120-A Health Center, 372-2326

All health care institutions keep patient records that contain medical information, case histories of illnesses or injuries, reports on physical examinations, x-rays and laboratory tests, doctors' orders and notes and nurses' notes. Registered Record Administrators supervise the acquisition of the complete medical records of each patient cared for by the medical team; plan record retention and retrieval systems and supervise their maintenance. They train members of the medical record staff for specialized jobs, compile medical statistics required by state or national health agencies, and assist the medical staff in the evaluation of patient care or research studies.

The medical record administration program is a four-year program which leads to a bachelor of science in medical record administration degree. After formal approval of the program by the American Medical Record Association, graduates of the program will be eligible to take the national registration examination given by the American Medical Record Association. Passing this examination certifies a person as a Registered Record Administrator (RRA).

To be eligible for admission into the professional portion of the medical record administration program, students must have completed general education requirements and specified required courses and are required to have junior standing. Students who have completed a two-year associate degree program in medical record technology (such as the one offered at Firelands College) and have verification of Accredited Record Technician (ART) certification will also be eligible for admission if specified required course work has been completed. The student must have a minimum GPA of 2.5 to enroll in the program.

#### Admission criteria

The following criteria must be fulfilled for admission to the professional portion of the medical record administration program:

1. Admission to BGSU.
2. Written application no later than the end of the fall semester of the sophomore year.
3. Completion of at least 60 semester hours:
4. Minimum GPA of 2.5.
5. Personal interview.
6. Two letters of reference (one personal and one professional).
7. Typing proficiency.
8. Formal letter of admission from program director.

#### Suggested program

##### First year

ENG 111 and 112 (6)  
 BIOL 104 (4)  
 CHEM 115 (4)  
 SOC 101 or ECON 200 (3)  
 PSYC 201 (4)  
 MATH 127 (3)  
 PEG 100 (2)  
 MRA 101 (1)  
 General education requirements  
 Electives

##### Second year

MATH 115 (3)  
 SPCH 102 (3)  
 BIOL 331 and 332 (6)  
 MIS 200 (3)  
 BUSE 111 (3)  
 BA 203 (3)  
 BIOL 313 (4)  
 General education requirements  
 Electives

##### Third year

MGMT 305 and 361 (6)  
 PHIL 342 (3)  
 BA 325 (3)  
 MRA 300, 301, 401, 402, 489 and 4XX (17)  
 Electives

##### Fourth year

LEGS 425 (3)  
 MIS 475 (3)  
 MRA 300, 403, 404, 489, 410 and 4XX (23)  
 Electives

## Medical technology

504 Life Sciences Building, 372-0109

Professional medical technologists are involved in the detection, diagnosis and treatment of disease. They perform tests in blood banking, clinical chemistry, hematology, microbiology and nuclear medical technology. Most medical technologists work in hospital laboratories, public health agencies, research institutions, pharmaceutical houses and industrial laboratories.

Many pursue careers in laboratory supervision/management or in education.

Students in the pre-major portion of the program are encouraged to acquire as much liberal education as time permits during the first two years, while completing the prerequisite science courses. The last year and one-half are devoted to professional study and training through lectures, laboratory instruction, seminars and supervised practice in an affiliated clinical facility. Upon successful completion of the program, students receive a bachelor of science in medical technology degree and are eligible to take either of the national certification examinations for medical technologists.

While acceptance to the major may occur at any time, applications are normally submitted in the second semester of the sophomore year for the University-based program. Admission is granted to applicants who have completed all prerequisites with a grade of C, or better, achieved a GPA of 2.5 or higher, met all announced criteria and for whom a training position in the professional studies program has been secured. These positions are assigned at the Toledo Hospital and St. Vincent Hospital and Medical Center by a committee composed of hospital and University representatives. The professional studies program provides experience in research as well as in clinical practice. As an alternative, by special permission of the program director, students may apply for their professional training through a hospital-based program. Hospitals affiliated with Bowling Green include Children's Hospital of Akron; University Hospital, Cleveland; Mt. Sinai Hospital, Cleveland; St. Rita's Hospital, Lima; Mansfield General Hospital; Mercy Hospital and St. Charles Hospital, Toledo; and Youngstown Hospital Association.

During the junior year, students given alternate or conditional admission should design their course schedules to insure the pursuit of a degree in another field of study if space in a professional study program is not available. A grade point average of 2.5 or better must be maintained after the beginning of the junior year. This major also prepares students for entry into a graduate school or other laboratory professions.

During the year of professional training no more than one lecture course in which a D or F has been earned may be repeated; no more than one laboratory course in which a D or F has been earned may be repeated. In the University-based program a student may not proceed into the phase II portion of the year until all courses in phase I are successfully completed, with a grade of C or better in all lecture and laboratory courses.

#### Suggested program

##### First year

BIOL 205, or an introductory course in BIOL approved by the program director (5)  
 BIOL 332 or 411 (3-4)  
 CHEM 125 and 126 (10); or CHEM 135 and 136 (10)  
 MATH 130 (MATH 131 is recommended) (3-10)  
 ENG 112 or equivalent (3-6)

PEG 100 (2)

General education requirements and electives (6-8)

##### Second year

BIOL 405 and 421 (8)  
 MEDT 301 (1)  
 CHEM 201 (3); CHEM 306 (4)  
 PHYS 201 (5)  
 General education requirements and electives (10-14)

##### Third year

BIOL 439 (4)  
 CHEM 308 and 309 (4)  
 MEDT year of professional study courses as approved by the program director (4-12)  
 General education requirements and electives (4-12)

##### Fourth year

Year of professional study and seminars (32-38)

The following are recommended professional electives and desirable courses for general education group requirements:

BIOL 350, 352, 406, 407, 419, 438, 443, 446  
 PSYC 201, 311, 452, 454  
 CS 100, 101, 103  
 MIS 200, 475  
 MGMT 305, 361  
 BA 325  
 LEM 428  
 IE 252  
 PHIL 319, 342  
 IPCO 203, 305, 306  
 ENG 488

## Parasitology and medical entomology

303 Life Sciences Building, 372-2834

Graduates of this program will be prepared for employment in the fields of public health, particularly those areas dealing with parasitology and medical entomology. An option of this program is a clinical experience that will be appropriate to the employment goals of the individual student. The graduate of the program will receive a bachelor of science in parasitology and medical entomology degree.

Because of the variety of options available to the student in this field, individual students, with their advisers, must design appropriate programs. Students should consult the program adviser for complete information regarding degree requirements and curricula.

#### Suggested program

##### First year

ENG 112 or equivalent (3-6)  
 PEG 100 (2)  
 BIOL 104 or 205 (4-5)  
 BIOL 101 or 204 (3-5)  
 MATH 124 and 125 (8); or MATH 131 (5)  
 General education requirements and electives

##### Second year

BIOL 321, 322, 409 and 410 (14)  
 CHEM 115 and 116 (8); or CHEM 125 and 126 (10); or CHEM 135 and 136 (10)  
 General education requirements and electives;  
 Additional course in possible secondary specialization tracks in areas such as microbiology, ecology or animal physiology

##### Third year

Courses in area of secondary specialization  
 BIOL 405 and 435 (8)  
 Electives

**Fourth year**

Courses in area of secondary specialization  
Clinical Practice (3)  
BIOL 406 (3)  
Electives

**Physical therapy**

503-Life Sciences Building, 372-0361  
140-J Health Sciences Building, Medical  
College of Ohio, 381-3518

The basic physical therapy education program provides opportunities for development of the knowledge, skills and attitudes which enable students to be competent entry-level clinical practitioners, to participate in clinical research and to have the basis for future graduate study. The physical therapist is a highly skilled practitioner who is aware of the health problems of the disabled in all age groups and in a variety of environments.

This challenging profession provides a career for men and women who desire to participate with other health care providers in the restoration of maximal functional capabilities of individuals temporarily or permanently disabled by illness, disease, trauma or congenital abnormalities. Most physical therapists work in hospitals, public health agencies, rehabilitation and extended care facilities, public schools and other governmental agencies.

During the freshman and sophomore years, students take a pre-professional program that permits them to fulfill all prerequisite courses and to attain a general education background in communication skills, natural sciences, social and behavioral sciences and the humanities.

The proximity of the University to the Medical College of Ohio has strengthened this cooperative academic program. The junior and senior years are offered on the campus of the Medical College of Ohio. Courses in the professional curriculum include the basic sciences, physical therapy theory and procedures and applied clinical sciences. An important feature of the program is the cooperative practicum and internship experiences in which all students participate. More than 30 hospitals, local health agencies, rehabilitation centers and public schools are affiliated with the program as clinical educational facilities.

Only after accreditation by the American Physical Therapy Association are graduates eligible to take state licensure or registry requirements in the state in which they wish to practice.

Fees for the baccalaureate physical therapy program are the same as for all other degree programs. There are, however, additional charges for uniforms and required professional liability insurance. Transportation to and from classes at the Medical College of Ohio and clinical educational facilities, and any other specific health tests required by the clinical educational facilities, are the responsibility of the student.

**Acceptance requirements**

Candidates for acceptance to the physical therapy professional component in the third and fourth years at the Medical College of

Ohio in cooperation with the University of Toledo and Bowling Green State University must have:

1. been admitted to the University of Toledo or Bowling Green State University.
2. filed the physical therapy professional curriculum application prior to the deadline date of January 15 of the year the student wishes to enroll in the professional curriculum.

3. a minimum of 2.5 accumulative GPA. No S/U or PS (pass) or NC (no credit) options are permitted in required courses or prerequisites for required courses, except those graded only on that basis.

4. completed each of the following courses or their equivalent with a minimum grade of C:

**Natural sciences**

UT: Biology 211-212, 213-214 and 215-216  
BGSU: BIOL 205 and 332  
UT: Chemistry 110, 111-121 and 112-122  
BGSU: CHEM 125 and 126  
UT: Physics 213, 214 and 215  
BGSU: PHYS 201

**Behavioral and social sciences**

UT: Educational Psychology 325 or  
Psychology 101  
BGSU: PSYC 201  
UT: Sociology 101  
BGSU: SOC 101

5. completed all other general program requirements specified by Bowling Green.

6. provided documentation of experience in health care and/or community service(s).

7. completed a personal interview as stipulated by the admissions committee for the professional curriculum.

8. filed a certified letter of acceptance with the program director by April 30.

The availability of clinical facilities and faculty currently limits the acceptance in the third year to only 12 students from each university. Admission to the professional component is highly competitive; therefore, completion of the admission requirements does not guarantee acceptance to the professional physical therapy program.

**Suggested program**

**First year** (preprofessional program: 31-41 hours)  
ENG 112 or equivalent (3-10)  
PEG 100 (2)  
SOC 101 (3)\*  
MATH 130 (3)  
SPCH 102 (3)  
CHEM 125 or 126 (10)\*  
PSYC 201 (4)\*  
General education group I requirements (3-6)

**Second year** (preprofessional program:

28-31 hours)  
PHYS 201 (5)\*  
BIOL 205 and 332 (8)\*  
HED 313 (3)  
MRA 101 (1)  
MRA 301 (2)  
PHIL 342 (3)  
PSYC 309 (3)

PSYC 270 or SOC 369 or MATH 115 (3)  
General education group requirements: Select from PHIL 319, ART 101 or any music composition and/or performance courses.

**Third year** (professional program: 32 hours)  
Human gross anatomy; neuroanatomy and neurophysiology (9)  
Pathology and pharmacology (2)  
Physical therapy procedures (4)

Principles of massage (2)  
Therapeutic exercise (4)  
Research methods (2)  
Functional anatomy (3)  
Applied medical sciences (2)  
Clinical practicums (2)  
Prosthetics and orthotics (2)

**Fourth year** (professional program: 41 hours)

Human growth and development (3)  
Therapeutic exercise (4)  
Cardiopulmonary physical therapy (3)  
Orthopaedic and sports trauma (5)  
Electrophysiological assessment and treatment (2)  
Pathology and pharmacology (2)  
Physical therapy trends and management (2)  
Evaluation principles and techniques applied (4)  
Physical therapy research project (2)  
Clinical practicums (4)  
Summer clinical internship (10)

This program is subject to revision and may be modified to meet student needs.

\*Required for admission to the professional curriculum in the third and fourth years.

**Social work**

320 Williams Hall, 372-2441

This program is designed to prepare students as general practitioners for the beginning level of professional social work practice. Built upon a liberal arts foundation, the program provides an opportunity for students to acquire a value system, gain a knowledge base, and develop a variety of intervention skills in working with people as they attempt to cope with their environments. Typically, social workers assist people facing such problems as poverty, crime and delinquency, physical and mental handicaps and illnesses; strained family relationships; drug abuse; inadequate housing; lack of educational, recreational, and employment opportunities and child abuse and neglect.

During the freshman and sophomore years, students take a preprofessional program that includes introductory social work courses in addition to courses in the broad, general education areas. Admission into the social work program may be made as early as the sophomore year and requires a formal application and screening process. Most of the social work courses are taken in the junior and senior years.

This program emphasizes student participation in area social agencies through observation, volunteer work and supervised field instruction. The graduates of the program receive a bachelor of science in social work degree. The program is accredited by the Council on Social Work Education.

**Suggested program**

**First year**  
SOWK 110 (2)  
ENG 112 or equivalent (3-6)  
BIO 101 or 104 (3-4)  
SPCH 102 (3)  
SOC 101 (3)  
CS 100 or 101 (3)  
PSYC 201 (4)  
PEG 100 (2)  
General education requirements  
Electives

*Second year*

SOWK 220, 225, 227 (8)  
 POLS 201 (3)  
 SOC 202 (3)  
 IPCO 306 (3)  
 ECON 200 (3)  
 PHIL 210 (3)  
 General education requirements  
 Electives

*Third year*

SOWK 321, 322, 325, 330 and 332 (15)  
 SOC 301 and 370 (6)  
 MGMT 305 (3)  
 General education requirements  
 Electives

*Fourth year*

SOWK 326, 423 and 424 (5)  
 PSYC 405 (3)  
 Electives

This program is subject to revision and may be modified to meet student needs.

**Other programs**

A program in speech and hearing therapy is offered through the College of Education. Other programs in speech are offered through the College of Arts and Sciences and its School of Speech Communication.

## Speech pathology and audiology

338 South Hall, 372-2515

The undergraduate major in speech pathology and audiology will prepare students in the basic speech and hearing sciences, theoretical and practical aspects of therapy, as well as affording the student the opportunity for a limited amount of observation, participation and direct clinical work under supervision. The student will also become familiar with other para-professionals' services and goals and the interrelationships of these with speech pathology and audiology. Since this is a preprofessional program, students who wish to receive the Certificate of Clinical Competence from the American Speech-Language-Hearing Association are required to obtain a master's degree. The State of Ohio requires a master's degree, or its equivalent, for the licensing of a speech and hearing clinician.

**Suggested program***First year (29 hours)*

BIOL 104 (4) recommended  
 ENG 112 or equivalent (3-6)  
 SOC 101 (3)  
 SPCH 102 (3)  
 PEG 100 (2)  
 PHYS 350 or MATH (3)  
 CDIS 223 and 226 (5)  
 Elective (3 of 6 hours to fill general education group V requirements)

*Second year (29 hours)*

EDFI 302 (3)  
 ENG 380 (4)  
 PSYC 311 or SOC 301 (3)  
 PSYC 201 and 270 (7)  
 CDIS 301, 311, 321 and 361 (12)

*Third year (31 hours)*

EDSE 431 (3)  
 CDIS 331, 341, 351, 401 and 411 (15)  
 PSYC 324 (3)  
 Electives (10)

*Fourth year (27 hours)*

EDSE 451 (3)  
 PSYC 305, 309 and 405 (8)  
 CDIS 421, 431 and 461 (8) (A 2.5 accumulative grade point average in the program core requirements is required to be eligible for enrollment in CDIS 421 and 431, clinical practicum.)  
 Electives (11)

This program may be subject to revision and may be modified to meet student needs.



# School of Nursing

Medical College of Ohio, 381-3418  
102 Health Center, 372-0242  
Firelands option, 433-5560

The School of Nursing offers the student an opportunity to become actively involved in the health field as a professional nurse with a bachelor of science in nursing degree. The curriculum emphasizes a liberal education combined with the nursing theory and clinical practice needed to develop as an educated nurse. A graduate of the nursing program is capable of providing health services for individuals, families and communities, eligible to take the licensing examination to become a registered nurse, and prepared for future graduate study and leadership in nursing.

The School of Nursing is accredited by the National League for Nursing and has full approval of the Ohio State Board of Nursing Education and Nurse Registration.

Fees for the nursing program are the same as for all other degree programs. Additional charges, however, are mandated for uniforms, professional liability insurance, specific health tests and lab fees. Transportation to classes at the Medical College of Ohio in Toledo and to the clinical placements is the responsibility of the student.

## Admission requirements

Admission to the preprofessional nursing program is through the office of admissions of the University. Successful completion of the preprofessional requirements is a prerequisite for admission to the professional nursing program. The number of students accepted into the nursing program is limited by the availability of clinical facilities and faculty. Admission to the professional program is competitive and based upon:

1. Completion of:
  - ENG 112
  - MATH — demonstrated competency above 096 level
  - CHEM 115 and 116
  - BIOL 205
  - PSYC 201
2. Accumulative grade point average in the preprofessional program. Special emphasis is placed on high achievement in the science courses.
3. Completion of 30 semester hours of credit.
4. Participation in an interview.

## Bachelor of science in nursing

A candidate for the bachelor of science in nursing degree must earn a minimum of 123 semester hours of credit either in residence, by advanced standing or transfer credits, in addition to the requirements listed on page 7.

A minor is not required for graduation.

## General education requirements

### Group I: Communications

Each student is required to complete ENG 112 or demonstrate a proficiency in written expression equivalent to that attained by students who have completed the course. A penalty is imposed if ENG 112 is not completed within the first 60 hours. See page 8.

### Group II: Mathematics and natural sciences

Each student is required to complete BIOL 205, CHEM 115, 116 and MATH as demonstrated by a competency examination score above MATH 096 level.

### Group III: Social sciences

Each student is required to complete PSYC 201, 270, 405; and SOC 101.

### Group IV: Arts and humanities

Each student is required to complete one course in literature (American, English or foreign), PHIL 342 and one other course in one or more of the following areas: ART, literature, foreign languages, music, PHIL, POPE, SPCH or THEA. A list of courses approved for the group IV requirements is available from the School of Nursing office, 102 Health Center.

Additional required credit hours exclusive of major include HOEC 207, EDFI 342, two hours of PEG 100 and electives.

The program requires a minimum of 56 hours. These include 12 nursing courses and 6 human biological science courses. A minimum grade of C is required in all nursing courses in the professional program.

## Suggested program

*First year (preprofessional program)*  
CHEM 115 and 116 (8)  
MATH — demonstrated competency above 096 level  
SOC 101 (3)  
PEG 100 (2)  
ENG 112 or equivalent (3-6)  
BIOL 205 (4)  
PSYC 201 (4)

*Second year (professional program)*  
PHIL 342 (3)  
NURS 260, 261 and 351  
EDFI 342 (3)  
HOEC 207 (3)  
General education group IV requirements  
Electives

*Third year*  
PSYC 270 and 405 (8)  
NURS 205, 206, 207, 303, 305, 306, 307, 350 and 352

*Fourth year*  
NURS 400, 401, 402, 411 and 412  
Electives

The above is a suggested program that may be modified according to individual needs and capabilities.

## Degree program for the registered nurse

The School of Nursing also offers an opportunity for graduates of associate degree and diploma programs to earn a baccalaureate degree with a major in nursing. This alternate track for the RN student provides for flexibility and an individualized approach for the nurse who is already practicing.

Criteria for seeking admission to the major are:

1. one year of practice as a registered nurse.
2. minimum of 30 semester hours of college credit including prerequisite courses in chemistry and biology or equivalents with minimum GPA of 2.5,
3. 50th percentile success on selected National League for Nursing Examinations. The NLN examinations earn the diploma graduate 30 semester hours of nursing credit and determine placement for both diploma and associate degree graduates into the RN sequence (upper-division nursing).

Application to the major takes place spring semester preceding the fall semester in which the student plans to enter the major.

The upper division major consists of five nursing courses and two advanced physiology courses in the junior year; three clinical

nursing courses and nursing research in the senior year.

A minimum of 123 hours are required for graduation, of which 40 hours need to be in upper-division course work.

The nursing courses are offered through the Bowling Green main campus and the Firelands campus.



# College of Musical Arts

Richard Kennell, assistant dean,  
1047 Musical Arts, 372-2181  
Department of Composition and History,  
JaFran Jones, chair, 1043 Musical Arts,  
372-2181  
Department of Music Education, Patrick  
Tallarico, chair, 1041 Musical Arts,  
372-2181  
Department of Performance Studies,  
Rex Eikum, chair, 1039 Musical Arts,  
372-2181

## Objectives

The primary objectives of the College of Musical Arts are to educate talented musicians for professional careers in teaching, performance, composition, and musical scholarship; and to serve the University community by contributing to the general education program. The college also strives through its division of public mission to enhance the cultural climate of the entire campus and community and to serve as a cultural resource for northwest Ohio.

## Accreditation

Since 1947, the College of Musical Arts has been accredited by the National Association of Schools of Music.

## Entrance examinations

Each major or minor is required to audition in the student's major performance area and to take a written placement test. Depending on the outcome of the audition, a student is accepted, admitted on probation or rejected. Nonmusic students wishing to enroll in applied music courses are also required to audition in their chosen performance area.

## Music organizations

Membership in music organizations is open to all students. Selection is made on the basis of tryouts. These organizations include the A Cappella choir, men's chorus, women's chorus, and collegiate chorale; concert, marching, and symphonic bands; symphony and chamber orchestras; and vocal and instrumental ensembles, including Collegium Musicum and Jazz Lab Band. See the *Course Descriptions* for a full listing of ensembles.

## Bachelor of music

The College of Musical Arts offer curricula leading to the Bachelor of Music Degrees in the following areas:

- Music composition and theory
- Jazz (minor only)
- Music education
  - Choral option—keyboard
  - Choral option—voice
  - Classroom option—keyboard
  - Classroom option—voice
  - Instrumental option—keyboard
  - Instrumental option—solo instrument
- Musical theater option
  - Jazz (minor only)
- Music history and literature
  - Jazz (minor only)
- Performance studies
  - Church music
  - Instrumental option
    - Brass
    - Harp
    - Percussion
    - String
    - Woodwind
  - Keyboard option
    - Harpsichord
    - Organ
    - Piano accompanying
    - Piano literature
    - Piano pedagogy
  - Musical theater
    - Voice
    - Jazz (minor only)

This degree provides undergraduate preparation for a professional career and a background for graduate study. To insure not only technical skills but a broad understanding of the social and cultural environment in which the art of music is practiced, the programs outlined for each concentration stress breadth as well as depth. See course descriptions for specific courses available in these programs.

## General requirements for the degree

A candidate for a degree in the College of Musical Arts must fulfill the general requirements listed on page 7 and meet the requirements for the degree listed in the following pages and in the latest lists of requirements available from each department. Certain requirements may be added, deleted or modified, and responsibility resides with the student for obtaining the most recent requirements from the respective departments.

## Recital attendance and participation

Students are required to attend biweekly seminars according to area of performance study. Further all freshman, sophomore and junior music majors (and minors during terms in which they are engaged in performance study) will be required to attend 15 musical recitals or concerts on campus each term, exclusive of those in which the student is a participant. Attendance at the biweekly musicianship and performance class may be counted toward the minimum of 15 recitals per term. To monitor this attendance, students majoring in music must register for and successfully complete six semesters of MUS 099.

## Double major

A student interested in a double major should consult with the chairs of the departments involved for information pertaining to the requirements. Double majors must be approved by the chairs of the appropriate departments. Such programs ordinarily require more than eight semesters to complete.

## Jazz minor

The jazz minor is a supplementary program of courses and performance experiences presenting the historical and stylistic features of jazz. The jazz minor may be added to existing undergraduate degree programs in music education, performance, composition or music history. Students interested in the jazz minor should consult with their department chair for assistance in planning for the additional required course work.

### Jazz minor program (32)

- MUCH 211, 212 - Jazz Improvisation and Repertoire (4)
- MUCH 236 - Intro Jazz and Commercial Music (2)
- MUCH 237 - Jazz (3)
- MUCH 311, 312 - Jazz Arranging and Analysis (6)
- MUCH 411 - Jazz Pedagogy (2)
- MUCH 436 - Recording Techniques (2)
- MUSP Small ensemble (4)
- MUSP Applied instruction (8)

## S/U grading

No required music courses may be taken for S/U grades. General education and professional requirements outside of music, however, may be taken for S/U credit. Elective hours within and outside of music may also

be taken on an S/U basis provided that the general grading policies of the University are maintained.

### Aural skills

In order to acquire those hearing and sight-singing skills which are basic to any career in music, all music majors are required to pass level IV of aural skills prior to graduation. Since this course is competency based, students are encouraged to progress faster than the "normal" rate of one level per semester. This may be accomplished by passing proficiency exam(s) in the various level(s). See music composition-history chair for information regarding receipt of credit for levels skipped.

### Course prerequisites

For all music majors, completion of MUCH 131 and 132 with passing grades plus completion of MUCH 142 with a grade of C or better are prerequisites to enrollment in 200-level MUCH modules. Certain upper-division courses have specific prerequisites from within the modular program (see course description for details).

### Elements of Music I

MUCH 110 (preview to music) does not fulfill degree requirements (or electives) for music majors and minors.

## Degree programs

### Music composition and theory

1043 Musical Arts Center, 372-2181

#### Admittance

Students already majoring in other areas of music who have developed a strong interest in music composition or theory and have demonstrated a strong aptitude in one of these areas may apply to the chair of the Music Composition-History Department for acceptance as a major in music composition or music theory. It is also possible to add music composition or music theory to an original major for a double major. Normally this is done by the end of the sophomore year. An application for this double major must be approved by the faculty of the department.

#### Approval for continuation

The progress of each continuing major in music composition or music theory will be reviewed each semester by the faculty of the Music Composition-History Department before the student is admitted to the next semester's work. *Provisional* students have one year to remove their provisional status. Each candidate for senior status must submit at least one score or tape of an original composition or arrangement, or one original paper on some aspect of music theory.

#### Advising

Upon acceptance as a music composition or music theory major, it is recommended that each student meet with the chair of the

Music Composition-History Department to develop a program of courses that will include the remainder of the group and music requirements.

### Collegium Musicum

See description under music history and literature. Participation in the New Music Ensemble by music composition and music theory majors is strongly encouraged. Renaissance, Baroque, and Indonesian Gamelan ensembles also provide a training ground for performance practice.

### Piano

Functional piano proficiency tests I and II are required.

### Jazz minor

Course work is available for students interested in specializing in jazz. See the department chair for course offerings and the planning of a curriculum around individual needs.

### Approval for graduation

Candidates for the bachelor's degree in music composition are required to present half-recitals or their equivalent, such as music for a stage play or film of substantial length. Candidates for the bachelor's degree in music theory are required to submit papers which make contributions to the field of music theory through research or analysis.

### Degree requirements

The bachelor of music degree in music composition and theory requires 137 total credits distributed as follows:

1. 42 credit hours in general study;
2. 51 credit hours in basic musicianship, including performance;
3. 42 credit hours in advanced courses in music theory, literature and composition;
4. 2 credit hours in PEG 100.

For specific information, refer to the chair of the Department of Music Composition and History.

### General education minimum requirements

#### Group I: Communication

Each student must complete at least one course in written communication such as English 112 or the equivalent. A penalty is imposed if English 112 is not completed by the junior year. See page 8. Total: 3 hours.

#### Group II: Foreign language or cultural experience

Each student must complete at least eight hours of one language; either French or German is recommended. For students without previous foreign language training, election of GERM 100 is recommended. If proficiency equivalent to 101-102 in either language can be established with the appropriate language departments, then courses beyond this level may be taken. One semester in a computer science programming language course may be substituted for one semester of a foreign language beyond the first year of earned credits.

Students must also complete six hours of

a second language or substitute music courses not required in the major curriculum with the approval of the chair of music composition and history. Total: 14 hours.

#### Group III: Mathematics and natural sciences

Students must complete at least one course in science or mathematics. PHYS 350 is recommended. Total: 3 hours.

#### Group IV: Social sciences

Students must complete at least one course selected from anthropology, ECON, GEOG, HIST, POLS, PSYC or SOC. Total: 3 hours.

#### Group V: Arts and humanities

Students must complete one course in fine arts, philosophy and English literature. Total: 8 hours.

In addition, students must select a sufficient number of courses from any of the five groups in consultation with the chair to meet the minimum total group requirements of 49 hours.

### Suggested program

*First year* (31 hours)

MUCH 131, 132, 141 and 142 (12)

PEG 100 (2)

Applied music or vocal/instrumental classes (2)

Group I requirements (3)

MUCH 236 (2)

Large or small ensembles

MUED 150 and 151 or 152 (2)

Group V requirements (8)

*Second year* (34 hours)

MUCH 231, 232, 241 and 242 (9)

MUCH 233 or 234 or 235 (2)

MUCH 236 or 237 (2-3)

Applied music or vocal/instrumental classes (2)

Foreign language (8)

Group electives (6)

Ensembles (2)

MUED 250 and 251 (3)

*Third year* (32 hours)

MUCH H341 (2)

MUSP 305 and 306 (4)

MUCH 315 and 320 (4)

MUCH 308 and 309 (4)

MUCH 316 (6)

Ensembles

Group electives (7)

MUCH electives (2)

Group III requirements (3)

*Fourth year* (34 hours)

MUCH 316 (6)

MUCH 424 and 425 (6) or MUCH 410 (6)

Group electives (5)

MUCH 410 (8)

MUCH 403 and 404 (4)

MUCH electives (2)

Group IV requirements (3)

The above is a sample program which may be modified with the approval of the chair of music composition/history according to the student's individual needs and capabilities.

## Music education

1041 Musical Arts Center, 372-2181

The music education curriculum is designed to prepare students to become elementary and secondary school music teachers. The department believes that this can be accomplished by providing for the student:

1. a program of general studies in the sciences and humanities;

2. advanced study in music performance and comprehensive musicianship; and
3. a program of professional training including field experiences, methods courses, and laboratory training.

### Degree programs in music education

All bachelor of music degree programs in music education lead to provisional special certification for teaching elementary and secondary school music. Four degree options are offered in music education: a choral, an instrumental, a classroom music and a musical theater major. The choral major is intended for those who wish to teach junior and senior high school choral ensembles; the instrumental major for those who wish to work with bands and/or orchestras at elementary and secondary levels; the classroom major for those who are interested in teaching elementary and junior high school general music; and the musical theater major for those who are interested in teaching choral music at the secondary level and in producing musical shows. For complete degree requirements for the musical theater option, refer to "music education option requirements."

In order to graduate in four years, a student must take approximately 33 hours of required course work each year. Music education majors usually take between 16 and 18 credit hours per semester. The total number of hours required are distributed over the areas of general and professional study which appear below and vary slightly according to the specific options.

1. 42 hours of credit in general studies;
2. 11 hours of credit in professional education;
3. 60 hours of credit in music core courses including music theory, music history, performance, conducting, ensembles, methods courses, and student teaching;
4. 18-22 hours of credit in music education option;
5. 2-3 hours of credit in PEG.

### Selecting a degree option

All freshman music education majors are enrolled in a general course of study for the first academic year. Students are required to select a degree option during that year.

Approval of an option is initially determined on the basis of the student's academic standing and performance achievement.

1. Academic standing is determined on the basis of cumulative grade point hours and quality points, and standing in the basic music courses.
2. Performance proficiency is measured through applied juries at the end of each semester. These performance juries are used to determine a student's performance proficiency for choosing a specialty area, and to determine whether performance progress has been satisfactory. Only students whose performance status is satisfactory will be granted an area of specialty. Unsatisfactory performance results in either the student's being placed on probation or being

dropped from the program. Probation is granted for only one semester during which time satisfactory achievement must be demonstrated or dismissal from the program will ensue.

3. To remain in a degree option, students must exhibit teaching competency as judged by the music education faculty.

Students who decide to change from one option to another must first consult with the department chair. In addition, they may be required to meet additional professional and performance requirements. Any student changing an option must complete at least 10 credit hours in one performance area.

### General education requirements

To ensure a general education background in addition to the teaching major, a student is required to complete 42 hours of credit from the five areas of knowledge indicated below:

#### Group I: Communication

Each student must complete ENG 112 and SPCH 102. A student is considered to have demonstrated acceptable performance in English skills if a grade of C or better is received in ENG 112. A student who receives a D in ENG 112 must repeat the course until a grade of C is earned. A penalty is imposed if ENG 112 is not passed before the junior year. See page 8. Minimum total: 6 hours.

#### Group II: Foreign language or cultural experience

(See requirements listed under Group V.)

#### Group III: mathematics and natural science

Each student must complete at least 6 hours of credit in course work selected from BIOL, CHEM, PHYS, GEOL, MATH or MIS. MATH 241 and 242 are applicable only for an elementary education major.

#### Group IV: Social sciences

Each student must complete PSYC 201 and at least 3 hours of credit from ECON, GEOG, HIST, POLS, PSYC, anthropology or SOC.

#### Group V: Arts and humanities

Each student is required to complete one course in ENG literature (3 hours) and 6 hours of credit in one or more of the following: ART, speech (including RTVF and THEA), literature, modern dance, PHIL or foreign language. Group V requirements may not include music courses.

#### Group V: Requirements for the classroom music major

Students pursuing the classroom music option are required to take 9 hours in related art disciplines. These include: ART 101, 3 hours from ART 145 and 146; Speech 347, Applied Art or Art History, and 3 hours of ENG literature. 14 hours may then be elected from one or more of the groups or from those disciplines listed above. Required courses in the music education major may not be used. At least 3 of the 14 hours must be nonmusic courses.

### Group V: Requirements for the music theater major

Students pursuing the music theater option must complete the following courses in theater and related field: THEA 202, 241, 341, and 352 (12) and THEA 243 or 343 or 349 (3-4). Students are also required to take one course in ENG literature (3). Students must then elect 4 hours from one or more of the groups or from those disciplines listed above. Required courses in the music education major must not be used.

Music theater majors must also complete 3 hours of recreation in dance from among ballet, ballroom dance, square dance, folk dance, jazz dance, modern dance and tap dance.

### Total group requirements

Each student in music education must meet the total minimum requirements (28 hours) for groups I, II, III, IV, V. The remaining 14 hours may be elected from one or more of the groups, or from any of the following disciplines: JOUR, MKT, MGMT, BUSE, international business, LEGS, FIN, INS, L&EM, HOEC, POPC, technology, health, physical education, and recreation, music and education. Required courses in the music education major may not be used. At least three of the 14 hours must be nonmusic courses.

### Professional education requirements

To ensure adequate professional preparation for a career in teaching, the following courses are required: EDFI 302, 402 and 408; and EDAS 409. (The prerequisite for EDFI 302 is PSYC 201.)

### Music core requirements

All music education majors are required to complete the following core courses. Minimum total: 60 hours.

#### Music history and theory

Music modules MUCH 131, 132, 231, 232, 236, and 233, or 234 or 235. Also MUCH 315, or 320. Aural skills I-IV; (MUCH 141, 142, 241 and 242.) Minimum total: 27 hours.

#### Conducting

MUSP 305 and 306 required in the junior year before student teaching. Minimum total: 4 hours.

#### Performance

10 hours minimum in one performance medium.

#### Ensembles

5 hours of large ensembles and one hour of small ensembles. Total: 6 hours.

#### Music methods

MUED 240. Total: 3 hours.

#### Student teaching

MUED 331. Eligibility requirements for student teaching are specified under "Student Teaching" in this section of the Undergraduate Catalog. Total: 10 hours.

### Music education options

In addition to the core requirements (60 hours) each major in music education must complete the requirements of one of the following options:



**Choral option (keyboard emphasis)\***

MUED 340, MUED 359, MUSP 311, 3 hours of instrument classes (see additional requirements—instrument classes), 3 hours of class or studio voice, 2 hours of class piano and functional proficiencies I and II. Total minimum: 20 hours.

**Choral option (vocal emphasis)\***

MUED 340, MUED 359, MUSP 311; 3 hours of instrument classes (see additional requirements—instrument classes), one hour of studio piano, 2-4 hours of class piano and functional proficiencies I, II, and III. Total: 19-21 hours

**Classroom option (keyboard emphasis)\***

MUED 340, 451, 3 hours of instrument classes, 3 hours of class or studio voice; 2 hours of class piano and functional proficiencies I and IV. Total: 19 hours.

**Classroom option (vocal emphasis)\***

MUED 340, 451, 3 hours of instrument classes, 1 hour of studio piano, 3-5 hours of class piano and functional proficiencies I, II, and III. Total: 18-20 hours.

**Instrumental option****(keyboard emphasis)\***

MUED 340, 7 hours of instrument classes, 1 hour of class or studio voice, 2 hours of class piano and functional proficiencies I, II, and III. Total: 19 hours.

**Instrumental option (solo instrument emphasis in woodwind, brass, string, or percussion)\***

MUED 340, 7 hours of instrument classes, 1 hour of class voice, 3-5 hours of class piano and functional proficiencies I, II, and III. Total: 20-22 hours.

**Choral-musical theater option (vocal emphasis)\***

MUED 340, 359, MUSP 311, 3 hours of instrument classes, 1 hour of studio piano, 3-5 hours of class piano, and functional proficiencies I, II, and III. Total: 19-21 hours.

**Choral-musical theater option (keyboard emphasis)\***

MUED 340, 359, MUSP 311, 3 hours of instrument classes, 3 hours of class or studio voice, 2 hours of class piano and functional proficiencies I, II, and III. Total: 20 hours

**Performance requirements—musical theater option**

Each student must participate in one University musical (theater program and College of Musical Arts) and three theatrical productions well distributed over the following: opera, opera workshop, educational theater, community theater, professional theater, and dance theater. Each production must be approved by the chair of music education.

**Admittance to the musical theater option**

At the end of the first year of study, a student must audition for *probationary acceptance* into the musical theater option before a committee of representatives from the University's dance program, theater program, and College of Musical Arts.

At the end of the second year of study, a student must audition for *formal acceptance* into the musical theater option before a

committee of representatives from the University's dance program, theater program, and College of Musical Arts.

**Performance requirements**

In addition to specific course requirements, music education majors must meet the following performance-oriented requirements.

**Performance jury examinations**

Each student in music education must have a major performance emphasis and must pass an examination in that area at jury examination times. Jury examinations are scheduled at selected times and are posted for each academic year. Failure to pass a performance jury examination results in probationary status for one semester at the end of which significant improvement must be demonstrated or performance instruction will be terminated and the student will be dismissed from the program. Students wishing to change their area of performance emphasis must do so with the approval of the chair of music education and the appropriate performance faculty.

**Recital**

A half recital (or its equivalent) is required of all music education majors. This is usually given in the senior year before or after the semester of student teaching; *it may not be given while student teaching*. Permission to perform a recital is given by the appropriate performance faculty and is based upon the student's performance at a recital jury examination. Students desiring to meet this requirement through equivalent means must receive approval from the chair of music education and the appropriate performance faculty. Students are encouraged to give a full recital; however, a full recital may only be given with the consent of the performance area faculty.

\*MUED 340 consists of two major methods components: general music K-8 and the student's major option area of emphasis. Specific options will be offered only during certain semesters.

**Functional keyboard requirements**

Music education majors are required to pass three of the functional proficiency examinations listed below. Instrumental majors must pass proficiencies I, II, and III; choral majors proficiencies I, II, and III; and classroom majors, proficiencies I, III, and IV. Piano requirements for all degree programs cannot be met simply by taking piano for a specified number of credit hours. The following skills are required for each proficiency examination:

Proficiency I: scales; basic chord progressions, chording melodies, and sight reading

Proficiency II: harmonization and score reading

Proficiency III: accompanying

Proficiency IV: harmonization, improvisation, and transposition

Proficiency I is a freshman-level requirement; proficiencies II and IV are sophomore requirements, and proficiency III a junior requirement.

All entering freshmen are auditioned on piano and placed according to their keyboard skills. Students with no keyboard background are placed in the introductory

class piano sequence of MUED 150 and 151. Students with some keyboard experience are placed in either 151 or 154 depending upon their level of proficiency. Keyboard emphasis students are placed in MUED 154 in lieu of taking MUED 150-151 and take MUSP 264 in lieu of proficiency III.

All freshmen are expected to pass functional proficiency I by the end of the second semester. Sophomore and junior level piano course requirements are unique to each option in music education. They are specified in the music education handbook and are designed to prepare students for the second, third, and fourth functional proficiency examinations.

Any of these proficiency examinations may be passed ahead of schedule. Freshman and sophomore proficiencies must be completed prior to student teaching. Students who have not passed functional proficiency I and III (or IV) will not be allowed to student teach. Because of the time required to place students in student teaching assignments, there must be at least one full semester between the time the final proficiency is passed and the semester of student teaching. Summer session is considered equivalent to one semester. Proficiency examinations are scheduled at the mid-term and end of each semester.

Certain piano classes must be passed with a grade of C or better. These are indicated in the course descriptions. Additional information on all functional piano requirements is available from the chair of music education. Students are responsible for knowing and meeting all proficiency requirements.

**Additional requirements****Academic minor**

Ordinarily students pursuing a degree in music education do not carry an academic minor; however, a minor can be pursued provided the student is willing to take additional credits beyond the minimum required for graduation.

**Added course requirements**

On the basis of the placement examination students may be required to take additional courses besides those specified in the music core and music education option requirements. Students will be notified of such requirements before the beginning of their freshman year.

**Field experiences**

Field-based experiences are an essential part of professional teacher preparation. In compliance with state certification requirements, students will be required to participate in such experiences as a part of certain music education courses.

**Instrument classes**

Music education majors pursuing the instrumental option are required to take the following six instrument classes: MUED 130, 136, 140, 145, 146 and 180. (It is strongly recommended that MUED 130, 140, 145 and 146 be taken initially, preferably during the freshman/sophomore years.) Choral, classroom and theater majors are required to take the following three instrument

classes: MUED 130, 140 and 195. The following instrument classes are available as highly recommended electives: MUED 190 (harp), MUED 125 (percussion), MUED 147 (bassoon reed class).

#### **Conducting requirements**

All music education majors must pass second semester conducting with at least a grade of C. Those students receiving a grade of D or less will be required to repeat MUSP 306 (Conducting) and to achieve better than average work before being allowed to student teach.

#### **Methods requirements**

Music education majors must pass all required methods courses (MUED 240, 340) with at least a grade of C. Those students receiving a grade of D or less will be required to repeat the course(s) in question and to achieve better than average working before being allowed to student teach.

#### **Large ensembles**

Music education majors are encouraged to participate in large ensembles each semester except the semester they student teach. Instrumental majors must acquire five hours of large ensemble credit exclusive of marching band. Marching band credit may apply toward elective hours. Choral and classroom majors must acquire five hours of large ensemble credit exclusive of men's and women's chorus. Credit for men's and women's chorus may apply toward elective hours.

#### **Student teaching**

The requirements for student teaching in music are established by the State of Ohio, the University, and the Department of Music Education. To be eligible for an assignment in student teaching the student must meet the general requirements of the College of Education and those prerequisites established by the Department of Music Education.

#### *Departmental prerequisites*

Music requirements for student teaching include the successful completion (with a grade of C or better) of MUED 240 and 340, MUSP 306; any other required methods courses, and the required functional piano proficiency examinations. In addition, instrumental majors should attempt to complete the seven-hour instrument class component prior to student teaching.

#### *Registration*

Each student teacher must register in two places: (a) with the University Office of Student Teaching in the College of Education; and (b) with the coordinator of student teaching in the College of Musical Arts.

#### *Speech and hearing test*

Prospective teachers must also take speech and hearing tests so that they may avail themselves of appropriate corrective services if necessary.

#### *Transportation and housing*

Students must provide their own transportation to assigned schools. Students without transportation are expected to live in the assigned community. Requests for stations close to the campus because of apartment leases, etc., may not be honored.

#### *Station assignment*

Students will be assigned to teaching stations and supervisors at the discretion of the coordinator of student teaching. Requested stations or supervisors cannot be guaranteed.

#### *Preteaching interview*

Any school system has the right to interview a prospective student teacher. If the student is not accepted, the coordinator reserves the right to designate a reassignment. If necessary, the coordinator may request that the student seek an interview with school authorities.

#### *Radius*

The radius for student teacher placement is not more than 75 miles from campus.

#### *Withdrawal from student teaching*

Once an assignment has been accepted by a school system, a student teacher may not withdraw except in cases of emergency (e.g., ill health, a death in the family).

#### *Changing semester of teaching*

Students requesting to change their assigned semester of student teaching may have to wait one or more semesters if no opening in the semester requested exists.

#### *Extended student teaching*

If a student does not successfully meet the performance objectives and competencies outlined by the Office of Student Teaching and the Department of Music Education during the semester of student teaching, the student may be required to do extended student teaching. A student doing unusually ineffective teaching in any of the competency areas may be required to pursue further academic study in that area(s) before being allowed to do extended student teaching.

#### *Time requirement*

All students must complete the full-semester time requirement for student teaching.

#### *Written requirements*

Student teachers must complete all written requirements connected with their final evaluations or receive an incomplete for the semester.

#### *On-campus activities*

For a student to be effective, total commitment to teaching is necessary. Students may not take an academic course, present recitals, perform in ensembles, or take private lessons during student teaching except with the consent of the music education department.

#### *Graduate students*

Graduate students seeking teaching certification must meet all undergraduate student teaching requirements.

#### *Summer student teaching*

Student teaching during summer session terms is not permitted.

## **Music history and literature**

1043 Musical Arts Center, 372-2181

### **Admittance**

Students already majoring in other areas of music who have developed a strong interest in music history and literature and have demonstrated a high standard of academic achievement may apply to the chair of the Music Composition-History Department for acceptance as a major in music history and literature. Normally this is done at the end of the freshman or sophomore year. The application will be reviewed by the faculty of the department for acceptance or rejection.

### **Approval for continuation**

The progress of each continuing major in music history and literature will be reviewed annually by the faculty of the Music Composition-History Department before the student is admitted to the next year's work.

### **Advising**

It is recommended that upon acceptance as a music history-literature major, each student meet with the chair of the Music Composition-History Department to develop a program of courses to fulfill the remainder of the group and music requirements.

### **Collegium musicum**

The department maintains a collegium musicum as a training ground for performance practice and showcase for music not usually performed by other traditional music ensembles. Ensemble credit is available in: Renaissance Ensemble, Baroque Ensemble, New Music Ensemble, and Indonesian Gamelan. Participation in these ensembles by music history-literature majors beyond the required four hours is strongly encouraged.

### **Piano**

Functional piano proficiency tests I and II are required.

### **Jazz minor**

Course work is available for students interested in specializing in jazz. If interested in pursuing this minor, students should see the department chair for course offerings and the planning of a curriculum.

### **Approval for graduation**

Music history and literature majors are expected to meet standards acceptable to the music composition-history faculty in performance and in scholarship as evidenced in MUCH 406.

### **Degree requirements**

The Bachelor of Music degree in music history and literature requires 129 total credits, distributed as follows:

1. 49 credit hours in general studies;
2. 48 credit hours in basic musicianship, including theory and performance;
3. 30 credit hours in advanced courses in music history and literature;

## 4. 2 credit hours in PEG 100.

For specifics refer to the chair of the Department of Music Composition-History.

**General education requirements****Group I: Communication**

Each student must complete at least one course in written communication such as English 112 or the equivalent. Total: 3 hours

**Group II: Foreign language or cultural experience.**

Each student must complete at least 8 hours of one language (either French or German is recommended) and at least 6 hours of another language. For students without previous foreign language training, election of GERM 100 is recommended. If proficiency equivalent to 101-102 in the first language or 101 in the second language can be established with the appropriate language department, then courses beyond this level may be taken. Total: 14 hours.

**Group III: Mathematics and natural science**

Each student must complete at least one course in science or mathematics. Computer science or acoustics is recommended. Total: 3 hours.

**Group IV: Social sciences**

Each student must complete at least one course selected from: anthropology, ECON, GEOG, HIST, POLS, PSYC and SOC. Total: 3 hours.

**Group V: Arts and humanities**

Each student must complete one course in ENG literature, and one course in philosophy or fine arts. Total: 8 hours. In addition, each student must elect a sufficient number of courses, selected from any of the five groups in consultation with the chair to meet the minimum total group requirements of 49 hours.

**Suggested Program***First year (33 hours)*

MUCH 131, 132, 141, 142 (12)

MUED 150, 151 (2)

MUCH 236 or 237 (2-3)

Applied music (2)

Large or small ensembles (2)

Group I requirements (3)

Group III requirements (3)

Group V requirements (5)

PEG 100 (2)

*Second year (35 hours)*

MUCH 231, 232, 241, 242 (9)

MUCH 233 or 234, or 235 (2)

Applied music (2)

MUED 250 and 251 (3)

Large or small ensemble (2)

Group IV requirements (3)

Group II requirements (8)

Group electives (6)

*Third year (31 hours)*

MUCH 315 or 320 (2)

MUCH 341 (2)

MUSP 305 and 306 (4)

Group II requirements (2)

Collegium Musicum (2)

Music history and literature electives (5)

Group electives (10)

*Fourth year (29 hours)*

MUCH 308 and 309 and 407 (6)

MUCH 406 (6)

Music history and literature electives (4)

Group V requirements (5)

Collegium Musicum (2)

Music theory electives (6)

The above is a sample program to be modified according to individual needs and capabilities with the approval of the chair of music history/composition.

**Performance Studies**

1039 Musical Arts Center, 372-2181

A student is accepted for the bachelor of music in performance studies by audition before the area faculty. The acceptance audition may be held at the time of the initial audition and placement examinations or during the course of degree study. It is highly recommended that the acceptance audition take place during the freshman year. Acceptance later than the freshman year may necessitate studies beyond the fourth year to meet repertoire and performance area standards.

Upon acceptance the student, in counsel with an adviser, develops a course of study based on degree requirements and the student's needs.

All performance studies majors are expected to participate in appropriate ensemble experiences each semester of registration: i.e., strings in orchestra; winds, brass, and percussion in band or orchestra; voice in choral ensembles or opera workshop; piano in appropriate accompanying assignments.

**Juries**

Each student in performance studies must have an area of emphasis (instrumental, keyboard, or vocal option) and must pass an examination in that option at jury times. Juries occur at selected times and are posted for each academic year. Failure to meet expected standards in a jury results in probationary status for one semester at the end of which significant improvement must be demonstrated or the student will be dismissed from the performance studies degree program. If a student wishes to change an area of emphasis or degree program, it must be with the approval of the chair of performance studies and the appropriate faculty.

**Recital**

A full recital (or its equivalent) is required of all performance studies majors. This is usually given in the senior year. Permission to perform a recital is given by the appropriate performance studies faculty and is based upon the student's performance at a recital jury.

A student must be registered for applied study in the semester when the recital is presented.

**General education requirements****Group I: Communication**

Each student must complete English 112 or the equivalent. Total: 3 hours.

**Group II: Foreign language or cultural experience**

For voice majors, the freshman minimum sequence is FREN 101, 102, GERM 101, 102. See also Group V.

**Group III: Mathematics and natural science**

Each student must complete at least one course in science or math. PHYS 350 is recommended. Total: 3 hours.

**Group IV: Social sciences**

Each student must complete at least one course selected from: ECON, GEOG, POLS, HIST, SOC, PSYC or anthropology. Total: 3 hours.

**Group V: Arts and humanities**

Each student must complete the music history sequence (MUCH, non-western music); one course in ENG literature, and at least one course in fine arts (excluding music), speech/theater, PHIL or foreign language. Total: 8 hours.

**Total requirements**

In addition each student must complete 2 hours of PEG 100 and elect a sufficient number of courses from the above groups (or courses approved by the chair of performance studies) to total 35-36 hours.

A total of 6 hours in music courses not required for the degree may apply to Group II or V.

More than the 122 total hours minimum may be required for specific performance studies degree options:

**Performance studies options****Church music****Instrumental**

Brass

Harp

Percussion

String

Woodwind

**Keyboard**

Harpsichord

Organ

Piano Accompanying

Piano Literature

Piano Pedagogy

**Musical theater****Voice****Jazz (minor only)****Church music option (organ or voice)**

Before the end of the freshman year each candidate for the degree of bachelor of music with a major in church music should meet with an adviser to develop a course of study which will satisfy the group and music requirements in this program. Each student is expected to participate in the music program of a church of his or her choice and to give a senior recital.

**Suggested program (124 hours)***First year (33 hours)*

MUCH 131, 132, 141, 142 (12)

ENG literature (3)

Group IV requirements (HIST 151 recommended) (3)

Ensemble (choral) (2)

MUSP 263 or 272 (4 for major area, 2 hours for minor area) (6)

ENG 112 (3)

PEG 100 (2)

Piano or proficiency (2)

*Second year* (31 hours)

MUCH 231, 232, 241, and 242 (9)

GERM 101 and 102 (8)

Group III requirements (PHYS 350 recommended) (3)

Ensemble (choral) (2)

MUSP 263 or 272 (4 hours for major area, 2 hours for minor area) (6)

Electives (3)

*Third year* (30-31 hours)

Group V electives (5-6)

MUSP 215-216 or 311-312 (4)

MUSP 463 or 472 (4)

Ensemble (choral) (2)

FREN 101 and 102 (8)

MUSP 305 and 306 (4)

Electives (3)

*Fourth year* (30 hours)

MUCH 403, 404 and 407 (6)

MUSP 415 and 416 (4)

MUSP 396 and 397 (4)

MUSP 463 or 472 (4)

MUED 340, 359 (4)

Ensemble (choral) (2)

Recital (1)

Electives (5)

## **Instrumental option**

**Suggested program** (124 hours)

*First year* (32 hours)

Instrument (8)

MUCH 131, 132, 141, and 142 (12)

Piano (proficiency) (1)

Large ensemble (4)

ENG 112 (3)

ENG literature (3)

PEG 100 (1)

*Second year* (33-34 hours)

Instrument (8)

MUCH 231, 232, 241, 242 and 236 or 237 (11-12)

Group V requirements (3)

Group III requirements (3)

Large ensemble (4)

Piano (proficiency) (1)

Group IV requirements (3)

*Third year* (29-30 hours)

Instrument (8)

MUSP 305 (2)

Large ensemble (4)

Small ensemble (2)

Group V requirements (2-3)

Electives (music and non-music) (10)

PEG 100 (1)

*Fourth year* (29 hours)

Instrument (8)

Small ensemble (2)

MUCH 315 or 320 (2)

Electives (music and non-music) (6)

Recital (1)

Pedagogy (2)

Large ensemble (4)

MUCH 318 and 408 (4)

## **Keyboard Option (Piano Literature)**

**Suggested program** (122 hours)

*First year* (32 hours)

MUCH 131, 132, 141, 142 (12)

ENG 112 (3)

MUCH 261 (8)

Group III requirements (3)

ENG literature (3)

PEG 100 (2)

MUSP 160 (1)

*Second year* (33 hours)

MUCH 231, 232, 241, 242 (9)

Group V requirements (3)

MUSP 264 (1)

Electives (3)

MUSP 261 (8)

Group IV requirements (3)

MUSP 210 and 211 (6)

*Third year* (28-30 hours)

MUCH 236 or 237 (2-3)

MUCH 403 or 404 (2)

MUSP 361, 362, 367, and 467 (6)

MUSP 461 (8)

MUSP 300 (mixed chamber ensemble) (2)

Group V electives (2-3)

Electives (6)

*Fourth year* (28 hours)

MUCH 315, 407, 408 and 410 (8)

MUCH 300- or 400-level literature (2)

MUSP 300 accompanying practicum (1)

Recital (1)

MUSP 466 (1)

MUSP 461 (8)

Electives (7)

## **Voice option**

**Suggested program** (124 hours)

*First year* (35 hours)

MUSP 272 (6)

MUCH 131, 132, 141 and 142 (12)

ENG Literature (3)

Ensemble (2)

Group III requirements (3)

Piano or proficiency (2)

ENG 112 (3)

MUSP 214 (2)

MUSP 275 (2)

*Second year* (34 hours)

MUSP 272 (8)

Piano or proficiency (2)

GERM 101 and 102 (8)

Group IV requirements (3)

MUCH 231, 232, 241, 242 (9)

Ensemble (2)

PEG 100 (2)

*Third year* (28-30 hours)

MUSP 472 (8)

FREN 101 and 102 (8)

MUCH 236 or 237 (2-3)

Group V requirements (5-6)

Ensemble (2)

Electives (music and non-music) (3)

*Fourth year* (26 hours)

MUSP 472 (8)

MUSP 378 (4)

Recital (1)

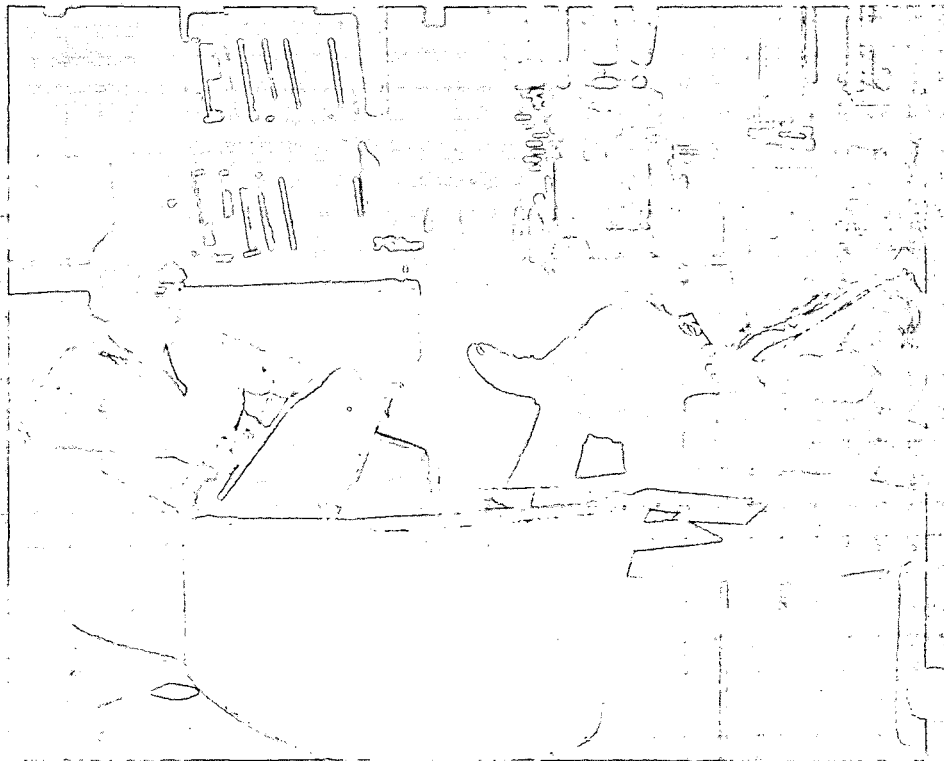
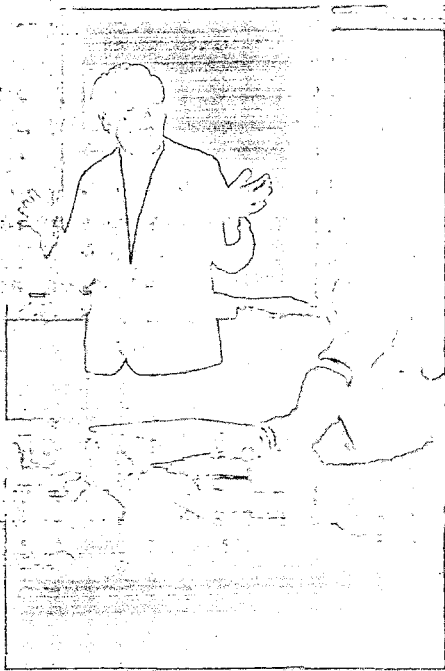
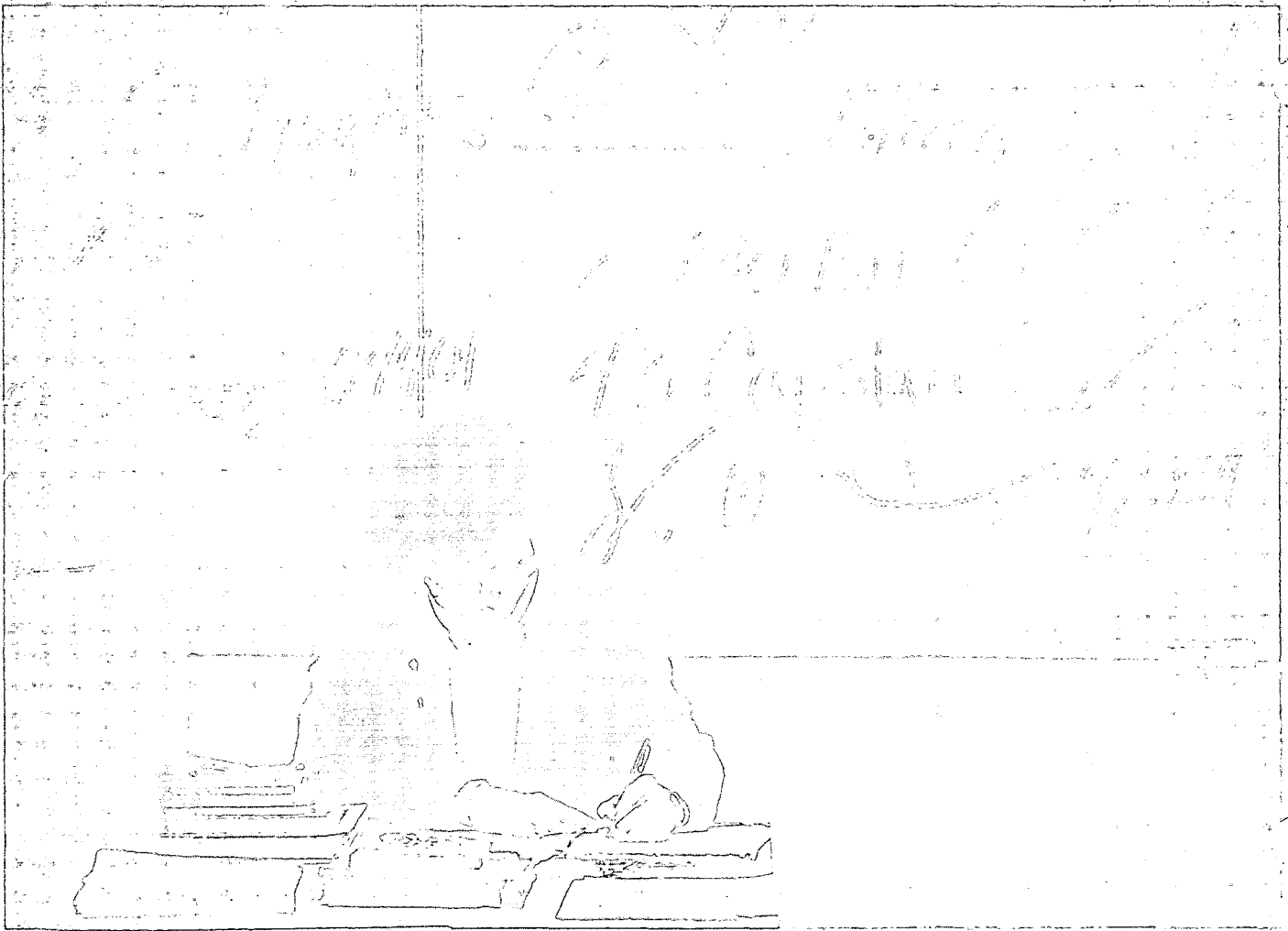
MUCH 412 (2)

MUSP 305, 311, 312 (6)

Electives (music and non-music) (5)

## **Other programs**

A program in music is also offered through the College of Arts and Sciences.



# Firelands College

Telephone: (419) 433-5560

Algae P. Adams, dean, 122 East Building  
Richard A. Paulsen, assistant dean, 112 East Building

Catherine Dyer, director of student services, 139 North Building

John P. Hartung, director of admissions and registration, 114 East Building

James H. McBride, coordinator for community services, 162 North Building

Timothy H. Smith, coordinator of public relations, 110 East Building

Charles C. Stocker, business manager, 101 East Building

Terrence Bahn, coordinator of program advisement, 136 North Building

Linda F. Smith, assistant to the director of admissions, 106 East Building

Joseph J. O'Loughlin III, director of computer services, 233 North Building

## The College

Firelands College is a state-assisted, regional branch campus and college of Bowling Green State University. The campus is located at the Rye Beach Road intersection of State Route 2 and U.S. Route 6 in Huron, Ohio.

Firelands College offers a variety of pre-baccalaureate and two-year associate degree programs, and extension and lifelong learning courses. A major emphasis at Firelands is the offering of university instruction by a qualified university faculty. Firelands combines university instruction with an academic climate and size conducive to close contact and interaction among students, faculty and the community.

The college is student-oriented and endeavors to provide the academic atmosphere, the human association and the discipline vital to a student's total development.

Firelands College interprets its mission through activities related to its students, to the community it serves and to its faculty and staff. It recognizes, through its activities, the need for open interaction among all facets of the college community.

## Firelands library

The Firelands College Library functions as an integral part of the educational process. The collection of more than 30,000 books, 350 current periodical and newspaper subscriptions and a wide variety of audio-visual materials enhances the instructional program and provides additional resources for

use by members of the community. The collections of the University Libraries in Bowling Green are also made available to Firelands College students through a regular shuttle service.

The library handbook, revised annually, contains specific information on the services of the library and instructional media center as well as a general introduction to the use of library research tools. Instruction in library usage is offered throughout the academic year.

## Admissions

The procedure for admission to Bowling Green State University is, described on page 19 of this catalog. Students seeking admission to Firelands College should follow the same procedure.

For specific information, tours or an admissions interview, contact the Firelands Admissions Office, 901 Rye Beach Road, Huron, Ohio 44839.

## Housing

A wide variety of reasonably priced housing options is available throughout the Firelands area. The Firelands Admissions Office maintains a list of available housing which includes rooms, apartments, houses and motels.

Because the population in the area increases in the summer, many housing options in the local community are available at very reasonable rates during the academic year. Students should, however, plan to provide their own transportation to and from Firelands College. For further information or a complete housing list, contact the Firelands Admissions Office.

## Registration

The Office of Registration at Firelands is responsible for the coordination of all registration and bursar-related functions for Firelands students. Student concerns relative to academic policies, registration for classes, payment of fees, and academic records should be addressed to this office, 104 East Building.

## Computer services

Firelands College's access to large-scale computers on the main campus as well as local on-site mini- and micro-computers

provides students, faculty, and staff with diverse computing capabilities. Via a remote job entry facility and interactive terminals, Firelands has access to software on the IBM 370/158 and the DEC System 2060 on the main campus. Locally, various micro-computers, located in the computer science laboratory, are available for instructional use and/or program preparation. Firelands also maintains a facility for computer-assisted instruction.

## Student services

Firelands College provides a variety of student services which include career development and placement; counseling; tutoring; program advisement; and developmental education opportunities. The Student Services Office maintains day and evening hours to accommodate all students.

*Career Development and Placement Services* provide group and individual counseling in career planning, decision making, resume writing, interviewing and job placement.

*Counseling Services* provide assistance in educational and career planning as well as in personal and social concerns. A variety of developmental and skill-oriented workshops focus on such topics as effective study habits, test anxiety, interpersonal relations, assertiveness training and career exploration.

*Tutoring.* Recognizing that students may, occasionally, experience academic difficulties in a particular area of study, Firelands College offers a tutoring program at no charge. Students are eligible to receive tutoring services following a conference with their individual instructors. Student tutors are approved by faculty members. This service is coordinated through the Student Services Office of Firelands College.

*Program advisement* is another important aspect of student services at Firelands.

Each student who enrolls in college-level work has certain needs, expectations, skills and goals. Realizing how these factors interrelate with the demands of college-level work is vital to the ultimate success of the student. Academic advising at Firelands College provides the opportunity for students to gather information about various fields of study available through Bowling Green State University. Students who are admitted to pre-baccalaureate or associate degree programs are assigned to advisers



at Firelands. While all students are encouraged to make regular contact with their advisers, all freshmen and sophomores must meet with their advisers every semester to plan course schedules.

Students who enroll at Firelands College without specifically defined goals have the opportunity to discuss their interests and objectives with the Program Advisement Office at Firelands College. Special guidance is also available for students who are returning to school after a lengthy absence.

Information on academic programs, career and interest testing, library reference materials and skill development is available throughout the Firelands College community. Representatives from the University's main campus are available at specific times throughout the academic year to provide information on four-year baccalaureate degree programs.

*Developmental Education Opportunities* are also available for students who encounter learning situations for which they have less than the necessary skills because of inadequate preparation, lengthy absence from the academic environment or encounters with new or difficult tasks.

A variety of support opportunities are available to students who desire or need supplemental assistance with basic skills preparation. Open laboratories are available in reading and mathematics. In addition, courses are offered which help students improve basic skills in writing, studying, mathematics and reading for comprehension.

## Cooperative education

Cooperative education integrates classroom theory with on-the-job training, either in business, government, industry or the nonprofit sector.

Every effort is made to place students in assignments compatible with their academic programs and career goals. Employers are responsible for assigning, supervising and evaluating work assignments and for paying students fair wages. Assignments are monitored by the College.

Cooperative education is open to students in all programs. Application should be made at least one semester prior to the anticipated assignment. Interested students should contact the Student Services Office in the West Building.

## Student life and activities

Firelands College offers students cocurricular opportunities for personal growth and development. Social, cultural and athletic programs are sponsored by the Student Activities Office, various student organizations and academic departments of the University. An opportunity for self-government is afforded students through elected representatives or by election to office. Many academic departments and student groups provide additional opportunities for learning through lectures, seminars and activity programs. A committee composed of students and faculty advisers develops a calendar of activities and events each year. Chartered

clubs and organizations include:

Black Student Union  
Firelands College Theater  
Firelands Environmental Club  
Firelands Express Dance Club/Drill Team  
Firelands Film Factory  
Intramurals  
More Mature Element  
Phi Beta Lambda  
Ski Club  
Social Science Club  
Society of Manufacturing Engineers  
Speech Activities Organization  
Student Advisory Board  
Weight Club

## Financial aid and scholarships

The Financial Aid Office, 104 East Building, coordinates all Pell Grants, Ohio Instructional Grants (OIG), National Direct Student Loans (NDSL), and the campus-based scholarship programs.

### Scholarships

Numerous annual scholarships are administered by Firelands College. Applications for these scholarships are available from the Financial Aid, Admissions or Community Services Offices and must be filed by April 1 to be considered for the next academic year. Special need analysis forms are not required for scholarships administered directly by the Firelands College, which include:

BGSU Alumni Association  
Central Soya Company  
James E. Cole Memorial  
Erie County Bank  
Erie County Board of Realtors  
John F. and Doris H. Ernsthansen Memorial  
Firelands Area Chapter BGSU Alumni Association  
Thomas J. Hanlon Memorial  
Harlequins Founders'  
Huron Junior Women's League  
Huron Police Association  
Huron Rotary Club  
Huron Welcome Wagon Club  
Third and Fourth Degrees of Sandusky  
Knights of Columbus, Firelands Shrine Club, and Singara Grotto  
Midwest Bank and Trust Company Firelands Offices  
Milan Chamber of Commerce  
Milan Mothers Club  
William J. Parker Family  
Pilgrims Opportunities, Inc.  
Sandusky Exchange Club  
Sandusky Register  
Lyle L. Speer Memorial  
Student Advisory Board of Firelands College  
Dr. Carl R. Swanbeck Memorial  
Robert W. Traver Memorial

### Emergency loan funds

The objective of the Firelands College Emergency Loan Fund Program is to assist students who, for one reason or another, find it extremely difficult or impossible to make payment for University instructional and general fees by the payment date.

### Amount of loan

The maximum loan that may be granted is \$250. The amount of the loan is contingent upon the time of application and is determined by the person administering the loan fund. All loans of \$250 need the approval of the loan committee and require a cosignature.

### Student qualifications

The emergency loan program is available to continuing Firelands College students who have at least a 2.0 (C) accumulative grade point average. Exceptions to these criteria may be considered on an individual basis. Transient students are not eligible for a loan under any circumstances.

### Repayment deadline

All loans during any semester become due as specified in the loan agreement. Students may request an extension from the loan committee.

### Finance charge

The finance charge for all loans is as follows:

Loan	Finance Charge
\$1-\$50	\$1
\$51-\$99	\$5
\$100-\$250	\$7.50

### Late payment

Students who fail to repay emergency loans by the date due are charged a late payment fine. Fines are assessed at a rate of \$25 per day (including Saturdays and Sundays), but will not exceed \$15. Students are granted a three-day grace period. If payment is not made during the grace period, the fine on the fourth day is \$1.

### Non-payment

Students not repaying loans by the end of the grace period (three days after the due date) will have their class registration for that semester cancelled and all records in the Office of the Registrar frozen. Also, they will be denied registration for any future semesters until the loan and penalty are repaid.

### Other loans

#### Harry G. Bearé Memorial loan fund

This loan is available to Firelands College students who are graduates, or candidates for graduation, from Edison High School in Milan. The loan is based on proven financial need and is interest free. However, it is suggested that the student make a gift to the loan fund after repayment of the loan.

#### Kiwanis Club of Sandusky loan program

The Kiwanis Club of Sandusky has a loan program available to any student in the Firelands College area. A student may negotiate a loan up to \$250 per year which is interest-free while the student is in school. An interest rate of six percent per annum is charged once the student is no longer enrolled at the University. Early repayment of the loan is encouraged after the student's graduation or termination of enrollment in order to allow financial assistance to other students.

#### V.F.W. Post No. 2743 loan fund

The Norwalk Post No. 2743 of the Veterans of Foreign Wars has established a loan fund for Firelands College students. Loans are individually negotiated and no interest is charged when terms of the loan are met.

The loan is administered by an agent of the veteran's organization; however, information is available at the Firelands College Financial Aid Office.

### **Third and Fourth Degrees of Sandusky Knights of Columbus, Firelands Shrine Club, and Singara Grotto loan fund**

Loan funds have been provided by these organizations since Firelands College was opened. Typically, the loans are for up to \$250 and are issued for short periods of time — emergency types of loans. Early repayment is encouraged and a small service charge is assessed.

## **Academic objectives and organization**

Firelands is organized as a college of Bowling Green State University. The college has three academic departments: applied sciences, humanities, and natural and social sciences. The departments are structured by academic discipline as follows:

### **Applied sciences**

Business management  
Computer science  
Design technology  
Economics  
Electronic technology  
Environmental health  
Industrial engineering technology  
Information systems  
Manufacturing technology  
Medical record technology  
Statistics  
Technology, general

### **Humanities**

Art  
Creative writing  
Education  
English  
French  
Health  
Journalism  
Librarianship  
Music  
Philosophy  
Physical education  
Spanish  
Speech communication  
Theater arts

### **Natural and social sciences**

Biology  
Chemistry  
Geography  
Geology  
History  
Home economics  
Human services  
Mathematics  
Physics  
Political science  
Psychology  
Sociology

### **Pre-baccalaureate courses**

Firelands College offers a wide variety of courses that can be applied to most baccalaureate majors available at the Bowling Green campus. Because Firelands College does not offer the baccalaureate degree, a student who plans to complete the degree at Bowling Green State University must complete a minimum of 20 semester hours of credit in upper-division courses on the campus in Bowling Green.

Students who are interested in completing a baccalaureate degree at Bowling Green should consult the appropriate section of this catalog for a complete program description. These students should work closely with their academic advisers at Firelands and the main campus to ensure completion of appropriate group requirements for the degree sought.

### **General education requirements**

A university education is more than the learning of skills appropriate to a career or job. The acquisition of knowledge from such areas as the humanities and the natural and social sciences contribute to the foundation of the well-educated person. Through the courses of the general education requirements, students discover their values and gain insight into the challenges of the future.

Designed to contribute to the foundation of the baccalaureate degree programs, these requirements add breadth to the major field selected by the student. The requirements are grouped into four areas: language, humanities, social science and mathematics-physical sciences.

A wide variety of general education courses are available at Firelands. These courses can be used to meet the appropriate group requirements in baccalaureate and associate of arts degree programs.

### **Upper-division courses**

Firelands College primarily serves the educational needs of a student in the freshman and sophomore years of college. However, the college does provide opportunities for some study at the junior, senior and graduate levels.

### **Lifelong learning (noncredit) courses**

The Office for Community Services offers a wide variety of lifelong learning (noncredit) courses, workshops and seminars. The chief purpose of the offerings is to provide area residents with opportunities to develop new skills or to stimulate new interests. Special workshops and seminars are also offered in many topical areas, such as management, education, computers, industrial education and technology and environmental quality control.

Lifelong learning courses, workshops, seminars and in-service training programs may be organized for a particular firm, school, organization or interest group. Inquiries relative to the offering of such specific programs should be directed to the Office for Community Services at Firelands College.

## **Associate degree programs**

Four associate degrees are offered by Firelands College: associate of arts; associate of applied science; associate of applied business; and associate of science. The associate of arts and associate of science programs are designed to fulfill the first two years of a baccalaureate degree, but may

also serve as terminal programs for students who do not plan to complete a four-year degree. The associate of applied business and associate of applied science degrees are primarily intended to prepare students for employment upon graduation. Although termed career education, they are articulated with similarly oriented four-year programs, thus permitting a student to continue toward a baccalaureate degree in related disciplines.

Students who seek an associate degree must complete both general and specific requirements for the degree sought.

### **General requirements**

A candidate for an associate degree at Firelands College must satisfy the general requirements listed on page 8 of this catalog.

Those with an American College Test score of 20 or below must complete ENG 111 before taking 112. Those with an ACT score of 11 or below must complete both ENG 110 and/or 111 before taking 112. Equivalent Career Planning Profile scores may be used for English placement upon the recommendation of the director of student services. No more than six credit hours of basic writing from ENG 110, 111, and 112 may be applied toward graduation.

### **Residency requirement**

Students who seek an associate degree from Firelands must complete at least 20 of their final 24 hours of credit at BGSU. Students who choose to complete their residency requirement at a BGSU college other than Firelands must also complete 20 hours at the Firelands campus. Neither transfer credits from a college or university outside BGSU nor credits by examination will be accepted toward completion of the residency requirement.

## **Associate of Arts**

Firelands College offers two years of general education courses leading to the associate of arts degree. Students who complete the associate of arts degree have reached the half-way point in the progression toward a baccalaureate degree.

The associate of arts degree program is designed to provide pre-baccalaureate students with a sound academic background in a number of academic disciplines. Credits earned may be transferred to four-year programs. The intent is to provide a liberal background within a two-year program. General education programs have been developed in the following areas:

Elementary education  
Humanities  
Human services  
Liberal studies  
Pre-business administration  
Secondary education  
Social science

### **Associate of Arts requirements**

This degree is awarded to a student who completes one of the prescribed curricula,

including the general education requirements listed below and complies with general degree requirements cited previously.

#### **Communication**

Each student is required to acquire proficiency in written expression and oral communication. ENG 112 and SPCH 102 are required.

#### **Mathematics and science**

Each student must complete a minimum of nine credit hours in mathematics and science.

#### **Social sciences**

Each student must complete a minimum of 10 credit hours in courses designated social science.

#### **Fine and applied arts**

Each student must complete a minimum of 10 credit hours in courses designated fine and applied arts including at least one course in ENG literature.

#### **Physical education**

Two academic semesters of physical education (PEG 100) are required, for a minimum of two credits. This requirement may be waived if a student has attained the age of 21 at the time of initial registration, has a written statement from a personal physician, or is a veteran of the military service. Exemption from physical education does not excuse a student from meeting the 62 semester hours required for graduation.

#### **Electives**

Each student must select a sufficient number of electives to earn a minimum of 62 hours. A student planning to pursue a baccalaureate degree in arts and sciences is encouraged to take a foreign language.

#### **Elementary education**

This curriculum provides courses prescribed by colleges of education to students seeking certification in elementary education. These courses are those in the first two years of the program and insure a broad background of study. In addition to the associate of arts general requirements, students must complete the following:

##### **Communication**

See general education requirements for associate of arts programs. Six hours minimum.

##### **Mathematics and science**

MATH 241 and 242 and BIOL 101 or 104. Two courses from the following: CHEM 104, GEOL 101, PHYS 104. Total requirement of 14 hours.

##### **Social and behavioral sciences**

All courses listed below plus one additional social science course, except from geography or history. Twenty hours minimum.

GEOG 121 and 122 (4)

HIST 205 and 206 (6)

HIST 151 or 152 (3)

PSYC 201 (4)

Social science elective (3)

##### **Fine and applied arts**

ART 101 and an ENG literature course. Two additional courses must be selected from art, business education, English, French, home economics, technical courses, philosophy, Spanish, and speech.

Ten hours minimum. THEA 202 and PHIL 103 are recommended.

#### **Other requirements**

PEG 100 (2)

#### **Humanities**

This degree program provides the foundation for a bachelor of arts program with concentrations in humanities. In addition to the associate of arts general requirements, students must complete the following:

##### **Communication**

See general education requirements for associate of arts programs. Six hours minimum.

##### **Mathematics and science**

Each student must complete both (A) and (B) below. Nine hours minimum.

A. One of the following:

1. Three and one-half years of high school mathematics or equivalent proficiency as demonstrated on a placement test.
2. MATH 121, and one of the following: PHIL 103, or CS 100, 101, or 103.
3. Three years of high school mathematics and CS 100, or 101, or 103.
4. MATH 115, 124 or 130.

B. At least two courses elected from biological sciences, chemistry, geology, physical geography (GEOG 125, 126, 127, 213). At least one course must be for laboratory credit.

Students who plan to pursue bachelor of fine arts or bachelor of arts in communication degree programs at Bowling Green State University may elect to follow the Group III mathematics and science requirements for those degrees.

##### **Social and behavioral science**

Each student must complete a minimum of 10 hours from at least two disciplines including a minimum of six hours in one discipline. Eligible disciplines include: economics, geography, history, political science, psychology, social geography and sociology.

##### **Fine and applied arts**

Each student must complete HUM 101 and a minimum of 16 hours from at least three of the following disciplines: art, humanities, literature, philosophy (except PHIL 103, when used to apply to mathematics/science requirements), theatre, film, music, popular culture and American studies. One course in literature and one course in the fine arts (art, music, theatre, film) must be included. See the College of Arts and Sciences Group V listing of approved courses.

#### **Human services**

This program prepares students for employment as paraprofessionals in social service agencies. It also provides a means for those currently employed in agencies and organizations to improve their proficiencies and qualify for promotions.

The two-year degree program combines academic courses and supervised field experiences and may be applied toward several baccalaureate community services programs offered by the College of Health and Community Services. In addition to the

associate of arts general requirements, students must complete the following:

#### **Communication**

See general education requirements for associate of arts programs. Six hours minimum. In addition, IPCO 203 is required.

#### **Mathematics and science**

A minimum of nine credit hours in mathematics and science. MATH 115 is required. Science courses may be selected from biology, chemistry, geology, physical geography, CS 100 and physics.

#### **Social and behavioral sciences**

A minimum of 19 hours in social and behavioral areas. Required courses are: PSYC 201, 303; SOC 101, 202, or 316 and 361 (or HOEC 105); SOWK 220.

#### **Fine and applied arts**

PHIL 102, BUSE 335, SOWK 110, ENG literature. Total: 11 hours.

#### **Other requirements**

SOSC 289 (3-4) PEG 100 (2)

##### **Core Electives**

Choose six hours from CEO 121, IPCO 306, PHIL 319, POLS 201, PSYC 305, PSYC 405, SOC 316, SOC 361, SOC 441, SOC 301 (or PSYC 311)

#### **Field experience**

Thirty volunteer hours in a supervised field experience is one of the requirements for SOWK 220. During the student's second year, a 15-week supervised field experience at a campus-approved agency is required. Three or four credit hours (SOSC 289) may be earned depending on the number of weekly hours of the field experience. A weekly seminar in human services is also part of the SOSC 289 course.

#### **Liberal studies**

This curriculum allows the undecided student to sample a variety of disciplines while insuring a well-rounded background. A student may obtain a degree in liberal studies and a foundation in journalism or another profession or a two-year terminal degree. In addition to the associate of arts general requirements, students must complete the following:

##### **Communication**

See general education requirements for Associate of Arts programs. Six hours minimum.

##### **Mathematics and science**

A minimum of 10 hours in at least two sciences or a science and a mathematics combination.

##### **Social and behavioral sciences**

A minimum of 10 hours chosen from: economics, geography, history, political science, psychology, and sociology.

##### **Fine and applied arts**

Each student must complete both (A) and (B).

A. *Fine Arts and Humanities*: HUM 101 and a minimum of 7 hours from at least two of the following: art, film, humanities, English, music, philosophy (except PHIL 103 when used to apply to math and science requirements), popular culture, theatre and American studies. One course in ENG literature must be included.

B. *Applied Arts*: a minimum of two hours from: business education, environmental health, health education, home economics, technical education or journalism.

#### Other requirements

In addition, each student must complete 16 hours at the 200 level.

#### Pre-business

This program of study includes the general education requirements and offers business foundations in mathematics, accounting, economics and statistics. In addition to the associate of arts general requirements, students must complete the following:

#### Communication

See general education requirements for associate of arts programs. SPCH 102 and one additional course in speech communication are required. Nine hours minimum.

#### Mathematics and science

A minimum of 17 hours including STAT 211 and 212, MIS 200 and one of the following:

- A. MATH 124 and 125 (8 hours); or  
B. MATH 131 and 232 (10 hours).

#### Social and behavioral sciences

A minimum of 16 hours including PSYC 201 or SOC 101, and ECON 202 and 203. The remainder may be chosen from geography, history, political science, psychology and sociology.

#### Fine and applied arts

A minimum of 10 hours from at least two of the following departments: art, foreign language, English, philosophy and speech. One course in ENG literature must be included.

#### Other requirements

Each student must complete ACCT 221 and 222.

#### Secondary education

Students in this program have the opportunity to complete the general education requirements of colleges of education and to meet major and minor requirements in courses offered at Firelands College. In addition to the associate of arts general requirements, students must complete the following:

#### Communication

See general education requirements for Associate of Arts programs. Six hours minimum.

#### Mathematics and science

A minimum of nine hours in at least two sciences or a science and a mathematics combination.

#### Social and behavioral sciences

A minimum of 13 hours, including PSYC 201, chosen from the following disciplines: economics, geography, history, political science, psychology and sociology.

#### Fine and applied arts

A minimum of 10 hours from at least two of the following disciplines: art, business education, English, French, home economics, technology courses, philosophy, Spanish and speech. One course in English literature must be included.

#### Other requirements

Each student should consult an adviser for information concerning courses required in various secondary teaching fields.

### Social science

This curriculum offers the foundation of a bachelor of arts degree program in geography, history, political science, psychology, sociology or liberal studies. In addition to the associate of arts general requirements, students must complete the following:

#### Communication

See general education requirements for associate of arts program. Six hours minimum.

#### Mathematics and science

Both (A) and (B) below. Fifteen hours minimum.

#### A. One of the following:

1. Three and one half years of high school mathematics or equivalent proficiency as demonstrated on a placement test.
2. MATH 115, 124, or 130.
3. MATH 121, and one of the following: PHIL 103, CS 100, 101 or 103.
4. Three years of high school mathematics and CS 100, 101 or 103.

B. At least two courses elected from biological sciences, chemistry, geology, physics or physical geography (GEOG 125, 126, 127, 213). One course must be approved for laboratory credit.

#### Social and behavioral sciences

A minimum of 20 hours from at least three of the following disciplines: anthropology, economics, history, social geography, psychology and sociology. Students should also have an area of concentration from one of these disciplines.

#### Fine and applied arts

A minimum of 10 hours from at least two of the following: art, film, literature, music, philosophy (except PHIL 103 when used to apply to mathematics/science requirements), popular culture, speech and theatre. One course in literature must be included; a course in the fine arts (art, film, music, or theatre) is highly recommended. (See College of Arts and Sciences listings for Group V courses.)

## Associate of applied business

Two-year, career-oriented curricula are available leading to the associate of applied business degree. These programs prepare students for immediate employment in area communities and elsewhere, and also may be transferred to similarly oriented baccalaureate degree programs.

Usually, general education requirements are not part of the curriculum. Those general education courses that are taken are in some related general education field (such as English, speech, psychology), in appropriately related disciplines (such as applied mathematics and science, physical science) and in specific major areas (such as business management, secretarial technologies).

Applied business programs offered at

Firelands include:  
Business management technology  
Computer science technology  
Executive secretarial technology

### Associate of applied business requirements

This degree is awarded to a student who successfully completes the career-oriented programs listed below and the general associate degree requirements listed on page 8.

### Business management technology

Majors within this program are accounting, banking and finance, business management, food service/restaurant management and real estate/professional management.

#### Accounting

Richard Highfield, program director  
320-E West Building

#### Planned program

This program prepares students for paraprofessional positions in industrial, public or governmental accounting. It is designed to provide the graduate with theoretical and practical accounting knowledge and skills required of business personnel in today's economy. Many of the courses in the two-year accounting program are applicable to the four-year baccalaureate degree in business.

#### First year

*General education*  
ENG 111 and/or 112 (3-6)  
SPCH 102 (3)

#### Basic courses

MIS 200 (3)  
MATH 124 and 125 (8)

#### Core courses

ACCT 221 and 222 (6)  
ACT 231\* (3)  
BAT 102 (3)

#### Second year

*General education*  
SOC 101 or PSYC 201 (3-4)  
ECON 202 and 203 (6)  
BA 203 (3)

#### Basic courses

STAT 211 (3)

#### Core courses

ACT 241\* and 251\* (6)  
BAT 201, 204, 207, and 291 (13)

\*Designed only for the associate degree in accounting.

### Banking and finance

Jeffrey N. Krabill, program director  
311-A West Building

#### Planned program

This program is designed to prepare students for careers in the banking and financial industries. The program is planned to fit the needs of students whose work necessitates a part-time schedule. The program emphasizes management, finance, accounting, and banking skills dealing with operations, loans, trusts and consumer services. Many of the courses in the two-year banking and finance program are applicable to the four-year baccalaureate degree in business.

#### First year

*General education*  
ENG 111 and/or 112 (3-6)  
ECON 200 (3)  
SPCH 102 (3)

Social science elective (3)

**Basic courses**

MATH 127 (3)  
MATH elective (3)  
MIS 200 (3)

**Core courses**

BAT 201, 204, 210,\* 211,\* and 291 (15)

**Second year****Basic courses**

LEGS 301 (3)  
Computer elective (3-4)  
MKT 340 (3)  
ACCT 221 and 222 (6)

**Core courses**

BAT 205, 207, 212,\* 213,\* 214,\* and 291 (16)

\*Offered in consortium with the American Institute of Banking.

**Business management**

Jeffrey N. Krabill, program director  
311-A West Building

**Planned program**

Persons completing the business management technology program are involved in the management of both human and capital resources. Their work may include personnel administration, operations and production supervision, marketing, business research, financial management, accounting or the small business environment. Career opportunities exist in the industrial sector, private service firms, governmental agencies and nonprofit organizations.

**First year****General education**

ENG 111 and/or ENG 112 (3-6)  
SPCH 102 (3)  
Electives (3-4)

**Basic courses**

MATH 127 (3)  
MIS 200 (3)  
STAT 211 (3)  
Quantitative elective (3-4)

**Core courses**

BAT 102, 201, 205, and 291 (13)

**Second year****General education**

BA 203 (3)  
ECON 202 and 203 (6)

**Basic courses**

LEGS 301 (3); CST 260 (4)

**Core courses**

ACCT 221 and 222 (6)  
BAT 203, 204, 207, and 291 (12)

**Food service/restaurant management**

Roger Kleckner, program director  
236 North Building

**Planned program**

The one-year program is designed to retrain or upgrade employees already working in this field. It can also be useful to individuals who have graduated from food preparation programs at the high school level. The two-year program is for individuals with no experience in this field. The programs emphasize fundamental communication, management, sanitation, and safety skills required to supervise a food service operation. Career opportunities include positions in fast food operations, catering services, restaurants, institutional food operations and vending operations.

**One-year certificate****General education**

ENG 111 or 112 (3)  
SPCH 102 (3)

**Basic courses**

AMS 100 or BUSE 101 (3)

**Core courses**

BAT 102, 201, 204, 205, 291 (16)  
ENVT 226, 280 (3)

**Two-year program****First year****General education**

ENG 111 and/or 112 (3-6)  
SPCH 102 (3)

**Basic courses**

BUSE 101 and MATH 127 (6)  
HOEC 210 and 212 (6)  
CHEM 115 (4)

**Core courses**

BAT 102, 204, 205 (9)  
ENVT 226, 280 (3)

**Second year****General education**

PSYC 201 (4)  
BA 203 (3)  
LEGS 301 (3)

**Basic courses**

MIS 200 (3)  
HOEC 331 (3)

**Core courses**

ACCT 221 (3)  
BAT 201, 290 and 291 (8)

**Real estate property management**

James McBride, program director  
Office For Community Services,  
North Building

**Planned program**

This program is designed to prepare students for careers in real estate sales and property management. The program is planned to fit the needs of students whose work necessitates a part-time schedule. It is designed to provide the graduate with theoretical and practical skills in real estate appraisal, financial analysis, sales brokerage activities and property management functions for private and commercial investments.

**First year****General education**

ENG 111 and/or ENG 112 (3-6)  
SPCH 102 (3)  
Communication electives (3)

**Basic courses**

MATH 127 (3)  
MIS 200 (3)

**Core courses**

ACCT 221 (3)  
BAT 100, 101, 204, 205, 215 (12)

**Second year****General education**

PHIL 320 (3)  
Choose 2 of the following: (6-7)  
SOC 101, PSYC 201  
ECON 200, GEOG 225

**Basic courses**

CST 260 (4)

**Core courses**

BAT 208, 216, 217, 218, 290, 291 (14)  
MKT 340 (3)

**Computer science technology**

Ronald Willard, program director  
233 North Building

**Planned program**

Computer science technicians are two-year college graduates with an associate of applied business degree. Graduates will have learned principles of computer logic and decision making, computer languages (FORTRAN, COBOL, IBM 360/370 Assembler), advanced programming skills such as structured design, basic system architecture, and techniques of system analysis. Career opportunities exist in business, industry, education, government or public service as application programmers, maintenance programmers or programmer/analysts. In addition, credits received may be applied to a baccalaureate degree in computer science.

**First year****General education**

ENG 111 and/or 112 (3-6)  
PHIL 103 (3)  
SPCH 102 (3)

**Basic courses**

MATH 127 and 130 OR 124 and 125  
OR 131 and 232 (6-10)

**Core courses**

CS 101 (3)  
CST 100, 231, 260 (8)

**Second year****General education**

PSYC 201 (4)

**Basic courses**

ACCT 221 and 222 (6)

**Core courses**

CS 201 (3)  
CST 171, 221 and 232 (6)

**Electives**

MATH/LAB  
SCI/STAT/ACCT (3-4)  
Choose 2 courses from BAT 201, 205 or MIS 200 (6-7)

**Executive secretarial technology**

Teresa A. Marano, program director  
311-B West Building

**Planned program**

The two-year executive secretarial technology program at Firelands College prepares students for secretarial positions in industrial establishments, professional offices and government agencies. Upon successful completion of the two-year program, students receive an associate of applied business degree.

The program is designed to give students skills in secretarial technology and in communication and business theory that enhance students' opportunities for career advancement. The program can meet the needs of both beginning and advanced secretarial students, and credits received may be applied toward a four-year baccalaureate degree in a related field.

In addition to the two-year program, one-year certificate programs are offered in medical secretarial and clerical skills.

**First year***General education*

ENG 111 and/or 112 (3-6)  
SPCH 102 (3)

*Basic courses*

BAT 102 (3)

*Core courses*

BUSE 101, 111, 210, 211, 213, 215, and 220 (19)

**Second year***General education*

PSYC 201 (4), ECON 200 (3)

*Basic courses*

ACCT 221 (3)

MIS 200 (3)

BA 203 (3)

LEGS 301 (3)

*Core courses*

BUSE 240, 301, 311, 335 and 401 (15)

BUSE 314 (2)

**Clerical option**

The one-year clerical program option prepares students for clerk/typist positions. The program is arranged so that credits received in a one-year program may be transferred if a student decides to pursue a two- or four-year degree in a related field. To receive the clerical certificate, the student must have at least a 2.0 grade point average for all work attempted.

**One-year certificate***General education*

ENG 111 and/or 112 (6)  
SPCH 102 (3)

*Basic course*

BAT 102 (3)

*Core courses*

BUSE 101, 111, 210, 211, 220, 314, 335 and 401 (21)

**Medical secretarial option**

Ellen F. Wachs, RRA, program director  
302 West Building

**Planned program**

The medical secretary/transcriptionist is responsible for transcribing medical information and reports from dictating equipment onto paper in a complete and accurate manner. Career opportunities exist in the medical record departments of hospitals, physicians' offices, private clinics and other settings. The program consists essentially of the first year of the medical record technology program, combined with selected courses from the executive secretarial program, and students may continue in either program for an associate degree.

\*Consult adviser to choose appropriate courses if contemplating a baccalaureate degree.

**One-year certificate***General education*

ENG 111 and/or 112 (3-6)

*Basic courses*

MATH 115 (3)

*Core courses*

BUSE 111, 210, and 211 (8)

MRT 100, 101, 102, 201, 290 (14)

**Associate of applied science**

Two-year, career-oriented curricula also exist leading to the associate of applied science degree. These programs prepare students for immediate employment in area

communities and elsewhere, and also may be transferred to similarly oriented baccalaureate degree programs.

Usually, general education requirements are not part of the curriculum. Those general education courses that are taken are in some related general education field (such as English, speech, psychology), in appropriately related disciplines (such as applied mathematics and science, physical science) and in specific major areas (such as environmental health and engineering technologies).

Applied science programs offered at

Firelands include:

Electrical/electronics engineering technology

Environmental health technology

Industrial engineering technology

Manufacturing/industrial technology

Medical record technology

**Associate of applied science requirements**

This degree is awarded to a student who successfully completes one of the career-oriented programs listed below and the general associate degree requirements listed on page 8 of this catalog.

**Electrical/electronics engineering technology**

Majors in this program are biomedical equipment, computer electronics and electrical/electronics engineering. All of these majors can be applied towards a baccalaureate degree in technology.

**Bio-medical equipment technology**

Gerard P. Colgan, program director  
152 North Building

**Planned program**

Program emphasis centers on fundamental communication, hazard recognition, bio-medical electronics, safety and hygiene skills required to identify and prevent potential equipment problems associated with health care facilities. Career opportunities include positions in hospitals, nursing homes, private consulting firms and private equipment manufacturers. The bio-medical technician is capable of assisting hospital and nursing home personnel in setting up and running bio-medical electronics equipment programs. This major can be applied toward the baccalaureate degree in environmental health.

**First year***General education*

ENG 111 (3)

SOC 101 or ECON 200 (3)

*Basic courses*

TECH 121 (3)

PHYS 201 (5)

*Core courses*

ET 100, 147, and 148 (7)

ENVT 270 (3)

**Second year***General education*

ENG 112 (3)

SPCH 102 (3)

PSYC 201 (4)

*Basic courses*

BIOL 104, 331, and 332 (10)

MRT 101 (3), MATH 127 (3)

*Core courses*

ET 244, 247, 248, 249, and 442 (15)

TECH 218 and 291 (5)

**Computer electronic technology**

Gerard P. Colgan, program director  
152 North Building

**Planned program**

Computer electronic technicians are employed in business, government and industry. Their responsibilities include building, installing, maintaining, troubleshooting and repairing computer systems. Due to the complex nature of computer program use and customer relations, most companies seek employees who have earned an associate of applied science degree in electronics and who have a background in computer operation. Demand for computer electronic technicians is expected to continue as business and industry increase productivity through automation.

**First year***General education*

ENG 111 and/or 112 (3)

*Basic courses*

TECH 121 (3)

PHYS 201 (5)

MIS 200 (3)

*Core courses*

ET 100, 147, 148, and 245 (10)

DESN 104 (3)

**Second year***General education*

SPCH 102 (4)

SOC 101 (4)

PSYC 201 (4)

*Core courses*

ET 244, 247, 248, 249, and 442 (15)

TECH 218 and 291 (5)

**Electrical/electronics engineering**

Gerard P. Colgan, program director  
152 North Building

**Planned program**

Academic preparation for this program covers communication systems, computers, instrumentation and measurements, power and energy, materials processing and design and engineering graphics. The program prepares students for positions as engineering assistants, junior engineers, production technicians, instrument calibration and repair technicians, field service technicians, customer service representatives and other entry-level positions in the electronic engineering field.

**First year**

ENG 111 and/or 112 (3-6)

*Basic courses*

TECH 121 (3)

PHYS 201 (5)

*Core courses*

ET 100, 147, 148, and 245 (10)

DESN 104 (3)

MFG 113, 114 (6)

TECH 191 (3)



**Second year***General education*

SPCH 102 (3)  
 SOC 101 or ECON 200 (3)  
 PSYC 201 (4)

*Basic courses*

MIS 200 (3), MATH 127 or 129 (2-3)

*Core courses*

ET 244, 247, 248, and 249 (12)  
 TECH 218 and 291 (5)

## Environmental health technology

Majors within this program are environmental health, occupational health and safety analysis, and water and wastewater treatment. Any of these majors can be applied toward the baccalaureate degree in environmental health.

A one-year option in public health is also offered.

### Environmental health

M. P. Henning III, program director  
 155 North Building

**Planned program**

Environmental health technicians are two-year college graduates with an associate of applied science degree. Their work includes sample collection, analysis and inspection of indoor and outdoor environments for the insuring of compliance with occupational, public health, safety and environmental quality laws. Career opportunities exist in private industry, environmental protection and occupational safety agencies, public health and county engineering departments, pollution analysis laboratories, private consulting firms, water and wastewater treatment facilities and health care institutions.

**First year***General education*

ENG 111 and/or ENG 112 (3-6)

*Basic courses*

CHEM 115 or 125 (4-5)  
 PHYS 201 (5)  
 MATH 127 (3)

*Core courses*

ENVT 121, 160, 211, 226 and 280 (13)

**Second year***General education*

BAT 205 (3), PSYC 201 (4)  
 SOC 101 (3)  
 SPCH 102 (3)

*Basic courses*

CHEM 116 or 126 or PHYS 202 (4-5)

*Core courses*

ENVT 222, 223, 225, 260, 270, 272 and 291 (19)  
 ENVT 261\* (2)  
 ENVT 290\* (1)

\*Optional electives

### Occupational health and safety analysis

M. P. Henning III, program director  
 155 North Building

**Planned program**

The one-year program is designed to retrain or upgrade people already working in this field. The two-year major is for people with no experience in this field. The occupational health and safety technician conducts sample collection, analysis and inspection of the work environment to insure compliance

with occupational health and safety laws for workers on the job. The technician is capable of assisting safety and industrial hygiene personnel in setting up and running an occupational health and safety program in private industry. Career opportunities include positions in private industry, pollution analysis laboratories, private consulting firms, and occupational safety and health agencies.

**One-year certificate***General education*

ENG 111 or 112 (3)  
 SPCH 102 (3)

*Basic courses*

TECH 218 (2)  
 BAT 205 (3)  
 MATH 127 (3)

*Core courses*

ENVT 121, 225, 260, 261, 270 and 272 (5)  
 ENVT 290\* and 291\* (1-4)

**Two-year program****First year***General education*

ENG 111 and/or ENG 112 (3-6)

*Basic courses*

CHEM 115 or 125 (4-5)  
 PHYS 201 (5)  
 MATH 127 (3)

*Core courses*

MFG 113 and 114 (6)  
 ENVT 121, 270 and 272 (7)

**Second year***General education*

BAT 205 (3)  
 SPCH 102 (3)  
 PSYC 201 (4)  
 SOC 101 (3)

*Basic courses*

DESN 104 (3)  
 CHEM 116 or 126 (4-5)  
 TECH 218 (2)

*Core courses*

ENVT 225, 260, 261 and 291 (11)  
 ENVT 290 (1)\*

\*Optional electives

### Public health option

M. P. Henning III, program director  
 155 North Building

**Planned program**

The one-year public health program prepares technicians capable of assisting sanitarians in public health departments. It is designed to retrain or upgrade people already working in this field. Program emphasis centers on communication, microbiology, infection control, hazard recognition, environmental and institutional health, sanitation, and safety skills required to identify and control current problems associated with the health field.

**Public health—one-year certificate***General education*

ENG 111 or ENG 112 (3)  
 SPCH 102 (3)

*Basic courses*

MATH 127 or AMS 100 (3)

*Core courses*

ENVT 121, 160, 211, 223, 225, 226, 270 and 280 (20)

## Water and wastewater treatment

M. P. Henning III, program director  
 155 North Building

**Planned program**

The one-year program is designed to retrain or upgrade people already working in this field. The two-year program is for individuals with no experience in this field. The water and wastewater technician conducts sample collection analysis and inspection of water for process control and for compliance with environmental quality laws. Career opportunities include positions in private industry, environmental protection agencies, county engineering departments, pollution analysis laboratories, private consulting firms, and water and wastewater treatment facilities.

**One-year certificate***General education*

ENG 111 or ENG 112 (3)  
 SPCH 102 (3)

*Basic courses*

MATH 127 or AMS 100 (3)

*Core courses*

ENVT 121, 211, 222, 223, 270, 272 and TECH 218 (20)

**Two-year program****First year***General education*

ENG 111 and 112 (6)

*Basic courses*

CHEM 115 or 125 (4-5)  
 MATH 127 (3)  
 PHYS 201 (5)

*Core courses*

ENVT 121, 222 and 211 (12)

**Second year***General education*

PSYC 201 (4)

SPCH 102 (3)

SOC 101 (3)

*Basic courses*

CHEM 116 or 126 or PHYS 202 (4-5)

*Core courses*

ENVT 223, 270, 272 (9)

ACCT 221 (4)

ET 147 and 148 (6)

TECH 191 and 218 (5)

## Industrial engineering technology

Martin E. Birmingham, program director  
 Library, East Building

**Planned program**

Industrial engineering technicians are graduates of a self-paced program using audio-visual materials and textbooks as learning media. An instructor is available at scheduled times to guide, direct and assist students. The complete program consists of six modules, approximately 1,700 study hours and 100 college credit hours. A student can take any module out of sequence depending upon previous education and experience. Career opportunities exist in industry, business, and institutions using manpower and equipment. Entry may be at the junior engineering level in positions dealing with analysis, job/methods study or operating, using man, material and machine.

Individual modules in this program cover:

The industrial environment  
Time-motion-methods study  
Production planning and quality control  
Facilities planning and maintenance  
Industrial relations  
Advanced topics

Due to the individualized nature of the program, a detailed program sequence may be obtained from the program director.

## Manufacturing/industrial technology

Majors in this program are industrial manufacturing and machine design. Both of these majors can be applied towards a baccalaureate degree in technology.

### Industrial manufacturing

John Kovalchuck, program director  
150 North Building

#### Planned program

Industrial manufacturing technicians are employed in business and in industry. The program is planned to fit the needs of students whose work necessitates a part-time schedule. It is designed to provide the graduate with theoretical and practical skills for assignments in planning, organizing and controlling the manufacturing operation, including supervisory and management techniques and systems used in productions. Special emphasis is placed on computer assisted manufacturing, robotics and plastics technology.

#### First year

*General education*  
ENG 111 and/or ENG 112 (3-6)  
SPCH 102 (3)

*Basic courses*  
MATH 127 (3)  
PHYS 201 (5)  
DESN 104 (3)

*Core courses*  
MFG 113 and 114 (6)  
TECH 191 (3)  
BAT 201 or BAT 205 (3-4)

#### Second year

*General education*  
PSYC 201 (4)  
SOC 101 or ECON 200 (3)

*Basic courses*  
TECH 218 (2), STAT 211 (3)

*Core courses*  
BAT 203 (3)  
ET 147 (3)  
INET 134 and 143 (7)  
MFG 214 (3)  
TECH 291 (3)

Choose 2 of the following:  
DESN 205, 243, INET 135, 242  
MFG 211, 215

### Machine design

John Kovalchuck, program director  
150 North Building

#### Planned program

Machine design technicians are employed in business and in industry. The program is planned to fit the needs of students whose work necessitates a part-time schedule. It is designed to provide the graduate with theoretical and practical skills for employment as

a machine design technician, draftsman or other specialist who requires knowledge of basic machine design principles and machine components. Additional emphasis includes design of jigs, fixtures, dies, tools, mechanical controls and computer-assisted design techniques.

#### First year

*General education*  
ENG 111 and/or ENG 112 (3-6)  
SPCH 102 (3)

*Basic courses*  
MATH 127 (3)  
PHYS 201 (5)  
DESN 104 (3)

*Core courses*  
DESN 204 and 205 (7)  
MFG 113 and 114 (6)  
TECH 191 (3)

#### Second year

*General education*  
PSYC 201 (4)  
SOC 101 or ECON 200 (3)

*Basic courses*  
TECH 218 (2)

*Core courses*  
DESN 202 and 243 (8)  
ET 147 and 148 (6)  
INET 134 (4)  
MFG 214 (3)  
TECH 291 (3)

## Medical record technology

Ellen F. Wachs, RRA, program director  
305 West Building

#### Planned program

Medical record technicians are two-year college graduates who are eligible to sit for the national accreditation examination administered by the American Medical Record Association. After successful completion of the examination, the Accredited Record Technician (ART) is ready to work in the ever-expanding field of medical records. Career opportunities exist in private businesses, as well as in hospitals, extended care facilities and government agencies. Their work includes all aspects of medical record keeping: filing; analyzing; coding; researching; preparing statistics; answering subpoenas and correspondence; indexing; transcribing; auditing; and collecting and presenting medical data, through the use of manual and computerized systems.

#### First year

*General education*  
ENG 111 (3)

*Basic courses*  
MATH 115 or STAT 211 (3)  
BUSE 111 (3)  
BIOL 104, 331, and 332 (10)

*Core courses*  
MRT 100, 101, 102, 112, and 201 (15)  
MRT 290\* and 291\* (1-4)

#### Second year

*General education*  
ENG 112 (3)  
SPCH 102 (3)  
SOC 101 (3)  
PSYC 201 (4)

*Basic courses*  
LEGS 301 (3)  
MIS 200 (3)

#### Core courses

MRT 201, 204, 211 and 212 (11)

\*Optional elective

## Associate of science

Firelands College offers two years of general education courses leading to the Associate of Science degree. Students who complete the associate of science degree have reached the halfway point in the progression toward a B.S. degree.

The associate of science degree program is designed to provide pre-baccalaureate students with a sound academic background in a number of academic disciplines such as the biological sciences, computer science, chemistry, geology, physical geography, mathematics and physics/electronics.

In addition, the associate of science degree offers the foundation to many career opportunities, such as:

Pre-professional  
medicine  
nursing  
optometry  
veterinary medicine  
dentistry  
hygienists  
pharmacy  
occupational therapy

Microbiologist  
Agriculturist  
Wildlife management  
Applied mathematician  
Chemist  
inorganic-organic  
physical-nuclear  
structural-polymer  
Computer scientist  
Secondary school teacher  
Pre-engineering

General requirements for the associate of science degree are:

#### Communication (6 hrs. minimum)

Each student is required to acquire proficiency in written expression and oral communication. ENG 112 and SPCH 102 are required.

#### Math/science (20 hrs. minimum)

To include a concentration of two courses in a major field and two courses in a cognate field. Eligible disciplines include: biology, chemistry, computer science, geology, physical geography, physics and mathematics. Math 130 or 131 required.

#### Social and behavioral sciences (14 hrs. minimum)

To include courses from at least two of the following disciplines: economics, geography, history, political science and sociology. PSYC 201 is required.

#### Fine and applied arts (10 hrs. minimum)

To include courses from at least two of the following: art, film, literature, music, popular culture, philosophy, speech and theatre. One course in literature must be included.

#### Physical education and electives

To include foreign language (depending on student's background).

# COURSE DESCRIPTIONS

A  $\diamond$  preceding a course number indicates that the course is offered both at Firelands and on the main campus.

A  $\uparrow$  preceding a course number indicates that the course is offered only at Firelands.

The Arabic number in parentheses immediately following the title of the course indicates the number of hours of credit.

The Roman numerals indicate the term the course is usually offered on the main campus with I indicating fall semester; II, spring semester; and III, summer term.

Courses numbered from 100 to 199 are ordinarily for freshmen or sophomores.

Courses numbered from 200 to 299 are for sophomores, juniors, and seniors and are not ordinarily open to freshmen.

Courses numbered from 300 to 499 are ordinarily open to juniors and seniors but under exceptional circumstances may be taken by a student upon the recommendation of his or her adviser and with the written approval of the instructor of the course or the chair of the department concerned.

Courses which may be taken for graduate credit are listed following the undergraduate courses in this handbook.

## Accounting (ACCT)

$\diamond$  **ACCT 221. Introduction to Accounting I** (3) I, II, summer. Financial accounting concepts and methodology for accumulating data on the results of economic activities of a business concern and reporting such results to various user groups. Underlying theory of the reporting model as it relates to user decisions about the business. Prerequisite: sophomore standing or consent of instructor.

$\diamond$  **ACCT 222. Introduction to Accounting II** (3) I, II, summer. ACCT 221 continued with emphasis on usage of accounting information in the managerial process. Problems of cost determination, cost flows, cost behavior are explored. Specialized accounting topics of auditing, SEC, non-profits, and international organizations are introduced. Prerequisite: ACCT 221.

**ACCT 321. Intermediate Financial Accounting I** (3) I, II, summer. Development and application of financial accounting concepts and generally accepted accounting principles. Preparation of financial statements and accounting for changes in accounting principles. Emphasis on valuation and cost allocation methods for assets and related effects on income statements. Prerequisite: admission to the degree program in accounting or consent of department.

**ACCT 322. Intermediate Financial Accounting II** (3) I, II, summer. ACCT 321 continued with emphasis on long-term liabilities, pensions, leases, stockholders' equity, income tax allocation, accounting for inflation, and the statement of changes in financial position. Prerequisite: grade of C or better in ACCT 321.

**ACCT 325. Accounting Concepts for Non-business Students** (3) I, II, summer. Accounting concepts and procedures and their contribution to administrative processes. Enterprise analysis, relevant data, its uses and limitations. Not applicable to pre-professional core requirements in the College of Business. Not open to students who have completed ACCT 221 or ACCT 222. Prerequisite: junior standing.

**ACCT 327. Financial Accounting for Non-majors** (3) I. Structure and theory of financial accounting. Evaluation of existing conventions and procedures pertaining to external reporting. No credit towards accounting concentration. Prerequisite: ACCT 222.

**ACCT 331. Cost Accounting** (3) I, II, summer. Cost determination and cost accounting systems. Cost analysis using regression methods. Job order, process, standards, and variable cost systems. Accounting for spoilage, service departments, and joint products. Prerequisite: admission to degree program in accounting and STAT 212, or consent of department.

**ACCT 332. Intermediate Managerial Accounting** (3) I, II, summer. Accounting's relationship to planning and control function. Budgeting, corporate planning models, cost-volume-profit analysis, relevant data, capital budgeting, data for operations research models, behavioral considerations, enriched variance systems, evaluation of performance, and transfer pricing. Prerequisite: grade of C or better in ACCT 331.

**ACCT 337. Management Accounting for Non-majors** (3) II. Accounting concepts as tools for administrative evaluation and control of business operations. Nature, usage, and reliability of accounting data in the decision making process. Cost analysis and profit planning. No credit towards accounting concentration. Prerequisite: ACCT 222.

**ACCT 421. Advanced Financial Accounting** (3) I. Theory and practice for business combinations and consolidations, partnerships, branch and home office accounting, financial reporting for multinationals including foreign currency translation. Prerequisite: grade of C or better in ACCT 322.

**ACCT 422. Contemporary Financial Accounting Topics** (3) II. Theory and implications for accounting practice of selected contemporary financial accounting topics. Topics vary with governmental and professional bodies' pronouncements impacting on financial accounting. Prerequisite: grade of C or better in ACCT 322.

**ACCT 423. Accounting for Non-profits** (3) II. Methods and problems of controlling and reporting on resources (funds) segregated for conducting specific activities of non-profit-seeking entities; budgetary control. Prerequisite: grade of C or better in ACCT 322 or consent of instructor.

**ACCT 424. Financial Reporting for Multinationals** (3) II. Alternate years. Case study of worldwide accounting control and reporting problems, impact of cultural and legal constraints, and objective appraisal of various accounting principles and pronouncements. Prerequisite: grade of C or better in ACCT 322.

**ACCT 429. Problems in Accounting Practice** (3) II. Comprehensive review and integration of accounting theory and practice using problem method. Prerequisite: 16 hours of accounting and grade of C or better in ACCT 322.

**ACCT 439. Role of the Financial Executive** (3) II. Capstone case study of accountant's role in management planning and control; profit centers, discretionary costs, budgeting, strategy, and evaluation of enterprise performance. Prerequisite: grade of C or better in ACCT 332 or in ACCT 337, or consent of instructor.

**ACCT 441. Introduction to Federal Taxation**

(3) I, summer. History, assumptions, objectives of the federal tax system. Determination of an entity's taxable and nontaxable incomes, capital gains and losses, deductions and exemptions, and special provisions. Reporting requirements and determination of tax liability. Introduction to federal tax research methodology. Prerequisite: grade of C or better in ACCT 322, or grade of C or better in ACCT 321 if concurrently registered for ACCT 322.

**ACCT 442. Advanced Federal Taxation** (3) II. Determination of taxable income and reporting requirements unique to corporations, partnerships, and Subchapter S corporations. Application of federal tax laws to special problems of corporations including stock redemptions, capital structure, liquidation, and corporate accumulations. Overview of federal taxation of gifts, estates, and trusts. Prerequisite: grade of C or better in ACCT 441.

**ACCT 451. Auditing I** (3) I, summer. Auditing procedures and practices of independent verification of financial records and reviews of operations as used by internal auditors and public accountants. Nature of audit evidence, evaluation of internal controls, statistical sampling, computer auditing. Prerequisite: grade of C or better in ACCT 322, or grade of C or better in ACCT 321 if concurrently enrolled in ACCT 322.

**ACCT 452. Auditing II** (3) II. Auditor's role in society; auditing standards, professional ethics, accountants' legal liability, the auditor's report. Case studies in applied auditing. Prerequisite: grade of C or better in ACCT 451, or consent of instructor.

**ACCT 489. Accounting Internship** (1-3) I, II, summer. Upon advance approval by program coordinator. Work experience and its evaluation in seminar must be completed in quarter following work experience. Not open to student with credit for any other 409 course in College of Business. Graded S/U.

**ACCT 491. Studies in Accounting** (1-3) On demand. Investigation in depth of selected areas or contemporary problems. May be offered individually as well as in classes depending on student needs and nature of material. Prerequisite: approval of department.

**Accounting Technology (ACT)**

†**ACT 231. Financial Accounting** (3) I or II. Theory and application of generally accepted accounting principles as pronounced by the Financial Accounting Standards Board (FASB) and the Securities Exchange Commission (SEC). Designed for the associate of applied business accounting program at Firelands. Prerequisite: ACCT 221.

†**ACT 241. Cost Accounting** (3) I or II. Theory and application of job-order-cost systems, process cost systems, and standard cost systems. Designed for the associate of applied business accounting program at Firelands. Prerequisite: ACCT 222.

†**ACT 251. Federal Income Tax** (3) I or II. Theory and application of federal income taxes as applied to the individual, sole proprietorship, partnership, and corporation. Designed for the associate of applied business accounting program at Firelands.

**Aerospace Studies (AERO)**

These courses are for Air Force ROTC. Successful completion of these courses can lead to a commission as an officer in the United States Air Force.

**AERO 111. Air Force Organization** (1) I. Organization of the United States Air Force, mission function and employment of strategic forces, capabilities of Army in limited war and counterinsurgency, Naval forces structure and employment, enemy threat assessment. Leadership laboratory activities.

**AERO 112. Air Force Organization** (1) II. U.S. general purpose force capabilities, mission, resources, operation of tactical air forces defensive forces, airlift forces, structure and function of logistics support weapons systems development. Leadership laboratory activities.

**AERO 211. Air Force History** (1) I. Development of air power from the first lighter-than-air vehicles through to the establishment of the Department of the Air Force as an independent military force. Various concepts of employment of air power and factors which have prompted research and technological change. Examples of impact of air power on strategic thought. Leadership laboratory activities.

**AERO 212. Air Force History** (1) II. Development of air power since the establishment of the independent Air Force to the present. Various concepts of employment of air power and factors which have prompted research and technological change. Examples of impact of air power on strategic thought. Leadership laboratory activities.

**AERO 311. Air Force Management** (3) I. Integrated management course emphasizing individual as a leader in the Air Force. Human behavior, individual and in groups, historical development of management thought, discussion of classical leadership theory; oral and written communication, military writing, and briefing formats. Leadership laboratory activities. Prerequisite: departmental approval.

**AERO 312. Air Force Management** (3) II. AERO 311 continued. Air Force leadership, planning, organizing, coordinating, directing and controlling functions of management with emphasis on Air Force application, concept of command and staff, junior officer as administrative leader, Air Force personnel system, management of change, managerial strategy in changing environment. Leadership laboratory activities. Prerequisite: departmental approval.

**AERO 362. Flight Instruction Program:**

**Ground School** (3) II. Basic aerodynamics; aircraft systems and performance; flight instruments; medical facts; Federal Aviation Administration/National Transportation Safety Board regulations; National Airspace System; flight publications; meteorology and weather services. Aviation map and chart interpretation; flight computer; dead reckoning and pilotage navigation; radio navigation; radio communication; airport operations; wake turbulence; flying safety. Required of AFROTC pilot candidates. Special departmental approval required for all others.

**AERO 411. Air Force Officership** (3) I. The Air Force officer as part of national security forces in contemporary American society, armed forces as integral element of society, American civil military relations and environmental context in which defense policy is formulated. Formulation and implementation of U.S. defense policy; framework of defense policy including domestic and international system. Leadership laboratory activities. Prerequisite: departmental approval.

**AERO 412. Air Force Officership** (3) II. The Air Force officer and his part in the evolution of defense strategy since World War II. Strategy and management of conflict, arms interaction and control, limited war, insurgency, counter-insurgency, international terrorism, military law. Initial Active Duty Orientation. Leadership laboratory activities. Prerequisite: departmental approval.

**AERO 461. AFROTC Flight Instruction Program** (2) I. Aircraft operation; flight safety; rules of the air; instruction in advanced flight maneuvers; navigation techniques. Required of and limited to AFROTC pilot candidates.

**Aerotechnology (AERT)**

(See technology)

**American Studies (AMST)**

**AMST 200. Introduction to American Studies** (3) I. Regional, ethnic, and economic aspects of American national experience as reflected in verbal, visual, and material artifacts. Culture theory and models used to examine selected topics and problems. Required of all American studies majors.

**AMST 230. Issues in American Civilization** (3) I, II. Characteristically American themes, issues, or problems reflecting relationships among ideas, values, traditions, events, and personalities. Subject matter designated in time schedule; may be repeated once if topics differ.

**AMST 240. Historical Perspectives on American Culture** (3) I, II. Interdisciplinary study of a theme, issue, or problem as it relates to historical development of American culture. Designed for non-majors; meets requirement for Group IV.

**AMST 300. Interpretations of American Culture** (3) I, II. Such theories as frontier thesis, melting pot, cultural pluralism, regionalism, and technocracy and their imaginative expression. Prerequisite: junior standing or consent of instructor. May be repeated if subject differs.

**AMST 400. Senior Seminar in American Studies** (3) II. Interdisciplinary approach to study of American culture. Required of American studies majors, but of interest to students who focus on American culture, society, institutions, or economics in their particular disciplines. May be repeated once if topics differ. Prerequisite: senior or permission of instructor.

**AMST 490. Tutorial in American Studies** (1-3) I, II. Independent study in special interdisciplinary subject not covered by existing courses. Prerequisite: junior standing; proposal, signed by proposed tutor, must be submitted for approval by undergraduate adviser in American studies prior to semester in which tutorial begins.

## Applied Mathematics and Statistics (AMS)

† **AMS 100. Developmental Mathematics** (3) I, II, summer. Review of basic mathematics such as equations, inequalities, exponents and radicals, logarithms, polynomial functions, graphs, and applications. Credit for this course does not apply toward graduation if credit for any other AMS or MATH course has been taken. Graded S/U.

## Applied Statistics (STAT)\*\*

\* **STAT 200. Using Statistics** (3). Descriptive statistics, common statistical measures, interpretation and misinterpretations of statistical techniques (statistical sampling, regression analysis, design of comparative experiments). Does not count toward graduation credit for students receiving B.S. in B.A.

◆ **STAT 211. Elementary Statistical Methods I** (3) I, II. Elementary probability, random variables, probability distributions, sampling, descriptive statistics, decision theory, and sampling distributions. Prerequisite: MATH 125 or MATH 131 or concurrent registration in MATH 125.

◆ **STAT 212. Elementary Statistical Methods II** (3) I, II. Estimation, hypothesis testing, regression, correlation, analysis of variance, and contingency tables. Prerequisite: STAT 211.

\* **STAT 311. Introduction to Regression and Design** (3) I, II. Regression analysis; topics in design of experiments. Prerequisite: STAT 212 or MATH 442 or consent of instructor.

\* **STAT 312. Topics in Applied Statistics** (3). Selected topics from time series, sample design, decision theory, nonparametrics or factor analysis. Prerequisite: STAT 212.

**STAT 315. Introduction to Statistical Inference** (3) I. N-dimensional random variables and distributions; methods of estimation; hypothesis testing. Prerequisites: STAT 212 and MATH 232. Not open to students with MATH 442.

**STAT 402. Regression Analysis** (3) I. Linear, nonlinear, and multiple regression and correlation analysis. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

**STAT 404. Time Series Analysis** (3). Stochastic stationary and nonstationary models; use in forecasting seasonal and nonseasonal discrete-time series; fitting models to time series data. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

**STAT 406. Sample Design** (3) II. Sampling as a tool of scientific inference in research and management. Planning surveys; sample size, stratified, systematic, and cluster sampling; sources of error in surveys. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

**STAT 410. Experimental Design** (3) II. Constructing statistical designs and analyzing resulting data; basic experimental design and analysis of variance. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

**STAT 412. Applied Nonparametric Statistics** (3). Nonparametric approach to testing hypotheses: contingency tables, goodness of fit, procedures based on ranks. Prerequisites: STAT 315 or MATH 442 or consent of instructor.

**STAT 414. Statistical Quality Control** (3). Statistical process control; Shewhart control charts (variables and attributes); acceptance sampling (single, double, and sequential); Dodge-Romig Tables. Prerequisite: STAT 212 or MATH 442 and one additional STAT course or consent of instructor.

**STAT 491. Studies in Statistics** (1-3). On demand. Investigation of selected areas or contemporary problems. May be offered individually and in classes depending on student needs and nature of material.

## Art (ART)

◆ **ART 101. Introduction to Art** (3) I, II, summer. Historical and aesthetic components of art with laboratory experiences with basic elements of creative expression. Non-majors only. Two hours studio, two hours lecture.

◆ **ART 102. Two-Dimensional Foundations** (3) I, II. Introduction to principles of art through a variety of concepts and media used in creative two-dimensional form organization. Required of art majors and minors. Can be taken with ART 103.

◆ **ART 103. Drawing Foundations** (3) I, II. Development of drawing skills through observation of natural objects to aid expressive draftsmanship and pictorial accuracy. Required of art majors and minors. Can be taken with ART 102 or ART 112.

◆ **ART 112. Three-Dimensional Foundations** (3) I, II. Creative principles of art in three-dimensional form emphasizing aesthetics, utilitarian concepts and tools in experimental studio experiences. Required of art majors and minors. Can be taken with ART 103.

◆ **ARTH 145. Western Art I** (3) I, II. Ancient, Medieval, and early Renaissance art.

◆ **ARTH 146. Western Art II** (3) I, II. Art from High Renaissance to present. May be taken before ART 145.

◆ **ART 205. Figure Drawing** (3) I, II. Principles and practices of creative and structural figure drawing; development of concepts and techniques for competent graphic expression related to drawing human forms. Six studio hours. Prerequisite: ART 103. Lab fee.

◆ **ART 206. Drawing from Life** (3) I, II. Further work on visual comprehension in figure drawing to improve perceptual judgment; move to a more personal and selective level of stylistic interpretation. Six studio hours. Prerequisite: ART 205. Lab fee.

**ARTD 211. Introduction to Graphic Design** (3) I, II. Exploration and application of design principles, layout and typography; tools, techniques and terminology of the discipline. Six studio hours. Prerequisite: ART 102 or consent of instructor. Lab fee.

**ART 212. Introduction to Product Design** (3) I, II. Problem-solving as related to product design; terminology, drafting, modelmaking and prototypes. Six studio hours. Prerequisites: ART 103 or ART 112 or DESN 104 or consent of instructor. Lab fee.

**ART 213. Introduction to Environmental Design** (3) I, II. Fundamentals, terminology, methods of communication for the environmental profession. Use of illustration and three-dimensional models as means of exploring design and presentation. Six studio hours. Prerequisite: ART 112 or consent of instructor. Lab fee.

**ART 230. Introduction to Art Therapy** (2) I, II. Theories, practices and literature of the profession. Prerequisite: ART 102 or ART 103 or consent of instructor. Lab fee.

**ARTE 252. Foundations for Teaching Visual Arts** (3) I, II. Lecture, laboratory, and field-based experiences for art teaching. Clinical analysis of instructional behavior in art education settings. Prerequisite: sophomore standing.

**ART 261. Sculpture I** (3) I, II. Creative concepts, arrangements and techniques of three-dimensional sculptural forms. Six studio contact hours. Prerequisites: ART 101 or ART 102. Lab fee.

**ART 263. Ceramics I** (3) I, II. Clay as creative medium for functional forms. Handbuilding and wheel techniques; simple sculpture; glazing and firing; survey of clays, pottery types, kilns, pyrometry. Six studio hours. Prerequisites: ART 102, ART 112. Lab fee.

**ART 265. Non-Loom Fiber Techniques** (3) I, II. Concepts and techniques as related to non-loom techniques for fiber forms: felting; coiling, crochet, macrame, card weaving or plaiting. Six studio hours. Lab fee.

**ART 267. Stained Glass Compositions** (3) I. Techniques involved with creative two and three-dimensional arrangements; emphasis on individual studio development. Six studio hours. Lab fee.

**ART 277. Printmaking I** (3) I, II. Basic techniques for woodcuts, silk screen, intaglio, or lithography. Six studio hours. Prerequisite: ART 103. Lab fee.

**ART 305. Advanced Drawing from Life** (3) I, II. Advanced experimentation using the figure in drawing composition with a graphic media. Six studio hours. Prerequisite: ART 206. Lab fee.

**ARTD 311. Advanced Graphic Design** (3) I, II. Advanced problems in graphic design with an emphasis on typography and editorial and publication design. Six studio hours. Prerequisite: ART 211 or consent of instructor. Lab fee.

**ARTD 312. Advertising Design** (3) I, II. Translating words and ideas into visual realities of mass communication; magazines, newspapers, billboards, direct-mail, and TV. Use of felt markers, storyboards and video tape. Six studio hours. Prerequisite: ART 311 or consent of instructor. Lab fee.

**ARTD 313. Rendering** (3) I, II. Studio practice with professional techniques for presenting three-dimensional design on a two-dimensional surface. Six studio hours. Prerequisite: ART 212 or ART 213 or consent of instructor. Lab fee.

**ART 315. Glassworking** (3) I, II. Free hand-blown glass formation; personal creative use of glass as an artistic medium for expression. Six studio hours. Lab fee.

◆ **ART 320. Enameling on Metal** (3) I, II. Enameling techniques on copper; after initial 6 hours credit earned, choice of copper or jewelry techniques. Six studio hours. May be repeated to 9 credit hours. Prerequisite: ART 101 or ART 102, or consent of instructor. Lab fee.

**ART 321. Beginning Jewelry Design** (3) I, II. Design and fabrication techniques of metal jewelry - piercing, chasing, repousse, soldering and stone setting. Six studio hours. Prerequisite: ART 101 or ART 102, or consent of instructor. Lab fee.

**ART 322. Jewelry Design** (3) I, II. Centrifugal casting of silver, gold, tombac, brass and bronze jewelry and related objects, using wax and plastic models. Six studio hours. Prerequisite: ART 321. Lab fee.

\* Cannot be counted toward specialization in STAT.  
\*\* See also mathematics and statistics (MATH).

**ART 325. Creative Photography (3) I, II.** Photography as a fine art. Use of camera for personal creative expression; individual perception, articulation and interpretation. Six studio hours. Prerequisites: ART 102 or consent of instructor.

**ARTT 330. Art Therapy: Methods and Theories I (3) I.** Psychological, creative and educational models which provide foundation philosophy for art therapy practice; methods of using art experience for art therapy. Field observation and laboratory. Prerequisite: ART 230. Lab fee.

**ARTT 331. Art Therapy: Methods and Theories II (3) II.** Lecture and supervised field experience emphasizing relationship of art process, art therapy methods and special needs populations. Prerequisite: ART 330. Lab fee.

◆ **ARTE 343. Art in the Elementary Schools (2) I, II, summer.** Professional methods lecture, clinical studio laboratory exploration of art media and planning approaches for teaching art to children in relation to their creative and artistic development. Not for arts and sciences credit. Not open to art majors. Prerequisite: ART 101 or ART 102. Lab fee.

**ARTE 352. Approaches to Public School Art (3) I, II.** Theories of creative development in lecture/laboratory and field experiences. Lesson content selection, planning and presentation for visual arts teaching. Not for arts and sciences credit. Prerequisites: ART 252 and EDFI 302. C/F hrs.: 40.

**ARTE 353. Approaches to Art Curriculum and Supervision (3) II.** Planning and management of art programs; clinical experiences related to development of instructional units for art curricula. Not for arts and sciences credit. Prerequisites: ART 252 and 352. C/F hrs.: 20.

**ART 361. Sculpture II (3) I, II.** Three-dimensional development in techniques such as: casting, assembling, fabricating, manipulating and forming metal, plastic, plaster, etc.; welding with oxygen/acetylene, arc and MIG; and carving wood and stone. Six studio hours. May be repeated to six hours.

**ART 363. Ceramics II (3) I, II.** Development of throwing techniques, design concepts, surface decoration, and sculptural forms. Laboratory development of simple glazes. Kiln stacking and firing. Six studio hours. Prerequisite: ART 263. Lab fee.

**ART 365. Loom Weaving (3) I, II.** Techniques of weaving on a 4-harness loom. Emphasis on materials and creative interpretation of fiber forms. Six studio hours. Lab fee.

◆ **ART 371. Watercolor Painting I (3) I, II.** Introductory experimentation with painting techniques on paper; employment of the figure, still-life and landscape as initial references. Six studio hours. Prerequisite: ART 103.

◆ **ART 372. Watercolor Painting II (3) I, II.** Choice of specific compositional problems exploring the possibilities of design and expression in watercolor techniques; creation of foundational surfaces, mixed media, and works in series. Six studio hours. May be repeated to 6 hours. Prerequisite: ART 371.

**ART 373. Oil/Acrylic Painting I (3) I, II.** Exploration of painting techniques from traditional and contemporary using oil and acrylic paint as a medium emphasizing individual artistic response. Six studio hours. Prerequisite: ART 103.

**ART 374. Oil/Acrylic Painting II (3) I, II.** Opportunity to experiment with varying media and techniques and to use fundamentals learned in introductory course. Six studio hours. May be repeated to six hours to provide more individual instruction. Prerequisite: ART 373.

**ART 377. Printmaking II (3) I, II.** Development of additional techniques as related to woodcuts, silk screen, intaglio or lithography. Six studio hours. May be repeated to six hours. Prerequisite: ART 277. Lab fee.

**ART 395. Workshop on Current Topics in Art (1-4).** Select semesters. Short-term workshop in studio or art education with content and emphasis as directed by needs and interests. One or two clock hours per credit depending on type. Prerequisite: as announced for each workshop.

**ART 405. Advanced Drawing (3) I, II.** Conceptual imagery in drawings as completed visual statements; not exclusively concerned with the human figure. Six studio hours. May be repeated to six hours. Prerequisite: ART 206. Lab fee.

**ARTD 412. Packaging and Promotion Design (3) I, II.** The package as attractive, informative product vehicle, and its relationship to consumer purchase. Promotional and collateral advertising of product and package. Six studio hours. Prerequisite: ART 312 or consent of instructor. Lab fee.

**ARTD 413. Corporate Identity Design (3) I, II.** Professional presentation of corporate identity program for existing or fictitious company. Development and application of trademark and/or logo type based on compiled in-depth research. Six studio hours. Prerequisite: ART 412 or consent of instructor. Lab fee.

**ART 415. Advanced Glassworking (3) I, II.** Continuation of free handblown glass formation. Cast glass techniques including: pate de verre, slumping, sand casting. Equipment and studio construction. Six studio hours. Prerequisite: ART 315. Lab fee.

**ARTD 416. Product Design and Development (3) I, II.** Research, design and development of objects for manufacture. In-depth projects include drawings, renderings, and models or prototypes. May be repeated to six hours. Prerequisites: ART 212 and ART 213 or consent of instructor. Lab fee.

**ARTD 417. Environmental Design (3) I, II.** Contemporary environmental planning; includes projects dealing with a variety of spaces and functions; use of renderings and models. May be repeated to six hours. Prerequisite: ART 213 or consent of instructor. Lab fee.

**ARTD 418. Senior Design Problems (3) I, II.** Specific design problems chosen from actual product or environmental situations. Research, design, and presentation handled as final portfolio project. Six studio hours. Prerequisite: senior standing. Lab fee.

**ARTD 419. History of Design (2) I, II.** Slide survey of architectural, graphic, and industrial design movements influencing western culture from 1850 to present.

**ART 421. Advanced Jewelry Design (3) I, II.** Advanced problems in jewelry design, smithing and forging. Six studio hours. May be repeated to 9 credit hours. Prerequisite: ART 321 and 322. Lab fee.

**ART 423. Jewelry Enameling (3) I, II, summer.** Specialized course for students wishing to combine champleve, cloisonne, and plique-a-jour enameling techniques with jewelry. Six studio hours. Prerequisite: ART 320 and 421. Lab fee.

**ART 425. Advanced Problems in Creative Photography (3) I, II.** Advanced level assignments in creative photography; development of personal direction; emphasis on communicative potential of resulting images. Six studio hours. May be repeated to six hours. Prerequisite: ART 325.

**ARTH 440. Modern Architecture (3)** Alternate years. Architecture of 19th and 20th centuries in Europe and America.

**ARTH 441. American Art to the Civil War (3) I.** Painting, sculpture, and architecture of colonial era and United States to 1860; interrelationship between visual arts and significant issues in American culture.

**ARTH 442. American Art Since the Civil War (3) II.** Painting, sculpture, architecture, and photography of United States from 1860 to present. Special attention to artists and developments prior to W.W.II frequently overlooked in surveys of modern art.

**ARTH 445. Ancient Art I (3) I.** Art and archaeology of Greece from preclassical Aegean world through Hellenistic period.

**ARTH 446. Ancient Art II (3) I.** Sculpture, architecture and painting of ancient Etruria and Rome from eighth century B.C. to fourth century A.D.

**ARTH 449. Medieval Art (3) I.** Alternate years. Art and architecture from Medievalization of Roman Empire through High Gothic period.

**ARTH 451. Renaissance and Baroque Art in Southern Europe (3) I.** Alternate years. Painting, sculpture and architecture in Italy and Spain from early 14th through 17th century.

**ARTH 454. Renaissance and Baroque Art in Northern Europe (3) II.** Alternate years. Art of England, Flanders, France, Germany, and Holland between 1400 and 1750, with primary emphasis on painting. Iconographic analyses as well as studies of stylistic developments.

**ARTH 455. Art of the 19th Century (3) I.** Painting and sculpture in 19th century, from neoclassicism through post-impressionism.

**ARTH 456. Art of the 20th Century (3) II.** Painting and sculpture in 20th century Europe and America, from Fauvism to the present.

**ARTH 458. Art of India and S.E. Asia (3) I.** Art and architecture in India and S.E. Asia from the earliest times to present.

**ARTH 459. Art of China and Japan (3) II.** Art and architecture of China and Japan from earliest cultures to present.

**ART 461. Sculpture III (3) I, II.** Advanced sculptural techniques and introduction to environmental and architectural scaling. Six studio contact hours. May be repeated to six credit hours. Prerequisite: ART 361. Lab fee.

**ART 463. Ceramics III (3) I, II.** Throwing of duplicate forms and functional ware. Glaze development through unity molecular formula. Individual projects determined upon consultation with instructor. Six studio hours. May be repeated to six hours. Prerequisite: ART 363. Lab fee.

**ART 465. Experimental Weaving (3) I, II.** Conceptual and functional work leading to development of personal direction in tapestry, multiple harness, ikat, rug or pattern weaving. Six studio hours. May be repeated to six hours. Prerequisite: ART 365 or consent of instructor. Lab fee.



**ART 470. Individual Studies in Art** (1-3). Supervised individual problems in selected studio areas, art education, or art history research for student who has shown proficiency and marked degree of independence in other course work. May be repeated. Prerequisite: consent of director.

**ART 471. Watercolor Painting III** (3) I, II. Individual development in watercolor medium emphasizing personal style and presentation. Students are encouraged to find self-directions and motivation in consultation with instructor. Six studio hours. May be repeated to 6 hours. Prerequisite: ART 372.

**ART 473. Oil/Acrylic Painting III** (3) I, II. For advanced student to pursue personal style and to concentrate on elements most important to them. Emphasis placed on individuality and arranged critiques. Six studio hours. May be repeated to 6 hours. Prerequisite: ART 374.

**ART 477. Printmaking III** (3) I, II. Specialized advanced techniques in woodcuts silk screen, intaglio, or lithography. Six studio hours. May be repeated to six hours. Prerequisite: ART 377. Lab fee.

**ARTE 482. Art for Special Needs Children** (3) I, II. Art strategies and media adaptations for exceptional populations in both regular and alternative educational settings. Uses of art for exceptional children in regular classroom. Not for arts and sciences credit. C/F hrs: 40.

**ARTE 483. Teaching for Art Appreciation** (3) I, II. On demand. Role of art in society; development of instructional units on art history, art criticism, aesthetic responding. Prerequisite: senior standing. C/F hrs: 29.

**ARTE 487. Studio Teaching Practicum** (3) I, II. Clinical teaching experience in School of Art Children's Program. Two credits if instructing, one credit if assisting. Prerequisite: permission of program director.

**ART 488. Art Therapy: Practicum** (10) I, II. Supervised art therapy practicum therapeutic art experience in selected mental health, medical or educational facility. Weekly seminar. Prerequisite: ART 331 or consent of instructor.

**ART 489. Design Internship** (3-10) I, II, summer. Studio experience in chosen area design firm. Credit approved upon submission of portfolio and written description of experience in consultation with firm; elective hours only. Prerequisites: 15 hours of design, consent of design staff.

**ART 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

**ART 495. Workshop Topics in Art Education** (1-3). Summer. Special topics and intensive group studies relative to special needs of visual arts teachers. Prerequisites announced for each workshop.

**ART 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

## Arts and Sciences (A&S)

**A&S 100. Seminar in Arts and Sciences** (1-5) On demand. Interdisciplinary studies in arts and sciences or area of study meeting new trends in arts and sciences. May be repeated by consent of dean of college. Prerequisite: consent of instructor.

**A&S 300. Seminar in Arts and Sciences** (1-5) On demand. Interdisciplinary studies in arts and sciences or area of study meeting new trends in arts and sciences. May be repeated by consent of dean of college. Prerequisite: consent of instructor.

**A&S 410. Anthropological Theory and Methodology** (3) On demand. Anthropological theory and methodology from 19th century to the present.

**A&S 480. Anthropological Senior Seminar** (3) On demand. Senior Seminar or directed field research.

## Astronomy (ASTR)

**ASTR 201. Modern Astronomy** (3) I, II, summer. Recent astronomical discoveries; space travel among planets, birth and death of stars, supernovas, pulsars, black holes, x-ray stars, radio galaxies, quasars, extra-galactic phenomena, and origin of universe; some observational work.

**ASTR 212. The Solar System** (3) I. Alternate years. Planetary, solar and space science. The moon, solar interior and atmosphere, solar/terrestrial relations, planetary structure and atmospheres, comets, asteroids, meteoroids, space exploration, origin of solar system.

**ASTR 305. Life in the Universe** (3) I. Alternate years. Possibilities for life on other planets and other star systems, methods for communicating with other intelligent life, movement of human life into space.

**ASTR 307. Understanding the Cosmos** (3) II. Alternate years. The universe as a whole, gravity, black holes, structure of space; other galaxies and the universal redshift, clusters of galaxies and other large-scale structure; big bang and steady state models; the three degree background radiation; first moments of creation.

**ASTR 309. Astrophotography Laboratory** (1) II. Alternate years. Practice in the techniques of astronomical observation and photography using small (8 inch) telescopes and 35 mm cameras. One three-hour laboratory. Open only to majors or minors in physics or astronomy.

**ASTR 321. Recent Progress in Astronomy** (2) I. Alternate years. Pulsar dynamics, gravitational collapse and black holes, galaxies, large-scale structure in the universe, active galaxies and quasars, cosmology. Two lecture-recitations. Prerequisite: PHYS 212; or PHYS 202 and 1 year of calculus. Not open to students with credit for PHYS 321.

**ASTR 403. Stellar Structure and Evolution** (3) I. Alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states: red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 301 and consent of instructor. Not open to student with credit for PHYS 403.

## Biological Sciences (BIOL)

◆ **\*BIOL 101. Environment and Man** (3) I, II, summer. Basic ecology and current environmental problems of air, water, and land pollution; human reproduction and population dynamics. Two one-hour lectures and one two-hour laboratory. Not accepted toward biology major or minor.

◆ **\*BIOL 104. Introduction to Biology** (4) I, II, summer. Basic concepts: the cell, metabolism, genetics, reproduction, development, evolution, ecology. Three one-hour lectures, one two-hour laboratory. Not accepted toward biology major or minor.

\***BIOL 108. Life in the Sea** (3) I. Shore and ocean environments, variety and adaptations of marine life. Observations of marine organisms in marine laboratory. Three one-hour lectures. High school biology recommended. Not accepted toward biology major or minor.

\***BIOL H109. Life in the Sea - Honors** (4) I. Offered in conjunction with BIOL 108 (see above description). Emphasis on interdisciplinary aspects and lab credit for marine laboratory study. Three one-hour lectures, one one-hour discussion and three hours lab arranged. Prerequisites: University honors standing and consent of instructor. Not accepted toward a biology major or minor.

◆ **\*BIOL 110. Human Biology** (2) I. Basic human anatomy and physiology; how human organs function, in health and disease; and organ architecture as it relates to function. Two one-hour lectures. Not accepted toward a biology major or minor.

◆ **\*BIOL 204. Concepts in Biology I** (5) I, II, summer (on demand). Introduction to ecology, evolution, and diversity. Three one-hour lectures, one three-hour lab and one two-hour lab.

◆ **\*BIOL 205. Concepts in Biology II** (5) I, II, summer (on demand). Cellular and molecular biology, physiology and organ systems. Three one-hour lectures, one three-hour lab and one one-hour recitation.

◆ **\*BIOL 220. Introduction to Horticulture** (4) I. The handling of cultivated plants including growth, development, propagation, pest control, pruning, grafting and basic landscape design. Two one-hour lectures, two two-hour labs. Prerequisite: BIOL 104, or BIOL 204 and 205, or consent of instructor.

\***BIOL 270. Marine Closed Systems** (2) I. Theories and techniques of maintaining and studying living marine animals in closed salt water systems, chemical and nutritional studies. One one-hour lecture-discussion and three hours of laboratory arranged. Prerequisites: BIOL 204 and CHEM 125 or equivalent and consent of instructor.

**BIOL 299. Semester Transition Course** (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.

\***BIOL 301. Field Biology** (3) II. Identification and natural history of local organisms. Two one-hour lectures and one three-hour laboratory. Not open to arts and sciences biology majors except with consent of instructor. Prerequisite: three hours of biology.

\***BIOL 310. Biology of Aging** (2) I Alternate years. Biological aspects of normal aging at the cellular, tissue, and organismal levels. Two one-hour lectures. Prerequisites: BIOL 104 or BIOL 204 and 332 or BIOL 411, or consent of instructor.

- \***BIOL 313. Bacteriology** (4) I, II, summer (on demand). Methods of isolation, culture, and identification; physiological, genetic, and applied aspects of microorganisms. Two one-hour lectures, two two-hour laboratories. Prerequisites: BIOL 204 and 205 and one year of chemistry.
- \***BIOL 321. Economic Biology I – Insect Pests** (3) I. Biology, ecology and control of urban and other pest insects and related arthropods; environmental effects and physiological actions of insecticides; methodology and equipment used in pest management. Two one-hour lectures and one two-hour lab/discussion. Prerequisite: seven hours of biology.
- \***BIOL 322. Economic Biology II – Vertebrate Pests** (3) II. Biology, ecology and control of vertebrate pest animals; types and physiological action of avicides and rodenticides; epidemiology of zoonoses. Two one-hour lectures and one two-hour lab/discussion period. Prerequisite: seven hours of biology.
- ◆ **BIOL 331. Human Anatomy and Physiology I** (3) I, II. Integumentary, skeletal, muscular and nervous systems. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 104 or 205.
- ◆ **BIOL 332. Human Anatomy and Physiology II** (3) I, II. Circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 104 or BIOL 205 or consent of instructor.
- \***BIOL 343. General Botany** (3) I. Survey of plant kingdom: morphology, evolution and economic importance of major plant groups. Two one-hour lectures and one two-hour lab. Prerequisite: four hours of biology.
- \***BIOL 350. General Genetics** (2) I, II. Theoretical and applied aspects of inheritance. Molecular, chromosomal, and population levels of heredity in both prokaryotes and eukaryotes. Two one-hour lectures. Prerequisites: BIOL 204 and 205 or consent of instructor.
- \***BIOL 352. Laboratory in Genetics** (1) I, II. Materials, methods, and terminology of genetics through experiments, problems, and demonstrations. One three-hour laboratory. Prerequisite or corequisite: BIOL 350.
- \***BIOL 354. Population and Community Ecology** (2) I. Concepts of modern ecology. Fundamental ecological principles, life history patterns, structure and growth of populations, competition, niche theory, predation, succession, community structure and diversity. One one-hour lecture, one two-hour discussion. Prerequisites: BIOL 204 and 205 and MATH 131 or equivalent.
- \***BIOL 400. Special Topics in Biology** (1-3) I, II, summer. Selected topics or subject areas in life sciences. Prerequisite: consent of instructor; maximum of two enrollments, each with different topic, permitted for credit.
- \***BIOL 401. Introduction to Biological Research** (1-4) I, II, summer. For advanced student who has shown proficiency and marked degree of independence in work. Individual registration. Prerequisite: four semesters of biology and consent of instructor. May be repeated once, but only four hours may be applied toward major in biology. May be taken S/U for major credit.
- \***BIOL 405. General Parasitology** (4) I, II. Morphologic, taxonomic, economic and other biological aspects of parasites. Three one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.
- \***BIOL 406. Arthropod Vectors and Parasites** (3) II. Biology and identification of disease-carrying, toxic, and parasitic arthropods. Two one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205.
- \***BIOL 407. Cell Biology** (4) I. Structure and physiology of cells, integrating the dynamics of cellular structures with metabolic functions and control. Two one-hour lectures and one four-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.
- \***BIOL 409. Invertebrate Zoology I** (3) I. Classification, biology, and physiology of lower invertebrates. Two one-hour lectures and one two-hour laboratory. Prerequisite: one course in biology or consent of instructor.
- \***BIOL 410. Invertebrate Zoology II** (3) II. Classification, biology, and physiology of invertebrates through lower chordates. Two one-hour lectures and one two-hour laboratory. Prerequisite: one course in biology or consent of instructor.
- \***BIOL 411. Animal Physiology** (4) II. General and comparative animal physiology with emphasis on vertebrate systems. Two one-hour lectures and one four-hour laboratory. Prerequisites: BIOL 204 and 205; organic chemistry and BIOL 407 recommended; or consent of instructor.
- \***BIOL 412. Field Experience** (6) Summer only. Biotic communities in central and western U.S.; observation, identification of plants, animals; quantitative field work. Individual problems arranged for advanced students to a maximum of nine hours. Prerequisites: ten hours of biology and consent of instructor.
- \***BIOL 414. Plant Systematics** (3) II. Elementary principles of plant identification, construction and use of keys and manuals, including winter plants, mosses, ferns, and spring flora. Two two-hour lecture-laboratories, one one-hour discussion. Prerequisite: BIOL 204 or consent of instructor.
- \***BIOL 415. Plant Anatomy** (3) I. Development and mature structure of principal tissues of vascular plants; basic patterns and modifications of root, stem, leaf and flower. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor.
- \***BIOL 416. Morphology of Vascular Plants** (3) II. Comparative structure and evolutionary trends in vascular plants. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor.
- \***BIOL 417. Plant Physiology** (4) II. Plant growth and development, transport, photosynthesis, mineral nutrition, plant hormones and photoperiodism. Three one-hour lectures, one two-hour laboratory and additional laboratory by arrangement. Prerequisites: ten hours biology; one year of chemistry and BIOL 407 strongly recommended.
- \***BIOL 419. Animal Histology** (3) II. Microscopical anatomy of the vertebrates, origins of tissues and organs, relation of structure to function. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.
- \***BIOL 420. Animal Behavior** (3) II. Genetics, physiology, development and evolution of behavior from an ecological perspective. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205.
- \***BIOL 421. Microbiology** (3) I. Eukaryotic and prokaryotic microbial life; methods of laboratory study, enrichment techniques and nutrition. Two one-hour lectures and one three-hour laboratory. Prerequisite: BIOL 313 or consent of instructor.
- \***BIOL 422. Terrestrial Ecology** (3) I. Plants and animals in relation to the terrestrial environment. Two one-hour lecture-discussion and one three-hour laboratory. One weekend and one or more Saturday field trips required. Prerequisites: BIOL 204 and 205.
- \***BIOL 424. Algology** (4) I. Taxonomy, ecology and morphology of the algae; emphasis on fresh-water algae. One two-hour lecture and two two-hour laboratories. Prerequisites: BIOL 204 and 205.
- \***BIOL 425. Limnology** (3) I. Physical, chemical and biological aspects of aquatic habitats. One two-hour lecture and one three-hour lab. Prerequisites: BIOL 204 and 205.
- \***BIOL 426. Pathogenic Microbiology** (4) II. Morphologic, physiologic, and serologic characteristics of pathogenic microorganisms; their epidemiology; and the host-parasite interrelations resulting in infectious disease. Two one-hour lectures and two two-hour laboratories. Prerequisites: BIOL 313 and 439. (BIOL 439 may be taken concurrently.)
- \***BIOL 431. Chordate Embryology** (5) I. Early developmental patterns in chordates; descriptive, comparative and theoretical considerations of embryology, early growth, development, form and pattern. Three one-hour lectures and two three-hour laboratories. Prerequisites: BIOL 204 and 205 or consent of instructor.
- \***BIOL 432. Comparative Anatomy of Chordates** (5) II. Comparative anatomy of representative chordates; evolutionary significance of structural and developmental changes and relationships of all organ systems. Three one-hour lectures and two three-hour laboratories. Prerequisites: BIOL 204, 205 and 431 or consent of instructor.
- \***BIOL 434. Paleobotany** (3) II. Alternate years. Morphology, evolution, geological distribution of fossil plants. Two one-hour lectures, one two-hour laboratory and several field trips. Prerequisites: BIOL 416 and historical geology or consent of instructor.
- \***BIOL 435. Entomology** (4) I. Biology of insects: structure, physiology, ecology, systematics, evolution, and importance to man. Two one-hour lectures and two two-hour laboratories or equivalent in field trips. Prerequisites: BIOL 204 and 205.
- \***BIOL 438. Endocrinology** (3) I. Physiological, metabolic actions of selected endocrine glands with emphasis on mammals. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 411 and organic chemistry or consent of instructor; biochemistry recommended.
- \***BIOL 439. Immunobiology** (4) II. Immune state in animals; laboratory work on detection and quantitation of antigens and antibodies. Two one-hour lectures, one three-hour laboratory and one one-hour laboratory-recitation. Prerequisites: BIOL 204 and 205. BIOL 350 and biochemistry recommended.

**\*BIOL 440. Aquatic Vascular Plants (3) I.** Alternate years. Techniques and methods of collecting, identifying, preserving aquatic vascular plants; biology, ecology and geography of the flora with respect to the history since glaciation are included. Two one-hour lectures and one two-hour laboratory and some Saturday field trips. Prerequisites: BIOL 204, 205 and 414 or consent of instructor.

**\*BIOL 443. Microbial Physiology (4) II.** Chemical composition, metabolic activities and nutrient requirements of microorganisms. Two one-hour lectures and two two-hour laboratories. Prerequisites: BIOL 313 and CHEM 308 or consent of instructor.

**\*BIOL 446. Scanning Electron Microscopy (4) II.** Theory and practice of scanning electron microscopy applicable to biological research. Critical point drying, sample coating techniques, transmitted electron detection, energy-dispersive x-ray microanalysis and computational analysis of data. Two one-hour lectures and two three-hour laboratories. Prerequisite: consent of instructor. BIOL 407 strongly recommended.

**\*BIOL 447. Microbial Genetics (2) I.** Alternate years. Molecular biology and genetic phenomena of bacteria and bacteriophage; mutagenesis and recombination. Two one-hour lectures. Prerequisite: four semesters of biology or consent of instructor; BIOL 350 and biochemistry recommended.

**\*BIOL 449. Cytogenetics (3) II.** Alternate years. Structure, organization and behavior of chromosomes; their function, modification, evolution, and role in speciation. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 350 or consent of instructor.

**\*BIOL 451. Evolution (2) II.** Historical evidence for evolution. Modern evolutionary theory: modes of selection, speciation, complex adaptations, micro-evolutionary trends. One one-hour lecture and one two-hour discussion. Prerequisite: BIOL 350.

**\*BIOL 470. Readings in Biological Sciences (1) I, II, summer.** Independent readings on topics of current or specialized interest in biology. Not more than two hours may be applied to major or minor requirements. Prerequisite: consent of instructor. May be taken S/U for major credit.

**\*BIOL 472. Ichthyology (3) I.** Alternate years. Life histories, systematics, physiology, ecology, evolution and biogeography of major groups of freshwater and marine fishes. Two one-hour lectures and one three-hour laboratory. Saturday and/or weekend field trips required. Prerequisites: BIOL 204 and 205.

**\*BIOL 473. Mammalogy (3) I.** Alternate years. Identification, natural history, evolution, zoogeography, ecology, physiology, behavior, with emphasis on Ohio mammals. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205.

**\*BIOL 474. Marine Biology (4) II.** Biological and oceanographic analysis of marine environment: ecology, populations, laboratory techniques. Three hours of lecture and three hours of laboratory arranged. Prerequisites: one year of chemistry, invertebrate zoology, and consent of instructor.

**\*BIOL 475. Marine Biology Field Trip (1) II.** Field trip to marine environment and research station with collection and study of living marine fauna and flora, oceanographic analysis of environments, study on sea-going vessel using trawl and dredge; discussions of marine research by laboratory staff; tour of fishery station. Prerequisite: BIOL 474. Consent of instructor and transportation fee required.

**\*BIOL 476. Herpetology (3) II.** Alternate years. Amphibian and reptile identification, habits, distribution, behavior. Two one-hour lectures and one three-hour laboratory or equivalent field work, all day and/or weekend field trip. Prerequisites: BIOL 204 and 205.

**\*BIOL 477. Ornithology (3) II.** Structure, physiology, behavior, ecology and migration of birds; identification in field and laboratory. Two one-hour lectures and one three-hour laboratory or equivalent field work, all-day or weekend field trip. Prerequisite: seven hours of biology.

**\*BIOL 478. Parasites of Marine Animals (6) Summer.** Study of parasites of marine animals. Prerequisite: sixteen hours of biology including parasitology. Taught at Gulf Coast Research Laboratory.

**\*BIOL 479. Marine Microbiology (5) Summer.** Role of microorganisms in the ecology of oceans and estuaries. Prerequisites: general microbiology or bacteriology and consent of instructor. Taught at Gulf Coast Research Laboratory.

**\*BIOL 480. Problems in Comparative Histology of Marine Organisms (1-6) Summer.** Histological preparation for light and electron microscopy studies of marine organisms including structural changes during life cycles and histopathology of diseased tissues. Prerequisites and credits to be set by instructor and Registrar at Gulf Coast Research Laboratory.

**\*BIOL 481. Marine Botany (4) Summer.** Survey based upon local examples of principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification, and ecology. Prerequisites: BIOL 204 and 205 or consent of instructor. Taught at Gulf Coast Research Laboratory.

**\*BIOL 482. Introduction to Marine Zoology (4) Summer.** Introduction to marine environment with emphasis on local fauna. Weekly boat trips are made to collect specimens for laboratory study. Prerequisites: BIOL 204 and 205. Taught at Gulf Coast Research Laboratory.

**\*BIOL 484. Marine Invertebrate Zoology (6) Summer.** Anatomy, life history, distribution, and phylogenetic relationships of free-living marine invertebrates with emphasis on fauna of the Carolinian Region. Laboratory and field work included. Prerequisites: sixteen semester hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

**\*BIOL 485. Marine Vertebrate Zoology and Ichthyology (6) Summer.** Marine Chordata, including lower groups and mammals and birds with emphasis on fishes. Prerequisites: sixteen semester hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

**\*BIOL 487. Special Problems in Marine Science (1-6) Summer.** Supervised research on specific problems in all areas of marine science. Prerequisites and credits to be set by problem director and registrar at Gulf Coast Research Laboratory.

**\*BIOL 488. Topics in Marine Science (3-6) Summer.** Various marine courses such as marine ecology, salt marsh ecology, marine fisheries management, aquaculture, and others offered when taught by the Gulf Coast Research Laboratory staff. May be repeated for different titled topics as approved by the departmental marine science coordinator.

**\*BIOL 489. Biology Internship (1-3) I, II, summer.** For biological sciences majors in Cooperative Education program. Written report required. May be repeated with permission. Only three hours can apply toward biology major or minor. Prerequisite: consent of the departmental CEP representative. Graded S/U.

**\*BIOL 490. Seminar (1) I, II, summer.** Review of literature to acquaint student with research techniques and important work in various fields of biology. May be repeated, but only two hours may be applied toward a biology major. Prerequisite: ten hours of biology.

## Business Administration (BA)

**BA102. Introduction to Business (3) I, II.** Market competition and change, nature and central role of management, our business environment. Open only to freshmen

◆ **BA 203. Business Communications (3) I, II, summer.** Principles of effective communication in writing business messages such as letters, memos, resumes, and reports. Emphasis on written communication skills for use in business and public organizations. Prerequisite: ENG 112.

**BA 305. Integrating Career and Family.** For description, see HOEC 305.

**BA 325. Organization and Structure of Health Care Services Industry (3) I.** Broad dimensions and areas of health care services organizations, internal administrative processes; perspectives on comprehensive health planning and policy administration; environmental linkages to community health services agencies.

**BA 390. Introduction to Multinational Business (3)** Environment encountered by U.S. enterprises engaged in business abroad; business practices and policies for foreign operations; international organizations.

**BA 403. Government and Business (3).** Relations of all echelons of government to businessman; instances where government controls, regulates or otherwise exercises influence on actions of businessmen.

**BA 405. Business Policy and Strategy (3) I, II.** Resource allocation through administrative policies; cases and simulation games. Prerequisites: senior standing and prior completion of MGT 300, MKT 300, FIN 300, OPRE 380 and MGT 360.

**BA 406. New Enterprise Formation (3).** Entrepreneurship; systematic decision making in small companies.

**BA 429. Health Care Internship (6) I, II, summer.** Specific internship in one of following areas of administration: hospital, nursing home, governmental health agency, volunteer health agency, health research project administration; and mental hospital administration; minimum of 20 credits of elective studies aimed at preparing for internship selected with advice and consent of adviser. Graded S/U.

**BA 440. Management of International Operations** (2). Accounting, finance, marketing, management, and operational policies; practices and strategies appropriate for foreign operations. Selected case studies for special problems. Prerequisite: BA 390.

**BA 489. Business Internship** (1-3). Not open to students with credit for other 409 courses in College of Business Administration. Program must be approved in advance by college internship director. Work experience must be completed within last year prior to graduation. Graded S/U.

**BA 491. Studies in Business Administration** (1-3) On demand. In-depth study of selected areas. Offered to individual student on lecture basis or in seminar depending on student needs and nature of material. May be repeated to eight hours.

**BA 492. Studies in International Business Administration** (1-3) On demand. Independent study on subjects related to international business not otherwise offered in curriculum. Reading, report, and research assignments. May be repeated to eight hours.

**BA 495. Reading for Honors in Business Administration** (1-3) I, II, summer. Supervised, independent program of reading and study. Prerequisites: 3.0 accumulative GPA and consent of department.

## Business Education (BUSE)

◆ **BUSE 101. Business Mathematics** (3) I, II. Mathematics of finance, merchandising, and business ownership. Consumer application of business mathematics to banking, credit, interest, insurance, home ownership, wages, social security, and income taxes.

◆ **BUSE 111. Beginning Typewriting** (3) I, II. Touch typewriting for personal and business use with emphasis on skill development through technique improvement and problem typing. Four class periods. At Firelands, four class periods plus two hours lab.

◆ **BUSE 210. Advanced Typewriting** (3) I, II. Typewriting problems and projects; office production standards. Four class periods. Prerequisite: two semesters of high school typewriting or BUSE 111. At Firelands, four class periods plus two hours lab.

◆ **BUSE 211. Office Reprographics** (2) I, II. Uses, limitations, costs of modern office reproduction equipment, and processes including development of skill in use of fluid duplicator, mimeograph, offset, and copier. Three class periods. Prerequisite: BUSE 111. At Firelands, three class periods plus two hours lab.

◆ **BUSE 213. Beginning Shorthand** (3) I, II. Gregg Series 90 shorthand. Introduction to theory; transcription and speed development from 60 to 80 wpm. Four class periods. Prerequisite: BUSE 111 or concurrent registration in BUSE 111. At Firelands, four class periods plus two hours lab.

◆ **BUSE 215. Advanced Shorthand** (3) I, II. Development of speed in recording dictation from 80 to 100 wpm and transcription skills. Open to students with shorthand background in either Gregg or Century 21. Four class periods. Prerequisite: two semesters of high school shorthand or BUSE 213. At Firelands, four class periods plus two hours lab.

◆ **BUSE 220. Data Processing** (2) I, II. Processing of data using various printing and electronic calculators. Applications related to areas such as accounting, financing, and merchandising. Emphasis on development of speed and accuracy. Three class periods plus assigned laboratories. At Firelands, three class periods plus two hours lab.

◆ **BUSE 240. Business Problems of the Consumer** (3) I, II. Relationship of business practices to consumer activities. Developing consumer competencies in insurance, credit, savings, investments, housing, and estate planning. Basic economic principles underlying consumer decision-making.

**BUSE 301. Word/Information Processing** (3) I, II. Principles of organization and operation of word/information processing installations; emphasis on language arts skills, text editing equipment, and human aspects of word/information processing. Prerequisite: BUSE 111 or its equivalent.

◆ **BUSE 311. Dictation and Transcription** (3) I, II. Dictation at speeds of 90 to 120 wpm; emphasis on rapid, accurate transcription. Dictation from specialized fields – medical, legal, business, and industry. Open to students with shorthand background in either Gregg or Century 21. Four class periods. Prerequisite: BUSE 215 or consent of instructor. At Firelands, four class periods plus two hours lab.

◆ **BUSE 314. Internship in Business Education** (1-2) I, II. Supervised experience in local offices or businesses. Sixty clock hours of work required for each hour of college credit. May be repeated up to three hours. No more than one hour of credit may be granted for work in any one office or business. At Firelands, 80 clock hours of work experience for each hour of credit. Graded S/U.

◆ **BUSE 321. Computer Data Processing** (2) I, II. Computer organization and computer programming; input-output options; assigned laboratories include keypunch, video terminal, and software applications.

◆ **BUSE 335. Office and Records Management Systems** (3) I, II. Procedures for control of information and business records. Analysis of office systems, work activities, and automation for improvement of office operations.

**BUSE 352. Basic Business in Secondary Schools** (2) I, II. Principles, objectives, and methods of teaching basic business subjects; resource unit development. C/F hrs: 32.

**BUSE 354. Accounting and Data Processing in Secondary Schools** (2) I, II. Principles, objectives, and methods of teaching accounting and data processing; review of the accounting cycle. C/F hrs: 26.

**BUSE 356. Shorthand and Secretarial Practice in Secondary Schools** (1) I, II. Principles, objectives, and methods of teaching shorthand, transcription, and secretarial practice. C/F hrs: 30.

**BUSE 358. Typewriting and Clerical Practice in Secondary Schools** (1) I, II. Principles, objectives, and methods of teaching typewriting, and clerical practice. C/F hrs: 30.

**BUSE 364. Distributive Education in Secondary Schools** (3) I, II. Principles, objectives, and methods of teaching vocational and relative subject matter in distributive education.

**BUSE 370. OWA Organization and Program Coordination** (3) I. Principles, objectives, and methods of teaching Occupational Work Adjustment; program philosophy, organization, coordination, student selection, and youth activities.

**BUSE 395. Workshop in Business and Distributive Education** (1-3) Summer. Areas of current interest to teachers in business and distributive education. Possible areas include youth with special needs, cooperative education, vocational education for adults, intensive programs, post-secondary programs, and technical programs.

◆ **BUSE 401. Secretarial Administration** (3) I, II. Intensive study of procedures, skills, and knowledges basic to secretarial administrative positions; refinement of secretarial-management operations and office simulations. Prerequisites: BUSE 210 and BUSE 215.

**BUSE 441. Consumer Economics in the Schools** (3) Alternate II, alternate summers. Need for consumer economics. Organization and integration of consumer economics in school programs. Consumer and business background information.

**BUSE 455. Administrative Management** (3) I, II. Principles and practices of managing office personnel and operations. Selecting, developing, motivating, and appraising office employees. Office layout and design, work measurement, and work standards.

**BUSE 461. Development of Instructional Materials in Distributive Education** (2) I. Methods of developing teaching materials in distributive education.

**BUSE 462. Coordination in Cooperative Vocational Education** (2) II. Coordination in high school, post-high school, and adult education programs for vocational distributive education. Not open to students taking BUSE 468. C/F hrs: 14.

**BUSE 463. Community Planning in Adult Vocational Education** (3) I. Identification of adult needs, procedures for organizing and promoting adult programs in vocational education, selecting and training adult leaders, and financing adult programs.

**BUSE 465. Development and Administration of Vocational Education** (3) II. Vocational education as sponsored by federal, state, and local legislation.

**BUSE 468. Vocational Business and Office Education** (4) I, II. Program construction, organization, improvement, implementation, evaluation, and development of program guides for both intensive and cooperative vocational business and office education. C/F hrs: 28.

**BUSE 469. OWA Curriculum and Instructional Procedures** (3) II. Curriculum development for vocational work experience programs including instructional learning packets, course of study, teaching methodology, and techniques.

**BUSE 470. Studies in Business and Distributive Education** (1-2) I, II. Offered on individual, seminar, or lecture basis. Treatment of selected areas in depth depending on student needs and nature of material. May be repeated up to four hours. Prerequisite: consent of instructor. Graded S/U.

\*\*The student with two semesters of high school typewriting and/or shorthand should enroll in BUSE 210 and/or BUSE 215. Those who choose to enroll in lower level courses will not receive credit toward graduation.

**BUSE 497. Student Teaching (1-10) I, II.** Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

## Business Management Technology (BAT)

†**BAT 100. Real Estate Principles and Practices (2) II, summer.** Foundation for further study and partial preparation for securing a salesperson's license. Contracts, financing, deed, title, escrow, closing estates, civil rights ethics, license law, leases, brokerage, total investment decision, appraisal fundamentals, and commercial-investment properties.

†**BAT 101. Real Estate Law (2) I, II, summer.** Basic legal framework for subject of real estate. The legal system, estates in land, contracts for the sale of land, deeds, agency relationship, regulations covering brokers and salespersons, evidence of title, mortgages and other liens, civil rights, landlord-tenant, public control of land use, organized forms of multiple ownership, wills and estates.

†**BAT 102. Introduction to Business Technology (3) I, II.** Business technical process including structure of business and functions of marketing, production, finance, personnel, technical processes of control, and responsibilities of business. Two hours lecture, three hours field study.

†**BAT 201. Human Resources in Management (4) I.** Basic concepts, principles and functions of management and personnel administration. Acquisition, development, utilization and maintenance of an effective work force; recruitment and selection, testing, interviewing, counseling, developing and compensating employees. Three hours of lecture, three hours field study.

†**BAT 203. Production Management (3) II.** Analyze operations of the firm. Fundamentals of production; design of production systems, operations, coordination and control of production activity, major analytical tools for management. Two hours lecture, three hours field study. Prerequisite or corequisite: STAT 211.

†**BAT 204. Marketing (3) I.** Introduction of organization, management, and practice of marketing by business firms. Two hours lecture, three hours field study.

†**BAT 205. Human Relations in Business (3) I, II.** Principles of effective management of human resources. Analysis of reactions, interactions, attitudes and activities of persons within goal-seeking organizations; leadership, morale, goal-oriented behavior, relationships between supervisors and subordinates. Two hours lecture, three hours field study.

†**BAT 207. Business Finance (3) II.** Funds allocation and acquisition process of the firm, financial planning, capital budgeting, capital structure, longterm and shortterm financing. Two hours lecture, three hours field study.

†**BAT 208. Advertising (3) II.** Design, layout, production and placement of advertising, historical and cultural precedents of modern advertising. Prerequisite: BAT 204 or permission of instructor.

†**BAT 210. Principles of Banking (2) I, II.** Fundamentals of banking functions, language and documents of banking, check processing, teller functions, deposit function, trust services, bank bookkeeping and bank loans and investments.

†**BAT 211. Money and Banking (3) I.** Basic monetary theory and policy, emphasis on function of the banking system in the economy; structure of commercial banking system, creation of bank deposits, Federal Reserve policy and operations. Treasury money market operations, the pricing of money, and international financing problems.

†**BAT 212. Installment Credit (2) I, II.** Basic knowledge of installment credit and its administration; emphasis on establishing credit, obtaining credit information, and loan servicing and administration; inventory loans, rate structure and advertising.

†**BAT 213. Real Estate Finance (3) I, II.** Home mortgage investment by savings and commercial banks; channeling of money into mortgages, home mortgage lendings, special purpose mortgages, and the administration of mortgage accounts.

†**BAT 214. Banking Law (2) I, II.** Consumer protection, real property, personal property and sales, the uniform commercial code, negotiable instruments and bank collections, and secured financing.

†**BAT 215. Real Estate Appraisal (2) I, II, summer.** Three basic techniques of appraising — market comparison, cost of replacement, and income capitalization. The appraising process, understanding value, basic valuation principles, general market analysis, sites and improvements analysis, market data approach, income approach, and reconciliation and the final value estimate. Prerequisites: BAT 100 and BAT 101 or permission of instructor.

†**BAT 216. Real Estate Finance (2) I, II, summer.** Instruments of real estate finance such as mortgages, lien and title theories, leases and land contracts. Other topics including mortgage payment patterns, single family properties, mortgage market, major lenders, government and real estate, and special topics. Prerequisites: BAT 100 and BAT 102 or permission of instructor.

†**BAT 217. Real Estate Brokerage (2) II Alternate years.** Operation of a brokerage business. Includes the opportunity to expand knowledge of broker-client relationship, office management, selection of sales personnel, training salespersons, and a policy and procedure manual for the brokerage office. Prerequisites: BAT 100 and BAT 101 or permission of instructor.

†**BAT 218. Special Topics in Real Estate (2) II: Alternate years.** A sample property case study is covered. Other subjects include single family housing design and construction, residential land development, condominiums and cooperatives, farm, rural, commercial, and industrial real estate, federal taxation of real estate, and federal, state, and local regulatory controls. Prerequisite: BAT 100, 101, 215, 216 or permission of instructor.

†**BAT 250. Marketing Research (2) Summer.** Secondary information sources and technique alternatives, sampling, response, and interpretive problems. Computer analysis introduced. Prerequisite: BAT 204 or consent of instructor.

†**BAT 290. Studies in Business (1-3) I, II, summer.** Business study projects, seminars and other forums in the fields of marketing, personnel, management, human relations, production, finance, computer science, law or economics. Prerequisites: sophomore standing and appropriate prior course work.

†**BAT 291. Field Experience (1-3) I, II, summer.** Ten weeks of work in an appropriate business field to be decided in consultation with student's adviser. Prerequisite: permission of work supervisor and adviser.

## Center for Educational Options (CEO)

**CEO 101H. Evaluating Social Controversies (5) I, II.** Interdisciplinary inquiry in social sciences. Analysis of arguments through assumption, ambiguity, data, and fallacies; formulation of conclusions and alternative inferences; value assumptions and decision making.

◆ **CEO 121. Transition Course (1) I, summer.** Transition to University life through orientation to university facilities and options; activities stressing study skills and personal growth.

**CEO 124. State Government (1) Summer.** Issues of government, governmental processes at local and state levels, societal and governmental influences on electoral process. For Boys State students.

◆ **CEO 131. Career Planning and Decision Making (2) I, II, summer.** Intense investigation of self in relation to academic and career planning, and opportunities within world of work; decision-making theories and career research activities.

◆ **CEO: 201. Independent Studies (1-15) I, II, summer.** Research or project designed by student under general supervision of faculty member. Open to any sophomore, junior or senior. Contact Center for Educational Options prior to registration. Graded S/U.

**CEO 401. Independent Studies (1-15) I, II, summer.** Research or project designed by student under general supervision of faculty member. Open to any sophomore, junior or senior. Contact Center for Educational Options prior to registration. Graded S/U.

**CEO H140. Honors Seminar: Social Sciences (4) I.** Interdisciplinary social science seminar that integrates at least two different social sciences. Students select one discipline to emphasize, e.g., history or sociology, but one class a week will be devoted to integrating the disciplines involved. Content and skills will relate to both specific disciplines involved. Content and skills will relate to both specific disciplines and social sciences in general. Satisfies social science group credit. Prerequisite: admission to the honors program or permission of honors director.

**CEO H160. Honors Seminar: Humanities (4) II.** Interdisciplinary humanities seminar that integrates at least two different humanities. Students select one discipline to emphasize, e.g., art, literature, but one class a week will be devoted to integrating all disciplines involved. Content and skills will relate to both specific disciplines and humanities in general. Satisfies humanities group credit. Prerequisite: admission to the honors program or permission of honors director.



## Chemistry (CHEM)

- ◆ **CHEM 100. Introduction to Chemistry** (3) I, summer. Non-laboratory examination of basic chemical concepts and role of chemistry in modern society. For students not majoring in sciences. Not counted toward chemistry major or minor.
- ◆ **CHEM 104. Chemistry for Elementary Teachers** (2) I, II. Non-laboratory examination of basic chemical concepts, vocabulary and history as well as role of chemistry in modern society. Not counted toward chemistry major or minor. Prerequisite: PHYS 101 or PHYS 104.
- ◆ **CHEM 115. Elementary Chemistry** (4) I, II, summer. General chemistry and introduction to organic chemistry. Not accepted toward chemistry major or minor. Three lectures, one three-hour laboratory. Prerequisites: two years of high school science; high school algebra or its equivalent.
- ◆ **CHEM 116. Elementary Organic and Biochemistry** (4) II, summer. CHEM 115 continued. Not accepted toward chemistry major or minor. Three lectures, one three-hour laboratory. Prerequisite: CHEM 115.
- ◆ **CHEM 125. General Chemistry** (5) I, II, summer. Chemistry sequence for students majoring in sciences, the liberal arts or in pre-medical programs. Three lectures, one recitation, one three-hour laboratory. Prerequisite: high school chemistry, algebra, and geometry, or CHEM 115. (Credit for graduation for CHEM 115 or CHEM 125, but not both.)
- ◆ **CHEM 126. General Chemistry** (5) II, summer. CHEM 125 continued, including qualitative analysis. Three lectures, one recitation, one three-hour laboratory. Prerequisite: "C" or better in CHEM 125 or CHEM 135.
- ◆ **CHEM 135. General Chemistry** (5) I. General chemistry sequence for well-prepared student. Three lectures, one recitation, one three-hour laboratory. Prerequisites: high school chemistry and consent of instructor. Corequisite: MATH 130 or MATH 131.
- ◆ **CHEM 136. General Chemistry** (5) II. CHEM 135 continued. Emphasis on quantitative procedures in laboratory. Three lectures, two three-hour laboratories. Prerequisite: "C" or better in CHEM 135.
- ◆ **CHEM 200. Bio-Organic Chemistry and You** (2) I, II. Non-mathematical course for non-scientist in topics of contemporary concern. Effect of chemistry on society, chemistry for the consumer, regulatory agencies, chemistry in the news, and other topics in organic and biochemistry. Not open to freshmen; not accepted toward chemistry major or minor. No prerequisites.
- ◆ **CHEM 201. Quantitative Chemical Analysis** (3) I, II, summer. Theory and practice of quantitative analytical procedures, volumetric and gravimetric methods. Two lectures, one three-hour laboratory. Prerequisite: CHEM 126.
- ◆ **CHEM 299. Semester Transition Course** (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course portion replaced. Prerequisite: consent of department.
- ◆ **CHEM 306. Organic Chemistry** (4) I, II, summer. For students whose program does not require full-year course. Not accepted toward a chemistry major. Three lectures, one three-hour laboratory. Prerequisite: CHEM 126 or CHEM 136.
- ◆ **CHEM 308. Basic Biochemistry** (3) I, II. Structure, chemical, physical, and metabolic properties of bioorganic molecules. For students whose program does not require full-year course. Prerequisite: CHEM 306. BIOL 104 and CHEM 201 recommended.
- ◆ **CHEM 309. Elementary Biochemistry Laboratory** (1) I, II. Basic biochemical techniques. One three-hour laboratory. Prerequisite or corequisite: CHEM 308 or CHEM 445.
- ◆ **CHEM 313. Special Topics in Chemistry** (1-3) I, II, summer. Specific topics of current interest in chemistry. Not applicable toward minimum 32-hour major or 20-hour minor. May be repeated with different topics.
- ◆ **CHEM 321. Survey of Instrumental Analysis** (3) II. Elementary instrumental methods of analysis. Primarily for biology and med-tech majors. Two lectures, three hours of laboratory. Prerequisites: CHEM 201 and either PHYS 212 or PHYS 202.
- ◆ **CHEM 341. Organic Chemistry** (5) I, summer. Structure and reactivity of organic substances. Four lectures, one three-hour laboratory. Prerequisite: CHEM 126 or CHEM 136.
- ◆ **CHEM 342. Organic Chemistry** (5) II, summer. CHEM 341 continued. Three lectures, two three-hour laboratories. Prerequisite: "C" or better in CHEM 341.
- ◆ **CHEM 352. Physical Chemistry** (3) I. For students whose program does not require full-year course. Prerequisites: CHEM 201 (or CHEM 136) and MATH 130. MATH 131 recommended. Prerequisite or corequisite: PHYS 202 or PHYS 212.
- ◆ **CHEM 395. Workshop on Current Topics** (1-3). Intensive course on selected topics. May be repeated if topics differ. Does not apply toward first 20 hours of minor or first 32 hours of major.
- ◆ **CHEM 402. Numerical Methods in Chemistry** (1) II. Use of computers and numerical methods in chemistry; survey of computer graphics and microcomputer-based instrumentation in chemical research. Prerequisite or corequisite: CHEM 405.
- ◆ **CHEM 405. Physical Chemistry** (4) I, summer. Thermodynamics and quantum chemistry. Prerequisite: CHEM 201 (or CHEM 136) and MATH 232, and either PHYS 212 or PHYS 202.
- ◆ **CHEM 406. Physical Chemistry** (4) II, summer. CHEM 405 continued. Electrochemistry, kinetics, spectroscopy and molecular structure. Prerequisite: CHEM 405.
- ◆ **CHEM 407. Integrated Analytical and Physical Laboratory** (2) I. Principles of measurement; spectral, chromatographic and electroanalytical techniques; thermodynamic and kinetic measurements; computerized data acquisition. Two three-hour laboratories. Prerequisite or corequisite: CHEM 405.
- ◆ **CHEM 408. Integrated Analytical and Physical Laboratory** (2) II. CHEM 407 continued. Prerequisite: CHEM 407; prerequisite or corequisite: CHEM 406.
- ◆ **CHEM 413. Special Problems** (1-3) I, II, summer. Independent study and research. Three to nine hours of laboratory, one half-hour conference each week. Not applicable toward minimum requirements of major or minor. Prerequisite: consent of instructor, 20 hours of CHEM or consent of department, 2.5 minimum overall GPA. May be repeated, but no more than six hours credit may be applied toward degree.
- ◆ **CHEM 442. Organic Reaction Mechanisms** (3) II. Fundamentals of organic reaction mechanisms and methods for their elucidation. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 405.
- ◆ **CHEM 445. General Biochemistry** (3) I. Structure, function, chemical and physical properties of bioorganic molecules. Prerequisites: CHEM 342 and either CHEM 352 or CHEM 406, or permission of instructor.
- ◆ **CHEM 446. Biochemistry Laboratory** (1) I. Experimental techniques in biochemistry. Three-hour laboratory. Prerequisite or corequisite: CHEM 445.
- ◆ **CHEM 447. General Biochemistry** (3) II. Metabolism, energetics, and regulation of bioorganic molecules. Prerequisite: CHEM 445.
- ◆ **CHEM 449. Advanced Biochemistry Laboratory** (2) II. Research techniques in biochemistry. Two three-hour laboratories. Prerequisite: CHEM 446 or permission of instructor.
- ◆ **CHEM 453. Environmental Chemistry** (2) I. Alternate years. Sources, reactions, transport, and fates of chemical species in water, soil and air environments. Prerequisites: CHEM 136 (or CHEM 201), CHEM 306 (or CHEM 342), and CHEM 352 (or PHYS 202).
- ◆ **CHEM 454. Instrumental Methods of Analysis** (3) II. Theory of instrumental methods of analysis including electroanalytical, spectroscopic and chromatographic methods. Prerequisite: CHEM 408 or consent of instructor.
- ◆ **CHEM 463. Advanced Inorganic Chemistry** (4) I. Chemical bonding, stereochemistry, acid-base chemistry, periodicity, nonmetal and transition metal chemistry, organometallic and bioinorganic chemistry. Prerequisite: CHEM 342, CHEM 406.
- ◆ **CHEM 466. Spectroscopic Methods in Organic Chemistry** (2) I. Organic structure determination by spectroscopic techniques, with emphasis on infrared, ultraviolet, and nuclear magnetic resonance spectroscopy, and mass spectrometry. Also includes a brief introduction to related spectroscopic methods. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 405.
- ◆ **CHEM 467. Environmental Toxicology** (4) I. Limited to students in environmental toxicology planned program or by permission of instructor. Three lectures, one three-hour laboratory.
- ◆ **CHEM 468. Environmental Toxicology** (4) II. CHEM 467 continued. Three lectures, one three-hour laboratory. Prerequisite: CHEM 467.
- ◆ **CHEM 483. Advanced Topics in Chemistry** (1-3) I, II, summer. Rigorous study of specific topics of current interest. Not applicable toward minimum 32-hour major or 20-hour minor. May be repeated with different topics. Prerequisite: CHEM 342 or consent of instructor.

## College Student Personnel (CSP)

- ◆ **CSP 480. Seminar in College Student Personnel** (1-3) II. Analysis of issues, practices, and trends in post-secondary student personnel work.
- ◆ **CSP 481. Introduction to Residence Life for the Paraprofessional** (1) II. Philosophy, skills, competencies of program development and management of university residence units.
- ◆ **CSP 482. Peer Advising Skills** (1) I, II. Development of fundamental human relations skills used by peer advisers: listening, interviewing, information sharing, decision making and problem solving.

No credit for two courses in any one of the following groups: CHEM 100, 104, 115, 125, 135; CHEM 126, 136; CHEM 116, 306, 341; CHEM 116, 308, 445; CHEM 321, 454; CHEM 352, 405.



**CSP 485. Peer Advising Practicum** (1-2) I, II. Supervised peer advising experience in appropriate pre-designated setting. May be repeated with approval of department. Prerequisite: CSP 482 or consent of instructor. Graded S/U.

## Communication Disorders (CDIS)

(See speech communication)

## Computer Science (CS)

- ◆ **CS 100. Computer Basics** (3) I, II, summer. Computer technology and related social issues. Students do programming using BASIC language. Hardware, software, applications in diverse areas. Problems concerning computerized services, data banks, governmental controls. Not open to students with credit in another CS or MIS course. Credit not applicable toward major or minor in computer science.
- ◆ **CS 101. Introduction to Programming** (3) I, II, summer. Algorithms; programming in FORTRAN; introduction to computer organization; structured programming techniques. Several programming assignments required. For students without extensive programming experience. Not open to students with credit for another CS or MIS course. Prerequisite: two years of high school algebra or MATH 095 or 096.
- ◆ **CS 103. FORTRAN Programming** (3) I, II, summer. FORTRAN for students with extensive programming experience. Algorithms; structured programming techniques. Several programming assignments required. Prerequisite: prior programming experience in any computer language. Not open to students with credit for CS 101.
- ◆ **CS 180. Introduction to Programming** (1-3). Programming techniques in particular language. Credit not applicable toward major or minor requirements. May be repeated up to total of three hours, with consent of department.
- ◆ **CS 201. Assembler Language Programming** (3) I, summer. Basic computer organization; data representations; addressing techniques; subroutines and macros. IBM 370 assembler language. Prerequisite: Grade of "C" or better in CS 101 or CS 103.
- ◆ **CS 202. Systems Programming** (3) II. Principles of systems programming, including reentrancy and I/O concepts. Techniques for developing loaders, assemblers, and macro processors. Large implementation project required. Prerequisite: CS 201.
- ◆ **CS 205. Advanced Programming Techniques** (3) I, II. Programming in PASCAL. File processing, including sequential and random files. Recursion. Large program development. Linked lists using arrays. Interactive text editing and utility routines. Prerequisite: Grade of "C" or better in CS 101 or CS 103.
- ◆ **CS 260. Business Programming Principles** (3) I, II. Assembler language programming; hardware/software technology. Does not apply to major or minor in computer science. Not open to students with credit for CS 201. Prerequisite: MIS 200.
- ◆ **CS 305. Data Structures** (3) I. Implementation and applications of commonly used data structures, including stacks, queues, trees, and linked lists. Storage allocation and collection; hashing techniques; searching and sorting. Use of PASCAL language, including pointer variables. Prerequisites: CS 201 and CS 205.

**CS 306. Programming Languages** (3) II. BNF description of programming languages. Significant features of existing programming languages. Structure and comparison of languages for numeric and nonnumeric computation. Languages studied typically include PL/1, SNOBOL, and APL. Prerequisite: CS 205.

**CS 307. Computer Organization** (3) II. Components of digital computer hardware: flip-flops, registers, adders, memory devices. Computer system organization: control structure, addressing, interrupts, I/O. Prerequisite: CS 201.

**CS 313. Elementary Mathematical Logic** (3). Propositional and predicate logic; nature of mathematical proof; applications to mathematics and computer science. Not open to students with credit for MATH 313.

◆ **CS 360. COBOL Programming** (3) I, II, summer. COBOL programming language and techniques for use; report generation; table handling; sorting; sequential and random-access data files; debugging techniques; COBOL standards. Prerequisite: Grade of "C" or better in CS 101 or CS 103 or CS 260.

◆ **CS 390. Practicum in Computer Science** (1-6). For students working in internship or co-op programs. Written report required. Does not apply to major or minor in computer science. May be repeated to six hours. Prerequisite: consent of department. Graded S/U.

**CS 407. Advanced Computer Organization** (3). Evolution of computer systems. Detailed studies of several selected computer organizations; comparison of functional components and overall designs. Prerequisite: CS 307.

**CS 408. Operating Systems** (3) I. Structure of operating systems. Physical input-output, buffering, interrupt processing. Memory, processor, device, information management; resource management interdependencies. Prerequisites: CS 202 and CS 306.

**CS 409. Language Design and Implementation** (3) I. Fundamental concepts of languages. Processors, data, operations, sequence control, data control, storage management, syntax, translation. Prerequisites: CS 202 and CS 306.

**CS 410. Formal Language Theory** (3) I. Various types of languages (context-sensitive, context-free, finite-state). Discussion of recognition devices such as pushdown automata, linear bounded automata, and Turing Machines. Some topics of current interest.

**CS 420. Artificial Intelligence and Heuristic Programming** (3) II. Definition of heuristic vs. algorithmic methods. Topics from areas of game playing, theorem proving, pattern recognition, question answering programs, natural language processing. Programming project or report usually required. Prerequisite: CS 305.

**CS 425. Computer Graphics** (3) I. Graphic I/O devices; 2-dimensional and 3-dimensional display techniques; display processors; clipping and windowing; hidden line removal; data structures for graphics. Prerequisites: CS 205 and MATH 222.

**CS 428. Microcomputer Systems** (3) II. Architecture of microcomputers; programming techniques for small computers; operating systems; I/O techniques. Detailed study of a specific microcomputer system. Prerequisite: CS 202.

**CS 440. Optimization Techniques** (3) I. Linear programming, game theory, PERT, network analysis; duality theory and sensitivity analysis; applications. Computer programs written to implement several techniques. Prerequisites: CS 101 or 103 and MATH 131.

**CS 442. Techniques of Simulation** (3) II. Principles of simulation and application of several simulation languages to both continuous and discrete systems. Prerequisites: CS 101 or 103 and MATH 131.

**CS 451. Numerical Analysis** (3) I. Development of numerical methods that are efficient, accurate, and suitable for high-speed digital computation; zeros of polynomial and transcendental functions; numerical differentiation and integration; solution of linear systems by direct and iterative methods. Selected algorithms programmed for solution on computer. Prerequisites: CS 101 or CS 103, and MATH 332. Not open to students with credit for MATH 451.

**CS 452. Numerical Analysis** (3) II. Matrix inversion, computation of eigenvalues and eigenvectors of matrices; least squares, trigonometric, and Chebyshev approximation; numerical solution of initial value and boundary value problems in ordinary differential equations, numerical solution of partial differential equations. Prerequisites: CS 101 or CS 103, and MATH 337. Not open to students with credit for MATH 452.

**CS 462. Database Management Systems** (3) I, II, summer. Logical aspects of database processing. Concepts of organizing data into integrated database. Hierarchical, network, and relational approaches studied. Prerequisite: CS 360.

**CS 464. Software Development** (3) II. In-depth study of all aspects of software development process: user requirements, specifications, design, coding, testing, maintenance, documentation, management. Team development of large software project. Prerequisites: CS 201 and CS 205.

**CS 480. Seminar in Computer Applications** (1-3). Prerequisite: consent of instructor. May be repeated up to six hours.

**CS 490. Independent Project** (1-3). Readings and/or computer implementations in area of interest to individual student. Does not apply to major or minor in computer science. May be repeated up to six hours. Graded S/U.

## Computer Science Technology (CST)

† **CST 100. Computer Logic and Flowcharting** (1) I, II, summer. Thinking through and planning solutions to computer related programs. Computer terminology and equipment also investigated. Not open to students with credit from MIS 200 or other CST or CS classes.

† **CST 171. Terminal Operations** (1) I, II, summer. Remote entry terminals, operating systems, commanding line, operation of local terminal interpreter related to operation of RJE; visits to operation site. Three hours of laboratory. Hours arranged. Prerequisites: enrollment in CST program and permission of instructor.

† **CST 221. Systems and Procedures I** (1) I. Analysis of business information systems; designing a business system; file design, audit controls. Techniques for implementing basic systems documentation, and business forms control. One hour lecture, two hours laboratory. To be taken concurrently with CS 360. Lab fee.

† **CST 231. Techniques of RPG Programming** (3) II, summer. Basic elements in programming techniques using the RPG II Language. Further work on file organization, table look-up, JCL, chaining, records, and error analysis. A problem-oriented language to maximize time spent on solutions rather than machine characteristics. Two hours lecture, seven hours laboratory. Lab fee.

†**CST 232. Systems and Procedures II** (4) II. Continued study of principles in the design and application of data processing systems in business. Analysis of cost controls, operations research, and the integrated management information system. Two hours lecture, seven hours laboratory. Prerequisites: CST 221 and CS 360, or consent of instructor. Lab fee.

†**CST 250. Diagnostic Assembler** (3) Summer. A survey of assembler language programming techniques for use on microcomputers. Instruction will reflect the use of the Z-80 and 8085 microprocessors. Lab fee.

†**CST 260. Advanced Electronic Data Processing** (4) I, II, summer. Extended programming techniques using the BASIC language and word processing; accessing files, arrays, systems analysis, system design, string operations, layout forms and structured programming. Two hours lecture, seven hours laboratory. Prerequisite: MIS 200 or CS 104. Lab fee.

†**CST 291. Student Intern Program** (2) I, II, summer. Ten weeks of paid field work in data processing applications under the supervision of a governmental, industrial, or private business concern. Prerequisite: permission of instructor.

## Construction Technology (CONS)

(See technology)

## Criminal Justice (CRJU)

**CRJU 210. Introduction to Criminal Justice** (3) I, summer. Philosophical, historical, operational aspects of criminal justice agencies and processes in a framework of social control in a democracy. Crime and corrections problems and response of criminal justice agencies to them.

**CRJU 220. Law Enforcement Organization and Administration** (3) I. Organization and management applied to law enforcement agencies. Theoretical and practical aspects of management factors such as organization, decision making, values, human relations, power. Prerequisite or corequisite: CRJU 210.

**CRJU 230. Criminal Investigations** (3) I. Investigator's role in criminal investigations. Theoretical considerations of that role in relation to other police activities. Techniques of preservation of evidence, sources of information, processes of specialized investigations. Prerequisite or corequisite: CRJU 210.

**CRJU 240. Police-Community Relations** (3) I. Relationships between community and police; attitudes and perceptions; emphasis on human relations methodology in improving relationships; role of police administrator. Prerequisites or corequisites: CRJU 210 and SOC 101 and PSYC 201.

**CRJU 310. Criminal Law** (3) I. Elements of proof in crimes of frequent concern in law enforcement; emphasis on principal rules of criminal liability, penal statutes, current case law. Law of arrest, search and seizure; theoretical consideration of criminalization of conduct and appropriateness of criminal sanctions. Prerequisite: for law enforcement majors, CRJU 210; for others, permission of instructor.

**CRJU 470. Independent Study in Criminal Justice** (1-3) I, II, summer. Student designs and carries out study or special project in area of interest. Prerequisite: consent of program director. May be repeated.

**CRJU 480. Special Problems in Criminal Justice** (3) Summer. Consideration and evaluation of selected policies and practices in criminal justice field, both law enforcement and corrections; attempt to integrate criminal justice field and to focus on common problems and concerns. Problems of theoretical and practical nonconvergence. Individual research interests explored, formalized, reported. Required of all CRJU majors. Prerequisites: senior standing and completion of 25 hours of CRJU courses, or equivalent.

**CRJU 491. Practicum** (1-12) I, II, summer. Experience working in law enforcement and/or correction agency under supervision. Emphasis on practice rather than observation. May be repeated. Prerequisite: permission of program director. Graded S/U.

## Design Technology (DESN)

(See technology)

## Economics (ECON)

**ECON 100. Development of the American Economy** (3) I, II. Study from colonial times to present to provide perspective for understanding current economic problems. How Americans lived, changes in population and income distribution, agriculture, industry, technological change, labor, transportation, money and banking, foreign trade, role of government.

◆ **ECON 200. Introduction to Economics** (3) I, II. Alternative economic goals; economic growth, full employment, price stability, fair income distribution, economic security, economic freedom, consumer sovereignty, efficiency. Recommended for students taking only one ECON course. Not open to students required to complete ECON 202.

◆ **ECON 202. Principles of Economics** (3) I, II. Demand and supply; price theory; product and factor markets; income distribution; comparative systems; current problems and public policy. Recommended before ECON 203. Prerequisite: sophomore standing.

◆ **ECON 203. Principles of Economics** (3) I, II. American economy, national income and employment, banking system, monetary and fiscal policy; economic growth and development; international economics. Prerequisite: sophomore standing. ECON 202 recommended.

**ECON 302. Intermediate Microeconomic Theory** (3) I, II. Theory of demand, of the firm, of production and distribution; economics of pure competition. Factor price determination. Prerequisites: ECON 202 and ECON 203.

**ECON 303. Intermediate Macroeconomic Theory** (3) I, II. Concepts and measurement of national income. Analysis of forces determining level of national income and employment, price level, and rate of economic growth. Prerequisites: ECON 202 and ECON 203.

**ECON 304. Managerial Economics** (3) I, II. Application of economic theory to decision-making problems of the firm; demand analysis and sales forecasting; theory of production and cost analysis; pricing practices and policies; capital budgeting. Prerequisites: ECON 202 and ECON 203 and STAT 212.

**ECON 311. Money, Banking, and Public Policy** (3) I, II. Nature and functions of money and commercial banking system. Means of monetary regulation and control. Role of money and monetary policy in affecting total economic activity. Prerequisites: ECON 202 and ECON 203.

**ECON 321. Labor Economics** (3) I, II. Economics of manpower employment and labor market; labor organizations, collective bargaining, regulation of labor by government, wage determination, unemployment and social security. Prerequisites: ECON 202 and ECON 203.

**ECON 323. Poverty, Unemployment, and Income Maintenance** (3) II. Structural and cyclical unemployment, alternative responses to poverty, evaluation of training programs and welfare schemes. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

**ECON 331. Public Finance** (3) I, II. Survey of government finance. Public expenditures, taxation, and debt; emphasis on federal level. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

**ECON 332. State and Local Government Finance** (3) I or II. Economic functions of state and local governments; revenue sources, expenditures, debt, and intergovernmental fiscal relations. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

**ECON 351. International Trade and Finance** (3) I. Structure and regulation of foreign trade, mechanics of international finance, new elements in U.S. foreign trade. Prerequisites: ECON 202 and ECON 203.

**ECON 400. Mathematics for Economists** (3) I. Elementary mathematical methods and basic applications to economic theory. Not open to students who have had MATH 231 or above.

**ECON 401. Mathematical Economics** (3) II. Economic theory in mathematical context; microeconomic and macroeconomic models, their structure and analysis. Constrained optimization. Prerequisites: ECON 400 or equivalent of calculus, and ECON 302 or ECON 303.

**ECON 402. Econometrics** (3) II. Statistical techniques used to measure economic data and to test validity of theoretical models. Prerequisites: STAT 212 and ECON 400, or equivalent; or consent of instructor.

**ECON 404. Business Conditions** (3) II. Components of gross national product, statistical measurement of business fluctuations. Determinants of the level of economic activity. Keynesian, monetarist and other theories of business cycles. Methods of macroeconomic forecasting. Prerequisites: ECON 303 or ECON 311, and STAT 212.

**ECON 414. Monetary and Fiscal Policy** (3) II. Objectives, means, and analysis of monetary and fiscal control; effect on total economic activity. Prerequisite: ECON 303 or ECON 311.

**ECON 422. Labor Relations Policy** (3) I. Economic effects of government policy towards organized labor. Collective bargaining implications of pertinent federal and state legislation. Prerequisite: ECON 203.

**ECON 423. Labor-Management Relations** (3) II. Employer-employee relations; collective bargaining process; conciliation, mediation, arbitration procedures. Prerequisite: ECON 203.

**ECON 424. Income, Wages, and Welfare: Analysis and Policy** (3) On demand. Theories of income and wage determination. Effect of employers and labor organizations and economic effects of various income policies. Prerequisites: ECON 202 and ECON 203.

**ECON 425. Health Care Economics (3)** On demand. Economic analysis of health care delivery system in U.S. Consumer's demand for health care, supply of health care by physicians and hospitals, evaluation of policy issues relating to health care. Prerequisites: ECON 202 and ECON 203.

**ECON 435. Economics of Energy and the Environment (3)** On demand. Methods and research techniques applicable to energy and environmental problems; evaluation of alternative public economic policies for energy and environmental control. Prerequisites: ECON 202 and ECON 203.

**ECON 436. Economics of Public Expenditures (3)** I. Purposes and economic effects of governmental expenditures; budgeting techniques and their effects on resource allocation. Prerequisites: ECON 202 and ECON 203.

**ECON 441. Real Estate Finance and Capital Markets (3)** II. Market factors affecting residential property values, private sources of funds, role of governmental agencies in residential markets. Prerequisites: ECON 202 and ECON 203. Not for arts and sciences credit.

**ECON 447. Economics of Regulated Industries (3)** II. Historical development of public regulation of certain industries, including transportation; methods of regulation and evaluation of public policy towards regulated industries. Prerequisites: ECON 202 and ECON 203.

**ECON 451. International Economics (3)** I. Theory of international economics; international trade as factor in national income; significance of international investment, public policies to promote trade, international economic cooperation. Prerequisite: ECON 351 or consent of instructor.

**ECON 452. International Monetary Economics (3)** II. Alternative international monetary systems; emphasis on present system. Prerequisites: ECON 311 and ECON 351, or consent of instructor.

**ECON 454. Economic Development (3)** I. Obstacles to and current efforts for promotion of economic growth in emerging nations. Prerequisite: ECON 202 or consent of instructor.

**ECON 460. Regional Economics (3)** I. Location and land use theories, central place theory, tools of regional analysis, regional growth theory, and regional public policy issues. Prerequisites: ECON 202 and ECON 203.

**ECON 462. Urban Economics (3)** II. Urban spatial theory and analysis, economic analysis of urban problems including poverty, housing, transportation, the environment, and public finance. Prerequisites: ECON 202 and ECON 203.

**ECON 471. Industrial Organization: Study of Business Size and Competition (3)** II. Forces that lead to bigness and resulting impact of bigness on competition; public policy, including regulation, designed to cope with business size. Prerequisite: ECON 202 or consent of instructor.

**ECON 472. Comparative Economic Systems (3)** II. Economic structures, conditions, problems, and policies in a selection of countries. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

**ECON 473. History of Economic Thought (3)** I. Development of economics and economic analysis from Adam Smith to J.M. Keynes. Prerequisites: ECON 202 and ECON 203.

**ECON 475. Economics of Public Education (1-3)**. Education as investment in human capital; financing of education and relationship to federal monetary and fiscal policies and to state and local government finance. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

**ECON 476. Seminar in Contemporary Economic Problems (3)** On demand. Interested students should consult with chair of department.

**ECON 491. Studies in Economics (1-3)** On demand. Treatment of selected areas in depth. Offered to individual on lecture basis or in seminar depending on student needs and material. May be repeated to six hours.

**ECON 495. Readings for Honors in Economics (3-6)** I, II. For economics major with accumulative GPA of 3.0; normally culminates in treatise or comprehensive examination which must receive approval of department. Consult department chair. Prerequisite: consent of department.

## Education Special (EDSE)

**EDSE 311. Exceptional Child in Regular Classroom (2)** I, II. Teaching exceptional handicapped children in alternative settings. C/F hrs.: 10.

**EDSE 395. Workshop on Current Topics (3)** I, II. On demand. Intensive educational experience related to skill development, content update, materials development. Typically, all-day concentrated time format. Requirements usually met within format. May be repeated on approval.

**EDSE 421. Young Handicapped Child in Early Childhood Classroom (3)** I, II. Knowledge and skills essential to functioning of general education teacher to mainstreamed early childhood classroom. C/F hrs.: 10.

**EDSE 431. Education of Exceptional Children (3)** I, II. Problems of exceptional school children, mentally retarded, learning/behavior disorders, speech/hearing handicapped, visually handicapped, gifted; etiology, diagnosis, personal-social problems, and prognosis. C/F hrs.: 11.

**EDSE 432. Principles and Purposes of Special Education (2)** I, II. Functions of public school and governmental agencies in providing educational services for exceptional children.

**EDSE 433. Education of Mentally Retarded Children (2)** I, II. Understanding and teaching educable and trainable mentally retarded children: etiology, diagnosis, theory, educational procedures. C/F hrs.: 20.

**EDSE 437. Occupational Orientation and Job Preparation for Educable Mentally Retarded Children (3)** I, II. Responsibilities of special class teacher for developing employable skills. Prerequisites: EDSE 431, EDSE 433, and EDSE 451. C/F hrs.: 25.

**EDSE 438. Problems in Evaluating, Selecting, and Adapting Specialized Instructional Materials for Exceptional Pupils (3)** I, II. Analysis, comparison and use of materials with pupils of specified exceptionality in terms of educational and administrative merit. Prerequisites: EDSE 431, EDSE 451, or consent of department.

**EDSE 440. Curriculum Development and Methodology for Teaching Trainable Mentally Retarded Children (3)** I, II. Materials and techniques emphasizing development and appropriate skills with practical applications. Prerequisites: EDSE 431, EDSE 451, EDSE 433, or consent of instructor. C/F hrs.: 25.

**EDSE 441. Education of the Gifted and Talented Child (3)** I, II. Nature and needs of gifted/talented, identification techniques, curriculum planning and development; teaching strategies and techniques, resources and materials available to teachers, program evaluation for gifted/talented. C/F hrs.: 10.

**EDSE 442. Applied Classroom Management with Exceptional Children (3)** I, II. Arrangement of environments for handicapped individuals which facilitate learning, recording, analyzing behavior. Reinforcement schedules and criteria for selection; application of therapy and communicating management programs to parents. Prerequisites: EDSE 431 and EDSE 433. C/F hrs.: 15.

**EDSE 443. Practicum with Exceptional Children (1)** I, II. Individual participation, and supervised practicum experiences. May be repeated to nine hours. Prerequisite: consent of instructor. Should be taken on S/U basis. C/F hrs.: 44.

**EDSE 445. Sheltered Workshop-Function and Relationship to Special Education (2)** I, II. Sheltered workshops in rehabilitation of mentally retarded. Techniques for job analysis, analyzing skills, specific jobs and job areas. Prerequisites: EDSE 431, EDSE 433, EDSE 451. C/F hrs.: 25.

**EDSE 447. Clinical Approaches to Instruction and Language Arts for the Mildly and Moderately Handicapped Student (3)** I, II. Methods, procedures utilized in providing clinical approach to individualization of instruction and methods, materials in reading, spelling, oral and written communication for the mildly and moderately handicapped. Prerequisites: EDSE 443, 453, 456, 457 or consent of department. C/F hrs.: 14.

**EDSE 448. Clinical Approaches to Instruction and Mathematics, Science, and Social Studies for the Mildly and Moderately Handicapped Student (3)** I, II. Accommodation and adaptation of curriculum methods and materials for instruction of mathematics, science, and social studies, with application to a life skills curriculum for the mildly and moderately handicapped student. Prerequisites: EDSE 442, 453, 456, 457, or consent of department. C/F hrs.: 14.

**EDSE 451. Educational Understanding of Children with Learning and/or Behavior Disorders (3)** I, II. Multiple origins and educational significance of specific learning disabilities and/or behavior disorders. C/F hrs.: 15.

**EDSE 453. Educational Evaluation of Children with Learning Disabilities and/or Behavior Disorders (3)** I, II. Identification and analysis of specific learning disabilities as direct or contributing factors in educational and behavioral failures of otherwise educationally competent children. Prerequisites: EDSE 431, EDSE 451, or consent of department. C/F hrs.: 15.

**EDSE 456. Educational Neuropsychology of the Exceptional Child (3)** I, II. Theories and research related to the function and development of the brain as related to language, speech, reading, writing, spelling, mathematics. Major attention given to brain-dysfunction assessment, instructional approaches. Prerequisites: EDSE 431, EDSE 433, EDSE 451. C/F hrs.: 10.

**EDSE 457. Parent Education and Interaction** (3) I, II. Approaches for educators in communicating with parents of handicapped children. Counseling parents and families; understanding legislated rights of the handicapped child and the role of educators/parents in instruction. Prerequisites: EDSE 431, 433. C/F hrs.: 8.

**EDSE 461. Survey Course of the Hearing Impaired** (3) I. History, philosophy, psychology, and education of the hearing impaired. Definitions of terms, structure of the ear, causes of deafness, types of hearing impairments, classification of hearing impairments, educational needs. Prerequisites: EDSE 431, EDSE 451, and PSYC 324. C/F hrs.: 15.

**EDSE 462. Beginning Methods of Instruction of the Hearing Impaired** (3) I. Observational through public schools; review of commercial textbooks (K-HS). Developing lesson plans, unit plans, IEPs plus techniques of teaching supplemented by audio-visual workshops and demonstrations. Prerequisites: EDSE 431, 451, PSYC 324. C/F hrs.: 15.

**EDSE 463. Advanced Methods of Instruction for the Hearing Impaired** (3) II. This course stresses a mini-practicum experience in the public school program. A block period of four hours, three times per week. Stress on lesson plans, unit planning, development of materials and demonstration of teaching. Prerequisites: EDSE 431, 451, 461, 462, 464, CDIS 434, PSYC 324. C/F hrs.: 25.

**EDSE 464. Basic Language Instruction for the Hearing Impaired** (3) I. Students will observe and evaluate language; develop a language picture file; know how to analyze language through a hierarchy of language development. Compare normal language with hearing impaired language. Approaches to teaching both receptive and expressive language. Prerequisites: EDSE 431, 451, and PSYC 324. C/F hrs.: 15.

**EDSE 465. Advanced Language Instruction for the Hearing Impaired** (3) II. Teaching structured language – Fitzgerald Key; teaching language patterns; developing spontaneous language, language charts, stories through oral/written form. Students will analyze and compare language samples of hearing impaired children. Prerequisites: EDSE 431, 451, 461, 464, CDIS 434, PSYC 324. C/F hrs.: 15.

**EDSE 470. Education of Multi-Handicapped Children** (3) I, II. Educational dynamics, strategies, logistics, and responsibilities involved in socialization and education of multi-handicapped children. Prerequisites: EDSE 431, EDSE 433, EDSE 451. C/F hrs.: 15.

**EDSE 490. Problems in Education** (3) On demand. For advanced students wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisites: consent of the department.

**EDSE 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

**EDSE 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

## Education Curriculum and Instruction (EDCI)

**EDCI 100. Developmental Reading: Comprehension, Vocabulary, and Study Skills** (2) I, II, summer. Designed to improve study habits and basic skills of vocabulary and comprehension; efficient notetaking, time management, test-taking and critical thinking. Clinic/lab required: 15 hrs. Lab fee: \$5.

**EDCI 101. Speed Reading** (2) II, summer. Designed to improve study-type reading speed; leisure reading speed; adjusting reading speeds to purposes, material difficulty, and background experience of reader. (Minimum score of 260 words per minute with 60th percentile comprehension on reading speed test is necessary to receive "C" in course.) Prerequisite: departmental testing or successful completion of EDCI 100. Clinic/lab required: 15 hrs. Lab fee: \$10.

**EDCI 202. Exploring the Profession** (2) I, II. Supervised experience in schools with seminar sessions on campus. Students spend one-half day per week for five weeks in each of two school settings working as teacher participants; possible participation in elementary and secondary settings. One class hour per week held as seminar on campus analyzing teacher roles with introduction to study of education and observation of classrooms in settings such as urban, suburban, and rural, through viewing videotapes made in area schools. C/F: 57.

**EDCI 221. Early Childhood Education Competency Development I** (2) I. Analysis of identified performance competencies for professionals who work with young children. Creating safe and healthy learning environment for infants and toddlers that helps build child's self-concept. One one-hour seminar weekly plus clinical/field: 30 hrs.

**EDCI 321. Early Childhood Education Competency Development** (2) II. Analysis of identified performance competencies for professionals who work with young children. Carrying out supplementary responsibilities related to children's program, applying child management techniques and beginning to initiate activities that advance preschool child's self-concept as well as physical and intellectual competence. One one-hour seminar weekly plus C/F: 30 hrs. Prerequisite: EDCI 221.

**EDCI 350. Classroom Application of Methodology** (2) I, II. General teaching methods applied to specific content areas, classroom management, management and organization techniques, working with parents, evaluation of children and self, and lesson and unit plans. Classroom teaching will be supervised and evaluated by the University instructor. MEP only. Prerequisites: MATH 241 and 242, EDFI 302, EDCI/EDFI 202.

**EDCI 351. Social Studies in the Elementary School** (3) I, II, summer. The teaching of social studies in K-6. Objectives, content, learning experiences, instructional resources, evaluation of teaching, learning in the classroom. Must obtain a minimum grade of C prior to student teaching. Clinical and field experiences in the teaching of social studies with children. Prerequisite: EDFI 302.

**EDCI 352. Mathematics Methods for the Elementary School** (3) I, II, summer. Teaching contemporary mathematics in grades K-6. Objectives, curriculum, materials of instruction, methods of teaching and evaluation. Minimum grade of C required prior to student teaching. Prerequisites: EDFI 302 and MATH 241, 242,\* or their equivalent, 243 prior to EDCI 352. C/F hrs: 30. \*Under exceptional circumstances, and only with the permission of the math education faculty, MATH 242 may be taken concurrently with EDCI 352.

**EDCI 353. Science in Elementary Schools** (3) I, II, summer. Teaching of science in grades K-6. Objectives, curriculum, materials of instruction, methods of teaching, and evaluation. Must obtain a minimum grade of C prior to student teaching. Prerequisite: EDFI 302. C/F hrs: 30.

**EDCI 355. The Teaching of Reading in the Elementary School** (3) I, II, summer. The basic theory of developmental reading including teaching procedures, setting objectives, designing curriculum, utilizing instructional materials and evaluation. Prerequisite: EDFI 302. Must obtain a minimum grade of C prior to student teaching. C/F hrs: 30.

**EDCI 356. Language Arts in the Elementary School** (3) I, II, summer. Teaching the language arts; emphasis on language acquisition, developmental procedures in guiding growth in oral and written expression, listening, literature, and handwriting. Minimum grade of C required. Prerequisite: EDCI 302; ENG 291 highly recommended. C/F hrs: 30.

**EDCI 357. Kindergarten-Primary Curriculum and Methods** (3) I, II, summer. Objectives, curriculum, instructional and resource materials, methods. Laboratory experience in kindergarten-primary education. Should precede semester of student teaching. Prerequisite: EDFI 302 or EDFI 342. C/F hrs: 30.

**EDCI 359. Individualization of Reading Instruction in Classroom** (3) I, II, summer. Use of diagnostic measures and materials to aid teacher in developing individual student's learning and reading capabilities. Behavioral objectives, organization of classroom, sequencing skills, developing own materials and diagnostic teaching. Prerequisite: EDCI 355 or consent of instructor. C/F hrs: 25.

**EDCI 360. Content Reading for Specialized Subject Areas** (2) I, II, summer. Designed for preservice teachers seeking certification in specific subject areas at elementary and/or secondary levels. Participants become acquainted with reading needs of students in content area class. Prerequisites: early field experience and EDFI 302. C/F hrs: 30.

**EDCI 370. General Teaching Methods in Secondary Schools** (2) I, II, summer. General processes and issues that form the basis of instruction in all content areas; development of strategies and teacher behaviors associated with effective instruction; critical elements of planning, implementing, evaluating instruction, application of those elements in clinical/field setting. Prerequisites: EDCI 202 or EDFI 202 and EDFI 302. C/F hrs: 35.

**EDCI 371. English in Secondary Schools** (3) I, II. Philosophies of, experiences in, and methods for teaching of English in secondary schools. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

**EDCI 372. Speech in Secondary Schools** (3) I. Principles, objectives, instructional and resource materials, and methods for teaching of speech in secondary schools. Field experience required. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

**EDCI 373. Foreign Language Education in the Schools** (3) I. Principles of second language learning; theory and practice of K-12 curriculum, development of fundamental skills and abilities in teaching listening, speaking, reading, writing in foreign language; techniques of instruction planning; concepts of teaching culture. Prerequisites: EDCI 302 and junior standing. C/F hrs: 30.

**EDCI 374. Mathematics in Secondary Schools** (3) I, II. Principles, objectives, curriculum, materials, and methods of teaching mathematics in secondary schools. Observation and participation in local secondary schools. Two lectures and three laboratories. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

**EDCI 375. Science in Secondary Schools** (3) I, II. Principles, objectives, curriculum, instructional and resource materials, and methods of teaching science in secondary schools. Two lectures and three laboratories. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

**EDCI 376. Social Studies in Secondary Schools** (3) I, II. Principles, objectives, curriculum, instructional and resource materials, and methods of teaching social studies in secondary schools. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

**EDCI 378. Journalism Methods for High School Teachers** (3) II. Principles, objectives, curriculum, materials, methods of teaching mass media in secondary schools. Observations and participations in area schools. Prerequisites: EDFI 302 and junior or senior standing. C/F hrs: 40.

**EDCI 383. Teaching Foreign Language Skills, K-12** (3) II. Advanced-level skills and abilities in teaching listening, speaking, reading and writing in foreign languages as applied to the K-12 curriculum, classroom management, testing and evaluation, individualized instruction, and culture. If taken for graduate credit, a research paper is required. Prerequisite: EDCI 373. C/F hrs: 30.

**EDCI 395. Workshop on Current Topics** (1-3) On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

**EDCI G420. Developmental Reading in the Content Area** (3) I, II, summer. Orients the teacher to the developmental reading process as it applies to the various subject matter areas, including diagnosis and prescription, vocabulary, word analysis, comprehension, and study skills. Prerequisite: EDFI 302, content methods course or consent of instructor.

**EDCI 423. Investigations in the Teaching of Mathematics** (3) I, II, summer. Research in mathematics education as it affects elementary schools. Curricular trends reflecting basic mathematical skills appropriate for elementary schools. Examination and analysis of materials for teaching mathematics. Must obtain a minimum grade of C prior to student teaching. Prerequisite: EDCI 352. C/F hrs: 30.

**EDCI 424. Investigations in Teaching of Elementary Social Studies** (3) On demand. Seminars in the teaching of social studies. In-depth study of values education, the interdisciplinary approach, problem solving techniques, and the role of social studies in controversial issues. Each can be taken alone but recommended that 3 of the 4 be completed. Prerequisite: EDCI 351.

**EDCI 425. Investigations in the Teaching of Language Arts** (3) On demand. Investigation of language arts in the elementary school, the nature and interrelationships of the various components, objectives for teaching, and development and evaluation of language learnings, materials, and methodology. Prerequisite: EDCI 356.

**EDCI 426. Investigations in the Teaching of Elementary Science** (3) On demand. Analysis of the science concepts and principles which are developed; nature of materials and methodology and designs of evaluation procedures. Prerequisite: EDCI 353 recommended

**EDCI G471. Directing Speech Activities in High School** (3) Summer. Administration of secondary cocurricular speech programs in forensic events, mass media, and theatre. Prerequisite: B.S. in speech education or EDCI 372, IPCO 204, THEA 241, 243 and 341.

**EDCI 490. Problems in Education** (1-3). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department. C/F hrs: 20.

**EDCI 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

**EDCI 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

## Educational Administration and Supervision (EDAS)

**EDAS 395. Workshop on Current Topics in EDAS** (1-3) I, II, summer. On demand. Study, readings, activities, projects, development of materials related to needs of EDAS undergraduate. Topics vary semester to semester. May be considered for professional growth. Graded S/U.

**EDAS 409. Organization and Administration of Education in American Society** (3) I, II, III, Local, state, and federal involvement in American education as related to society. Teacher interrelationships; classroom management, school finance, legal issues, job placement and professional relations, teacher evaluation, school-community relations, current educational issues and politics of education as related to societal control. Prerequisites: EDFI 302 and junior status. C/F hrs: 20.

**EDAS 413. Administration of School Discipline and Student Behavior Problems** (3) I, II, III. On demand. Student behavior problems and school discipline in educational setting; methods for analyzing problem behavior; comprehensive positive process approach to dealing with student behavior problems and school discipline.

**EDAS 460. Workshop in Teacher's Role in Staff Problems** (1) On demand. Acquaints teachers in preparation and beginning teachers with staff problems in public schools; teacher's role related to other teachers, supervisors and administrators.

**EDAS 490. Problems in Education** (1-3). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department.

**EDAS 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

**EDAS 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

**EDAS 498. Workshop in Community Relations** (3) On demand. Available teaching resources in the community and how they can be utilized efficiently in teaching; production of teaching units, resource files, other materials which effectively implement use of community resources.

## Educational Foundations and Inquiry (EDFI)

**EDFI 202. Exploring the Profession** (2) I, II. Supervised experience in schools with seminar sessions on campus. Students spend one-half day per week for five weeks in each of two school settings working as teacher participants; possible participation in elementary and secondary setting. One class hour per week held as seminar on campus analyzing teacher roles with introduction to study of education and observation of classrooms in settings such as urban, suburban and rural, through viewing video-tapes made in area schools. Cross-listed in EDCI. C/F hrs: 57.

**EDFI 302. Educational Psychology** (3) I, II, summer. Theory and research on learning, development, personality, and motivation applied to educational processes in various learning environments. Some field or clinical work. Prerequisites: PSYC 201 and sophomore status. C/F hrs: 20.

**EDFI 342. Psychology of Childhood** (3) I, II, summer. Behavior and development of children through elementary school age. Prerequisite: PSYC 201. EDFI 302 recommended.

**EDFI 395. Workshop on Current Topics** (1-3) On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format used. Requirements usually met within time format. May be repeated on approval of adviser.



**EDFI 402. Assessment and Evaluation in Education** (3) I, II, summer. Assessment and evaluation applied to instructional procedures; construction of assessment tools; interpretations of assessment results. Prerequisites: EDFI 302 and one methods course. C/F hrs: 20.

**EDFI 408. Education in a Pluralistic Society** (2) I, II, summer. Ideas and assumptions in education. Development of dynamic and personal philosophy of education. Prerequisites: EDFI 302 and junior standing. C/F hrs: 10.

**EDFI 411. Teachers' Role in Guidance** (3) On demand. Human relations and classroom management practices which teachers may use to meet affective and cognitive learning needs of students; practical application counseling and guidance techniques and strategies which encourage positive classroom climate. Prerequisite: senior standing.

**EDFI 412. Education of Disadvantaged** (2) II. Effects of socioeconomic deprivation on educational performance; teaching techniques appropriate to needs and characteristics of disadvantaged student. Prerequisites: education methods and EDFI 302.

**EDFI 415. Spaceship Earth Seminar** (3) I. Integrating, synthesizing, environmental education seminar for upperclass and graduate students. Using inquiry approach, participants consider relationships of humankind with total environment.

**EDFI 416. Philosophy of Environmental Education** (3) II. Concepts and processes of environmental education including theories such as Toledo model, Strand approach, Environmental Studies Project, Boulder, and other representative model.

**EDFI 417. Urban Education** (2) On demand. Research, methods, and concepts from sociology and psychology discussed as basis for critically analyzing current educational practices, programs, and policies of urban schools. Resource people used. Library and field research required. Prerequisite: commitment to, or at least serious interest in, urban education.

**EDFI 429. Assessment of Young and Atypical Children** (3) I, II. Concepts and principles of measurement and instruments used in assessing young and atypical children; integration of measurement and instruction. Prerequisite: EDFI 302. C/F hrs: 20.

**EDFI 460. Sex Role Stereotyping and Sex Discrimination in Education** (2) On demand. Education as influential institution and process in society in terms of sexism in educational materials, curriculum, structure; federal, state, local policy responses to this concern; consideration and development of other policies for action regarding sex equity in education.

**EDFI 481. Leadership Training in Behavior Analysis Program** (1-5) On demand. Prepares individuals to function as group leaders in academic, year-long, in-service behavior analysis program. Prerequisite: permission of instructor and enrollment in behavior analysis program.

**EDFI 482. Direct Study of the Child** (1-5) On demand. Part of behavior analysis program. A child studied using predetermined framework.

**EDFI 490. Problems in Education** (1-3). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to 6 hours; undergraduate credit only. Prerequisite: permission of instructor.

**EDFI 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

**EDFI 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

## Electronic Technology (ET)

(See technology)

## English (ENG)

**ENG 100. English as Foreign Language** (4) I, II. For student whose native language is not English. Development of skills in listening, speaking, reading, and writing standard American English. Placement on basis of proficiency tests. Though it may be necessary for student to repeat course, only four hours of credit counted toward graduation. Graded S/U.

◆ **ENG 110. Developmental Writing** (5) I. Development of skills in sentence structure, edited American English usage, mechanics, paragraph construction; basic expository writing; emphasis on organizing and developing coherent essay of approximately 500 words for college-educated audience. Placement through departmental pretesting. Student must complete course and departmental proficiency examination successfully to receive S and to be eligible to enroll in ENG 112; students who receive No Record must enroll in ENG 111. No more than 6 hours from ENG 110, ENG 111, and ENG 112 may be applied toward graduation. Graded S/No Record.

◆ **ENG 111. Introductory Writing** (3) I, II. Basic expository writing; emphasis on organizing and developing coherent essay of approximately 500 words for college-educated audience. Placement through departmental pretesting or unsuccessful completion of ENG 110. Students must complete course and departmental proficiency examination successfully to receive S. No more than 6 hours from ENG 110, ENG 111, and ENG 112 may be applied toward graduation. Graded S/No Record.

◆ **ENG 112. Varieties of Writing** (3) I, II. Expository writing including research paper; emphasis on analytical writing based on critical reading. Placement through departmental pretesting or successful completion of ENG 110 or ENG 111. Student must complete course and departmental proficiency examination successfully to receive passing grade. Graded A, B, C/No Record.

◆ **ENG 150. Response to Literature** (3) I, II. Response to themes in poetry, drama, fiction, nonfiction and other literary types. Not accepted toward English major or minor.

◆ **ENG 200. Introduction to Literature: (sub-title)** (2-3) I, II. Basic literary concepts; works organized on single topics such as black literature, fantasy, science fiction, literature and film. Some topics for 2 credit hours; some for 3. Can be repeated once for credit if topics differ. Not accepted toward English major or minor.

**ENG 201. Literature and Writing** (4) I, II. Literary interpretation and criticism of poems, short stories, novels and plays. Study of the literary elements and forms of composition about literature. Extensive expository writing. Prerequisite: ENG 112.

◆ **ENG 205. Craft of Poetry** (2) I. Traditional and contemporary poetry; emphasis on way poetry is made. Required for majors and minors in B.F.A. creative writing program. Prerequisite: any ENG literature course or ENG 112.

◆ **ENG 206. Craft of Fiction** (2) II. The way fiction works, impulses creating it, how it turns out. Emphasis on style and form in traditional and contemporary fiction as way of understanding meaning. Required for majors and minors in B.F.A. creative writing program. Prerequisite: any ENG literature course or ENG 112.

◆ **ENG 207. Intermediate Writing** (3) I, II. Primarily exposition. Prerequisite: ENG 112.

◆ **ENG 208. Creative Writing** (3) I, II. Principles of poetic composition and fiction writing. Analysis of contemporary models and practice in original composition.

◆ **ENG 209. Creative Writing Workshop** (3) I, II. Supervised writing in poetry and fiction; group discussions; concentration on shorter forms. May be repeated once. Prerequisite: "B" or better in ENG 208.

◆ **ENG 251. Writing About Films** (3) II. Same amount of writing as in ENG 207; deals entirely with film theory, films, film scripts, novels on which films are based, and film reviews. Equivalent of ENG 207. Prerequisite: ENG 112.

**ENG 261. World Literature** (3) I. Masterpieces of world literature to 1400, including such authors as Homer, Confucius, Aeschylus, Sophocles, Plato, Aristophanes, Virgil, and Dante. Prerequisite: any ENG literature course or ENG 112.

◆ **ENG 262. World Literature** (3) I, II. Masterpieces of world literature since 1400, including such authors as Montaigne, Cervantes, Goethe, Hugo, Balzac, Dostoevski, and Kafka. Prerequisite: any ENG literature course or ENG 112.

**ENG 264. English Literature Survey to 1700** (3) I. Major authors in the context of major literary traditions from Anglo Saxon times through the Restoration; introduces historical approach to the study of literature. Prerequisite: any ENG literature course or ENG 112.

**ENG 265. English Literature Survey, 1700-1900** (3) II. Major authors in the context of major literary traditions from the eighteenth century through the Victorian Age; introduces historical approach to the study of literature. Prerequisite: any ENG literature course or ENG 112.

**ENG 266. American Literature Survey to the Civil War** (3) I. Roots of American literary traditions and growth of national independence of expression: religious, political, philosophical sources of American imagination based on texts of representative writers including Edwards, Paine, Irving, Cooper, Poe, Bryant, Emerson, Thoreau, Hawthorne, Whitman, Melville. Prerequisite: any ENG literature course or ENG 112.



- ◆ **ENG 267. American Literature Survey, Civil War to World War I** (3) I, II. Literary patterns of idealism, skepticism, and emergent materialism based on texts of representative writers such as Dickinson, Twain, James, Howells, Wharton, and Norris; literary movements such as local-colorism, realism, and naturalism. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 272. Literature of Minorities** (3) I. Minority literary expression: aims, methods and accomplishments. Prerequisite: any ENG literature course or ENG 112.
- ENG 290. Language Study** (3) Alternate years. Aspects of form and style in language: structure, usage, semantics; language change and cultural convention; social and regional dialects. Prerequisite: sophomore standing. Not applicable for state certification requirements.
- ENG 291. Language Study for Elementary Teachers** (3) On demand. Structure of English; emphasis on linguistic basis of reading, spelling, and other language arts concerns. Prerequisite: ENG 112.
- ENG 300. Themes in Literature** (3) On demand. Literary treatment of single theme, such as hero and heroine in literature, youth and age, love and death, innocence and experience, war and peace, wealth and poverty, etc. Prerequisite: any 100- or 200-level literature course or consent of instructor. May be repeated once if themes differ.
- ENG 301. Shakespeare** (3) I, II. Representative comedies, history plays, tragedies and tragicomedies, and sonnets. Designed for student with no previous Shakespeare courses. Prerequisite: any ENG literature course or ENG 112.
- ENG 306. Bible** (3) I. English Bible as literary classic; its development and influence on literary culture. Prerequisite: any 100- or 200-level literature course.
- ◆ **ENG 307. Great Books** (3) On demand. Books not usually studied in other courses; organized according to topic such as love, war, or death, or according to genre such as fantasy, science fiction, or romance, or according to works of one or two writers such as Tolkien. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 308. Creative Writing** (3) I, II. Imaginative writing, fiction and poetry. Class discussion and individual conferences. Prerequisite: "B" or better in ENG 209 or approval of instructor. May be repeated once.
- ◆ **ENG 320. Modern Poetry** (3) I. English and American poetry and European poetry in translation from 1900 to 1945; writers and works significantly influencing development of poetic forms. Prerequisite: any ENG literature course or ENG 112.
- ENG 322. 19th Century American Fiction** (3) I. Short stories and novels. Includes Poe, Hawthorne, Melville, Twain, James and Crane; minor writers including regional humorists. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 323. Modern Fiction** (3) I, II. Emphasis on the novel; American and English works as well as works in translation from 1900 to 1945; works which represent development of forms of fiction. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 325. Modern Drama** (3) I. Great plays by Ibsen, Chekhov, Shaw, O'Neill, and others; dramatist's insights into human condition. Prerequisite: any ENG literature course or ENG 112.
- ENG 330. Contemporary Poetry** (3) II. Cross section of English and American poetry and European poetry in translation, mostly written since 1945; writers and works representing major trends in development of poetry. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 333. Contemporary Fiction** (3) II. Cross section of American and English fiction and European fiction in translation, mostly written since 1945; works representing major trends in development of fiction. Prerequisite: any ENG literature course or ENG 112.
- ENG 335. Contemporary Drama** (3) II. Plays since 1945 by American, British and European dramatists (in translation); new techniques, thematic trends, and aspect of human condition revealed through plays. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 342. Children's Literature** (3) I, II. Reading and evaluation of books for children from nursery school through junior high school; novels, folklore, informational literature, poetry, and bibliographical sources. Not open to student with credit for L&EM 342. Prerequisite: any ENG literature course or ENG 112.
- ENG 343. Literature for Adolescents** (3) I, II. Reading and evaluation of books for junior and senior high school students; emphasis on fiction; also biography and other nonfiction, folklore, myth, poetry. Prerequisite: any ENG literature course or ENG 112.
- ENG 380. Introductory English Linguistics** (4) I, II. Structure of English through recent linguistic theories and related topics such as dialects, usage, dictionaries. Prerequisite: sophomore standing.
- ENG 381. Grammar and Writing** (3) I, II. Application of grammatical models (traditional, structural, and transformational) to the teaching of writing. Prerequisite: ENG 380.
- ENG 385. Studies in Literature-Film** (3) On demand. Problems in film's relationship to literature; definitions and theory; specific films and literary works. May focus on author, genre, or historical period. May be repeated once if topics differ. Prerequisite: any ENG literature course or ENG 112.
- ENG 400. Chaucer** (3) I. The Canterbury Tales, Troilus and Criseyde, and such dream-vision poems as The Book of the Duchess and lyrics, in Middle English. Prerequisite: any ENG literature course or ENG 112.
- ENG 401. Shakespeare II** (3) Alternate years. Shakespeare's dramatic technique in tragedy, comedy, or history play. Prerequisite: ENG 301.
- ENG 402. English Medieval Literature** (3) Alternate years. Poetry, prose, and drama including such works as Beowulf (selection), Pearl, The Wakefield Plays, and The Prick of Conscience read in Old and Middle English or in translation. Prerequisite: any ENG literature course or ENG 112.
- ENG 403. 16th Century English Poetry and Prose** (3) Alternate years. Renaissance literature, including great sonnets, early novels, Spenser's Arthurian epic, Skelton's satires and Marlowe's erotic love poetry. Prerequisite: any ENG literature course or ENG 112.
- ENG 404. 17th Century Writers** (3) Alternate years. Poetry and prose from 1600 to 1660; Donne, Jonson, Herrick, Herbert, Vaughan and Marvell, Bacon, Browne, Hobbes, and Bunyan. Prerequisite: any ENG literature course or ENG 112.
- ENG 406. English Renaissance Drama** (3) Alternate years. English drama (except Shakespeare) before 1642; including Marlowe, Jonson, and Webster; reading in antecedent forms and traditions. Prerequisite: any ENG literature course or ENG 112.
- ENG 407. Writer's Workshop** (3) I, II. Analysis of contemporary creative writing models, and original composition, emphasis on fiction and poetry. Creative writing majors repeating course required to do special project. Prerequisite: "B" or better in ENG 308 or approval of instructor. May be repeated once.
- ENG 408. Milton** (3) Alternate years. Paradise Lost, Paradise Regained, and Samson Agonistes and selected minor poems and prose. Prerequisite: any ENG literature course or ENG 112.
- ENG 410. English Restoration and 18th Century Drama** (3) Alternate years. Restoration features heroic drama, pathetic tragedy, and libertine comedy; 18th century sentimentality and laughing comedy. Stage and theatre design, historical and social background. Prerequisite: any ENG literature course or ENG 112.
- ENG 411. 18th Century Writers** (3) Alternate years. Prose and poetry from Restoration, Augustan, and Johnsonian periods; neoclassical and preromantic writers; Dryden, Swift, Pope, Johnson, Boswell. Prerequisite: any ENG literature course or ENG 112.
- ENG 415. English Novel: Defoe to Austen** (3) Alternate years. Defoe, Richardson, Fielding, Smollett, Sterne, Austen, and contemporaries. Prerequisite: any ENG literature course or ENG 112.
- ENG 416. English Novel of 19th Century** (3) Alternate years. Bronte, Dickens, Hardy and other novelists of Victorian England. Beginnings of modern society, its problems and possibilities, and development of novel as a unique modern form. Prerequisite: any ENG literature course or ENG 112.
- ENG 417. Romantic Writers** (3) Alternate years. English poetry and prose from 1789-1832; Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. Prerequisite: any ENG literature course or ENG 112.
- ENG 418. Victorian Writers** (3) Alternate years. Prose and poetry of Carlyle, Mill, Tennyson, Browning, Arnold, the Pre-Raphaelite poets and successors. Prerequisite: any ENG literature course or ENG 112.
- ENG 419. Modern British Writers** (3) Alternate years. British writers from 1900 to 1945: Joyce, Lawrence, Conrad, Forster, Woolf, Yeats, O'Casey, Shaw, Auden. Prerequisite: any ENG literature course or ENG 112.
- ENG 420. Modern American Writers** (3) II. Major American writers from 1900 to 1945: Eliot, Pound, Stein, Frost, Stevens, O'Neill, Hemingway, Fitzgerald, Faulkner. Prerequisite: any ENG literature course or ENG 112.
- ENG 423. Women's Studies in Literature** (3) I. Topics such as women poets or women novelists, depiction of women in works by men, feminist criticism; primarily British and American writers. May be repeated once if topics differ. Prerequisite: any ENG literature course or ENG 112.
- ENG 430. American Transcendentalism** (3) Alternate years. Major writers of Transcendentalist movement and social and philosophical background of their time; Emerson and Thoreau. Prerequisite: any ENG literature course or ENG 112.

**ENG 435. Hawthorne and Melville** (3) Alternate years. Major works of Hawthorne and Melville and background of the age. Prerequisite: any ENG literature course or ENG 112.

**ENG 442. Studies in Children's Literature** (3) Alternate years. Problems in children's literature; history, criticism, trends, individual authors, types. Not open to student with credit for L&EM 442. Prerequisite: ENG 342 or permission of instructor.

**ENG 456. Critical Writing** (3) Alternate years. Writing from various critical perspectives such as biographical, textual, psychological, mythical, analytical. Prerequisite: any ENG literature course or ENG 112.

**ENG 470. Tutorial in Language and Literature** (1-4) I, II. For advanced student or small group of students to work independently in specialized subject not covered by existing courses. Prerequisite: junior standing; six hours of ENG beyond 112; written description of the proposal prepared by student and, signed by proposed tutor, to be submitted to undergraduate curriculum committee in English prior to end of preceding semester.

**ENG 480. Studies in English or American Literature** (3) Intensive study of author, literary school, genre, or theme. May be repeated once if topics are different. Prerequisite: any ENG literature course or ENG 112.

**ENG 481. Advanced English Linguistics** (3) Alternate years: Intensive study of topic in English linguistics. Topics announced in advance and vary from section to section and quarter to quarter. May be repeated if topics clearly different. Prerequisite: ENG 380.

**ENG 482. History of English Language** (3) Alternate years. Changes in sounds, grammar, usage, and meaning from Old English to present. Prerequisite or corequisite: ENG 380.

**ENG 483. Advanced Writing** (3) I. Expressive writing; composing process and techniques for stimulating and evaluating writing in secondary school. For prospective teachers and anyone interested in craft of writing or creative process. Prerequisite: EDCI 371 or consent of instructor.

**ENG 485. Writing Film Criticism** (3) On demand. Principles and assumptions underlying approaches to film criticism as revealed in commentaries and critiques; application of these principles to writing film criticism. Prerequisite: ENG 201 or ENG 207 or ENG 208 or ENG 251, or permission of instructor.

**ENG 488. Technical Writing** (3) I, II. Professional course designed for practical application in business, industry, and sciences. May be repeated once for credit. Prerequisite: senior standing or approval of instructor.

**ENG 489. Internship in Technical Writing** (1-9) I, II, summer. Full-time technical writing internship for 15 weeks in industrial publications office under supervision of professional publications director. Available only for students with exceptional skill in technical writing, with approval and recommendation of technical writing staff. Prerequisites: ENG 488 and approval of technical writing staff. Graded S/U.

**ENG 495. Honors Reading** (3). For superior major or minor who wants to pursue common studies determined by interests of group looking toward granting of honors in English. Prerequisite: consent of instructor.

## Environmental Health (ENVH)

**ENVH 401. Waste Management and Disposal** (2) I. Problems of disposing of wastes generated by various segments of community; sources of material, levels of authority and responsibility, and alternatives for disposal.

**ENVH 402. Air and Noise Pollution in Community** (3) II. Sources and effects of air and noise pollutants; various methods of monitoring, evaluation, and control; elements of development and implementation of control systems.

**ENVH 403. Environmental Considerations in Occupational Health** (3) Summer. Prevention and control of occupational health and safety hazards through improvement of working environment; applicable laws and standards; key concepts in recognition and evaluation of potential hazards.

**ENVH 404. Organization of Public and Environmental Health Services** (3) II. Concepts and philosophy of public health as reflected by national, state, regional, and local programs. Prerequisite: junior status; instructor's permission if not an environmental major or health and community services student.

**ENVH 470. Special Problems in Environmental Health** (1-2) I, II, summer. Student designs and carries out study or special project in area of interest. Prerequisite: program director's permission. May be repeated.

◆ **ENVH 491. Practicum** (1-12) I, II, summer. Experience working under supervision in selected environmental, public health, or health planning agencies or industries with environmental health units; emphasis on practice rather than observation. May be repeated to 12 hours; minimum of six hours required for students in environmental health program. Prerequisites: instructor's permission, at least junior status. Graded S/U.

## Environmental Studies (ENVS)

**ENVS 101. Approaches to Environmental Studies** (2) II. Philosophy and practice of environmental concern; career opportunities, contemporary issues, organizations.

**ENVS 301. Environmental Problems** (3) I. Interdisciplinary approach to selected environmental problems through research and analysis; emphasis on team approach.

**ENVS 401. Environmental Strategies** (2) II. Environmental problem solving through systems approach and citizen participation process.

**ENVS 402. Environmental Impact Statements** (3) II. History and concepts of environmental impact statements; procedures in preparing and reviewing such statements.

## Environmental Health Technology (ENVT)

† **ENVT 121. Environmental Regulation** (2) II. Basic foundations of environmental law; historic precedents, current legislation, environmental impact statements and how to testify in a court of law.

† **ENVT 160. Environmental Sanitation** (2) I. Communicable disease control, individual water and sewage treatment, swimming areas, and solid and liquid waste disposal. One hour of lecture and three hours of laboratory and field study.

† **ENVT 211. Biological and Chemical Examination of Water** (6) II. Quantitative and qualitative analysis of bacteria, algae, common aquatic organisms and chemical composition of water, wastewater, and bottom materials. Four hours of lecture and six hours of laboratory. Prerequisite: one semester of laboratory CHEM or consent of instructor. Lab fee.

† **ENVT 222. Water and Wastewater Treatment** (4) I. Introduction to water supply and treatment and wastewater treatment and disposal. Three hours of lecture and four hours of laboratory and field study. Prerequisites: one semester of laboratory CHEM, PHYS 201 and MATH 127, or consent of instructor. Lab fee.

† **ENVT 223. Wastewater Package Treatment** (1) II. Operator personnel and inspectors of package type extended aeration plants the basic concepts of routine operations, maintenance, process control, and safety. Twenty-eight hours of lecture.

† **ENVT 225. Environmental Health and Protection** (3) II. Basic concepts in ergonomics, noise, vibration, illumination, effects of temperature and radiation uses and protection. Two hours of lecture and four hours of laboratory and field study. Prerequisites: one semester of laboratory CHEM, PHYS 201, and MATH 127, or consent of instructor.

† **ENVT 226. Institutional Health and Sanitation** (2) II. Elementary inspection techniques of marinas, housing, schools, temporary residences, trailer parks, and migrant labor facilities, and food and milk protection. One hour of lecture and three hours of field study. Prerequisites: ENVT 160 and 280, or consent of instructor.

† **ENVT 260. Air Pollution Surveillance and Control** (3) I. Introduction to the fundamentals of industrial toxicology, air pollution, and industrial hygiene surveillance, monitoring, analysis, and control. Two hours of lecture and four hours of laboratory and field study. Prerequisites: One semester of laboratory CHEM, PHYS 201 and MATH 127, or consent of instructor. Lab fee.

† **ENVT 261. Industrial Ventilation** (2) II. Principles of ventilation; includes design and evaluation of general, dilution, and local exhaust ventilation systems. One hour of lecture and three hours of laboratory. Prerequisite: ENVT 260 or consent of instructor.

† **ENVT 270. Occupational Safety and Hygiene** (3) I. Accident prevention and investigation, fire, electrical and laboratory safety, personal protective equipment, biohazard control, and occupational health inspection techniques. Two hours of lecture, four hours of field study.

† **ENVT 272. Hazard Recognition** (2) II. Hazard recognition in the work environment with special emphasis on construction and factory operations. One hour of lecture and three hours of field study.

† **ENVT 280. Food Manager Certification** (1) I. Microbiology, inspection techniques, safety analysis, prevention of food-borne diseases, Ohio food service laws and planning and equipment review. Twenty-eight hours of lecture.

† **ENVT 290. Experimental Studies in the Environment** (1) I, II, summer. Environmental study projects, workshops, seminars and computer simulation classes dealing with air, water, or land resource utilization and planning.

† **ENVT 291. Student Field Experience** (3) I, II, summer. Eleven weeks of field work in environmental health under the supervision of a regulatory agency or a private industrial concern and the director of environmental health at Firelands College. Prerequisite: permission of supervisor.

## Ethnic Studies (ETHN)

**ETHN 101. Introduction to Ethnic Studies** (3) I, II, summer. Key-theoretical concepts in ethnicity; surveys studies and problems of ethnic groups.

**ETHN 110. Introduction to Latinos in the United States** (3) I, II. Latino experience in the United States; cultures, life experiences and the limited political, educational, socio-economical opportunities of this minority.

**ETHN 120. Introduction to Black Studies** (3) I, II, summer. Introduction to the black experience with special emphasis upon but not limited to the cultural experience of the United States.

**ETHN 205. European Ethnic Americans** (2) I, summer. Immigration experience of several European groups in the U.S. and their cultural adaptation thereafter. Specific groups to be studied vary according to faculty and the semester taught.

**ETHN 210. Chicanos in American Society** (3) II, summer. Social culture of Chicanos in the United States; introduces major concepts and themes of Chicano biculturalism and their folk culture.

**ETHN 215. History of the Mexican Americans** (3) I. History of Mexican Americans from the Texas Revolution, Mexican American War, to the present.

**ETHN 220. African Literature** (3) I. Creative and critical writing in the English language by writers of African descent. Also writers from the Caribbean.

**ETHN 300. Topics in Ethnic Studies** (3) I, II, summer. On demand. Experimental courses considered part of regular offering.

**ETHN 304. Ethnicity in America** (3) I, II, summer. Anthropological survey of some of the ethnic and regional groups in America. Discussion of both their traditional and contemporary cultures. Prerequisite: SOC 101 or SOC 231, or lower level ethnic studies course.

**ETHN 308. Origins of Chicano Culture** (2) I, II. Origins of Mexican American culture and its contributions to art and folklore.

**ETHN 312. West African Literature and Nationalism** (3) II. Contributions made by West African writers to the rise of national consciousness in West Africa.

**ETHN 395. Workshop on Current Topics** (1-3) I, II, summer. Comprehensive study of America's ethnicity with special emphasis upon the three ethnic groups in northwestern Ohio: Afro-Americans, Mexican Americans, and Polish Americans. Particular emphasis will be placed upon development of relevant curriculum pertaining to the ethnic groups studied.

**ETHN 410. Contemporary Mexican American Social Thought** (3) II. Development of Mexican philosophical thought as exemplified by Santa Anna, Juárez, Díaz, Zapata, and Cardenas as related to Chicano ideologies, their significant parallels within their contemporary periods and institutions.

**ETHN 415. Novels of Chinua Achebe** (2) II. Study of Chinua Achebe, one of the foremost writers from English-speaking West Africa.

**ETHN 470. Readings in Ethnic Studies** (1-2) I, II, summer. Individual extensive readings in consultation with instructor in fields of special interest. May be repeated. Prerequisite: consent of instructor. May or may not partially fulfill group requirements.

**ETHN 480. Seminar in Ethnic Studies** (3) I, II, summer. Specific content areas offered depends on demand and interest of staff. May be repeated three times. Prerequisite: consent of instructor. May or may not partially fulfill group requirements.

**ETHN 489. Field Study in Ethnic Studies** (2-8) I, II, summer. Placement of students in a variety of agencies or businesses, which are relevant to the study of ethnicity or research/study outside of Bowling Green. Prerequisites: junior standing; 6 hours of upper division ethnic studies courses relevant to the study; and permission of instructor. Graded S/U.

## Finance (FIN)

**FIN 200. Personal Finance** (3) I, II. Primarily for non-business majors. Personal financial management; borrowing sources and costs; auto, property and life insurance; homeowner-ship financing; personal investment strategy, and long-range personal financial planning. Not open to juniors and seniors majoring in business administration.

◆ **FIN 300. Business Finance** (3) I, II, summer. Acquisition and allocation of funds in business enterprise. Fundamentals of financial analysis, working capital management, capital budgeting, financing sources: debt, equity and term financing, valuation. International financial management. Prerequisites: ECON 202 and ACCT 222.

◆ **FIN 330. Principles of Investment** (3) I, II. Investment process related to commitment of funds in securities. Risks and rewards of different investment media. Investment analysis and timing, types of securities, basic portfolio construction and evaluation. Prerequisite: FIN 300 or permission of instructor.

**FIN 342. Real Estate Administration** (3) II, summer. Investment decision making in land resource use, appraisal and investment analysis. Real estate location and markets. Real estate property rights, financing, taxation and valuation. Accepted by Ohio Real Estate Commission as one of two required courses for the licensing exam. Prerequisite: ECON 202 or permission of instructor.

**FIN 360. Financial Institutions** (3) I, II. Institutions which participate in money and capital markets; markets for corporate securities, real estate finance, federal government and agency obligations, and state and local government obligations. Prerequisites: FIN 300 and ECON 311.

**FIN 425. Financial Management in Health Care Services** (3) I. Application of financial management principles; funds flow analysis; forecasting and budgeting; benefit/cost considerations and financial analysis; government subsidy implications for capital budgeting; sources of capital, planning capital structure. Prerequisite: FIN 300.

**FIN 433. Security Analysis** (3) I. Selecting securities for investment objectives. Appraisal of investment risks for specific securities; valuation and suitability for purchase, retention, or sale; appropriateness for stated portfolio objectives. Prerequisite: FIN 330.

**FIN 436. Portfolio Management** (3) II. Additional topics in security analysis. Theory and practice of portfolio construction and review; practical applications in portfolio management. Prerequisite: FIN 433.

**FIN 450. Problems in Financial Administration** (3) I, II. Case method approach to problems in procurement, administration, allocation and control of funds. Prerequisite: FIN 300 (ACCT 322, ACCT 332, or ACCT 837 recommended).

**FIN 461. Bank Management** (3) I, summer. Management principles in banking. Management of funds sources, and their allocation among reserves, loans, and investments and its impact on bank liquidity and profitability. Depositors' services and credit and lending analysis practices. International banking. Prerequisites: FIN 300 and ECON 311.

**FIN 491. Studies in Finance** (1-3): On demand. In-depth study of selected areas. Offered to individual students on lecture, seminar, or independent study basis depending on student needs and nature of material. May be repeated to six hours. Graded S/U.

## French (FREN)

◆ **FREN 101. Elementary French I** (4) I, II. Beginning oral-aural study; attention to grammar. Four class periods and scheduled oral practice each week.

◆ **FREN 102. Elementary French II** (4) I, II, III. FREN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: FREN 101.

**FREN 111. French Cultural Series I** (4) I, II. French culture; development of language awareness for reading comprehension. Discussion in English. No laboratory.

**FREN 112. French Cultural Series II** (4) I, II. French culture; development of language awareness for reading comprehension. Discussion in English. Prerequisite: FREN 101 or FREN 111. No laboratory.

◆ **FREN 201. Intermediate French I** (3) I, II. Three class periods and scheduled oral practice each week. Prerequisite: FREN 102 of two years of French in high school.

◆ **FREN 202. Intermediate French II** (3) I, II. FREN 201 continued. Three class periods and scheduled oral practice each week. Prerequisite: FREN 201 or three years of French in high school.

**FREN 211. French Cultural Series III** (3) I, II. Further development of reading skill. Extensive reading in masterpieces of French literature and related cultural texts. Some reading in English translation. Prerequisite: FREN 102 or FREN 112, or two years of French in high school.

**FREN 212. French Cultural Series IV** (3) I, II. Continuation of FREN 211. Prerequisite: FREN 201 or FREN 211 or three years of French in high school.

**FREN 350. French Connection** (3) I. Bridge between FREN 202 and advanced courses. Intensive grammar review and translation. Required of all majors but may be waived by Department of Romance Languages. Prerequisite: FREN 202.

**FREN 351. French Composition and Conversation I** (3) I. Improvement of oral and written skills; emphasis on composition. Prerequisite: FREN 202.

**FREN 352. French Composition and Conversation II** (3). FREN 351 continued; emphasis on conversation. Prerequisite: FREN 202.

**FREN 353. French Diction** (3) 1982-83 and alternate years. French pronunciation; syllabification, stress, linking, intonation. Prerequisite: FREN 202.

**FREN 355. French Linguistics** (4) I. Sound system and grammatical structures of modern French; practical application. Prerequisite: FREN 202.

**FREN 361. Introduction to French Literature I** (3) 1982-83 and alternate years. Chronological evaluation of outstanding works from Middle Ages through 17th century; various movements and genres. Prerequisite: FREN 202.

**FREN 371. French Civilization I** (4) 1982-83 and alternate years. Political, social, intellectual, artistic life of French people from prehistoric times to Industrial Revolution; background for literary studies and preparation for teaching of French. Prerequisite: FREN 202.

**FREN 372. French Civilization II** (3) 1981-82 and alternate years. FREN 371 continued; political, social, intellectual, artistic life of modern France. Prerequisite: FREN 202.

**FREN 389. Contemporary Touraine** (4) III. Individual research projects culminating in term paper dealing with some aspect of region of Touraine. Prerequisite: FREN 202. Offered only abroad.

**FREN 451. Advanced Composition** (3). Increased facility at written composition through practice in grammatical patterns. Prerequisite: FREN 351.

**FREN 453. Advanced French Diction** (3). Continued study of pronunciation, stress, and intonation. Prerequisite: FREN 353.

**FREN 458. Career French I** (3). Terminology used in commercial operations, economics, international trade; emphasis on business correspondence; some translation. Prerequisite: FREN 351 or FREN 352.

**FREN 459. Career French II** (3). Advanced study of the economic and administrative structures in France and in Francophone areas, with intensive concentration on related technical language. Prerequisite: FREN 458.

**FREN 464. Seventeenth Century French Literature** (4). Baroque and classical French literature. Prerequisite: FREN 361.

**FREN 470. Independent Readings in French** (1-3). Readings for the advanced student who wishes to study a particular author or period, or problem in language or civilization. Prerequisite: consent of department chair and instructor.

**FREN 474. Eighteenth Century French Literature** (4). Literature of the Enlightenment. Prerequisite: FREN 361.

**FREN 484. Nineteenth Century French Literature** (4). Literature of France of the nineteenth century, including Romanticism, Realism and Naturalism. Prerequisite: FREN 361.

**FREN 488. French Literature: Advanced Studies** (3). Intensive study of author, literary school, genre or a selected theme. May be repeated if topics clearly differ. Prerequisite: FREN 361.

**FREN 494. Twentieth Century French Literature** (4). Contemporary French and Francophone novel, theatre and poetry. Prerequisite: FREN 361.

## Geography (GEOG)

◆ **GEOG 121. World Geography: Eurasia and Africa** (2) I, II. Geographical analysis of selected topics in Asia, Africa, and Europe. Ecological aspects of cultural, political, and economic problems. Open only to freshmen and sophomores.

◆ **GEOG 122. World Geography: Americas and Pacific** (2) I, II. Geographical analysis of selected topics in Americas and Pacific world. Ecological aspects of cultural, political, and economic problems. Open only to freshmen and sophomores.

◆ **GEOG 125. Weather and Climate** (3) I, II. Atmospheric elements and controls; earth-sun relationships, weather components; weather prediction, and climatic types and distribution. Two one-hour lectures, one-hour demonstration-discussion.

◆ **GEOG 126. Vegetation and Soils** (3) I. Physical geography; distribution and classification of vegetation and soil representation of earth on maps. Two one-hour lectures, one-hour discussion-demonstration.

◆ **GEOG 127. Land Form Development and Distribution** (2) II. Physical geography; processes of land form development, world-wide distribution of land forms, and U.S. physiographic features and regions.

◆ **GEOG 213. Meteorology** (3) I, II. Physical processes of atmosphere and relationship to daily weather pattern. Two one-hour lectures, one two-hour laboratory.

◆ **GEOG 225. Resource Distribution and Economic Activity** (3) I, II. Ways in which man has developed natural and human resources to meet economic needs; resulting patterns in economic landscape.

◆ **GEOG 230. Cultural Geography** (3) I, II. Geographic influences upon population distribution, religion, dietary patterns, economics, others.

**GEOG 300. Topics in Geography** (3) On demand. Experimental courses considered part of regular offering.

**GEOG 321. Introduction to Map Communication** (3) I. Practical map planning and construction; basic cartographic theory and use of drafting materials and equipment.

**GEOG 322. Thematic Cartography** (2) II. Quantitative and qualitative data; statistical or thematic maps.

**GEOG 323. Research Methods** (3) On demand. Geographic research techniques; quantitative methods of describing and analyzing spatial distributions.

**GEOG 325. Population Geography** (3) II. Spatial analysis of size, distribution, density, migration, age-sex composition, and dynamic factors of change in major world population regions and sub-regions.

**GEOG 326. Community Planning for the Elderly** (3) II. Housing, shopping, and transportation problems of urban and rural elderly; development of programs to meet needs of elderly.

**GEOG 327. Delivery of Social Services: Geographic Perspectives** (3) Alternate years. Delivery of social services to subnational geographic areas; design and monitoring of delivery systems by examining specific social programs and problems, as those related to poverty, crime, health and elderly.

**GEOG 331. Principles of Conservation Ecology** (3) I, II. Principles necessary in considering environmental problems and application to various aspects of conservation; interdisciplinary approach combining social, biological, and physical sciences.

**GEOG 333. Geography of Recreation** (3) I. Spatial aspects of outdoor recreation; assessment of present and future recreational resources; space for urban and rural areas, accessibility of these resources, governmental policies, and tourism.

**GEOG 334. Geography of Diseases** (3) On demand. Past and present spatial distribution of diseases; cultural and environmental impacts in distribution, transmission, and causes of diseases in different regions of world.

**GEOG 335. Geography of Human Migrations** (3) I. Causes and consequences of selected historical and contemporary human migrations, both international and internal; spatial analysis of characteristics of migration streams and places of origin and destination.

**GEOG 337. American Indian** (3) II. Past and present spatial aspects of native American population in United States and Canada; distributions, migrations, economies, land tenure, cultures, art, rural-urban settlement, impact upon cultural and physical landscapes.

**GEOG 341. Soviet Union** (3) II. Description and interpretation of geographic factors related to present development.

**GEOG 342. Eastern Europe** (2) On demand. Nations of eastern Europe; description and interpretation of geographic factors related to present development.

**GEOG 343. Western Europe** (3) I, II. Geographic aspects in understanding present-day status of countries of Western Europe.

**GEOG 344. Eastern Asia** (3) I. Problems and factors influencing development of countries of eastern Asia; emphasis on China and Japan.

**GEOG 345. Southern and Southeast Asia** (2) On demand. Countries extending from Philippine Islands to Pakistan; different cultures; utilization of resources, future opportunities, and problems of development.

**GEOG 346. Middle East** (3) I. Contemporary problems of Middle East; petroleum development and impact on society, food needs, population problems, and spatial characteristics of religious and linguistic groups.

◆ **GEOG 347. Africa** (2) On demand. Geographic factors influencing development of African countries.

**GEOG 349. Latin America** (3) I. Problems related to contemporary development of societies of Latin America.

**GEOG 350. Anglo-America** (3) II. Problems and factors influencing development of U.S. and Canada.

**GEOG 351. Ohio** (3) I, II. Historical, physical, economic and social problems related to development of Ohio.

**GEOG 400. Special Topics In Geography** (3) On demand. Experimental courses considered part of regular offering.

**GEOG 402. Regional Economic Geography** (3) I or II. Problems of subnational areal units in county and regional planning, poverty pockets, delivery of services; emphasis on individual projects.

**GEOG 404. Climatology** (3) I or II. Fundamentals and applications; drought, water resources, human comfort, health, architecture; short and long-term climatic changes.

**GEOG 405. Meteorology and Man** (3) On demand. Sociological, political, planning and legal aspects of atmosphere as natural resource. Prerequisite: GEOG 125 or GEOG 213.



**GEOG 410. Field Techniques** (3) On demand. Instruction and practice in techniques of field data collection and interpretation. Physical and cultural elements of landscape investigated; emphasis on rural land use systems.

**GEOG 411. Theoretical Cartography** (3) Alternate years. Analysis of cartographic research. Four hours per week; two hours lecture of discussion and two hours of laboratory. May be repeated once upon consent of instructor. Prerequisite: GEOG 322 or consent of instructor.

**GEOG 412. Use and Interpretation of Aerial Photographs** (3) I. Sources, types, characteristics, uses, and limitations of aerial photographs. Training in use of standard equipment for stereoscopic viewing and height measurement.

**GEOG 413. Introduction to Remote Sensing** (3) II. Principles and procedures used to obtain information about natural and cultural features through imagery derived from photographic, multispectral, and side-looking airborne radar sensor systems. Prerequisite: GEOG 412 or consent of instructor.

**GEOG 422. Computer Mapping** (3) II. Map construction and display of geographical data using the computer. Prerequisite: CS 101 or consent of instructor.

**GEOG 425. Food Resources and Rural Development** (3) On demand. Changes and trends in availability, production, and consumption of food resources; related rural problems such as pollution, zoning, recreating, and future expectations of rural areas by urban populations.

**GEOG 426. The American City** (3) I. Internal organization of cities. Ecological and land use problems, ghetto development, urban-economic base, urban sprawl, and intra-urban delivery of services.

**GEOG 427. Genetic and Regional Analysis of Physical Landscapes** (3) On demand. Selected aspects of physical geography (excluding meteorology and climatology); in depth analysis of man's natural environment. Prerequisites: GEOG 126 and GEOG 127 or consent of instructor.

**GEOG 433. Soil Classification and Mapping** (3) II. Classification of soils; use of soil survey equipment; preparation of soil type, slope and erosion maps of assigned areas. Prerequisite: GEOG 126 or permission of instructor.

**GEOG 436. Topics in Community and Area Development** (3) Alternate years. Field analysis of various problems and topics of urban and rural areas. Prerequisite: GEOG 402 or GEOG 426 or consent of instructor.

**GEOG 442. Conservation: Resources and Regional Development** (3) On demand. Problems of area development in relationship to cultural, economic, and physical resources; obstacles to present development, needed changes, and potentials for future growth.

**GEOG 451. Historical Geography of Anglo-America** (3) On demand. Reconstruction of natural environment of U.S. and Canada; how different groups perceived environment and used available resources; emphasis on how man has modified earth's surface.

**GEOG 452. Geopolitics** (3) II. Geographic factors influencing development of states and interrelationship of these countries.

**GEOG 460. Hydrology** (3) I or II. Water's role in geography, environmental systems. Hydrologic phenomena analyzed on basis of scientific interdependence, phases of hydrologic cycle, practices and applications, and socioeconomic aspects. Prerequisite: GEOG 125 or GEOG 126 or GEOG 127.

**GEOG 471. Oceanography** (3) On demand. Geographic aspects of oceanography.

**GEOG 489. Internship** (3) I, II. Provides practical experience in applied geography, such as land use planning; urban and rural planning; recreational, regional, and environmental planning; and location of industrial, commercial, and health service facilities. May be repeated. Only six hours may be applied to GEOG major or minor; additional hours are for general electives. Graded S/U.

**GEOG 490. Special Problems in Geography** (1-3) On demand. Readings and research on varied topics to suit needs of student.

## Geology (GEOL)

◆ **GEOL 100. Introduction to Geology** (3) I, II, summer. The earth; physical and historical geology; including economic, social, and environmental aspects. Not open to geology majors and minors. Credit not given for both GEOL 100 and GEOL 104

**GEOL 101. Earth Science** (3) I, II, summer. Survey of earth's geology, oceanography, meteorology, and place in the universe. Credit not given for both GEOL 101 and GEOL 100 or GEOL 104.

◆ **GEOL 104. Physical Geology** (4) I, II, summer. Introduction to the science of geology, common rocks and minerals, physical processes operating on and in the earth, land forms, and geologic structures. Three lectures and one two-hour laboratory. Credit not give for both GEOL 104 and GEOL 100 or GEOL 101.

◆ **GEOL 105. Historical Geology** (4) I, II, summer. Introduction to the history of the earth and its inhabitants. Three lectures and one two-hour laboratory.

◆ **GEOL 205. Geologic History of Man** (3) I. Evolution, distribution, way of life, and geologic history of prehistoric hominids.

**GEOL 300. Mineralogy** (3) I. Minerals; the chemistry, crystallography, identification, classification, association and genesis of the rock-forming and economic minerals. Two lectures and one three-hour laboratory. Prerequisite or corequisite: GEOL 104 and CHEM 125 or CHEM 135.

**GEOL 301. Lithology** (3) II. Identification, classification and origin of igneous, sedimentary and metamorphic rocks. One lecture and two two-hour laboratories. Prerequisite: GEOL 300.

◆ **GEOL 304. Geology of the National Parks** (4) II, alternate years and summer. U.S. regional geology as illustrated in the national park system. Three lectures and one two-hour laboratory. Prerequisite: GEOL 100 or GEOL 104.

◆ **GEOL 305. Life of the Geologic Past** (4) Summer only. Nontechnical study of fossils and the factors that influence the progressive development of life through geologic time. Three lectures and one two-hour discussion-demonstration laboratory. For nonscientists; not open to geology majors in the B.S. program; not open to students with credit for GEOL 315. Prerequisite: GEOL 100 or GEOL 101 or GEOL 105.

**GEOL 306. Rocks and Minerals** (4) Summer only. Non-technical study of earth materials as illustrated by gems, minerals, and rocks. Two lectures and two two-hour laboratories. Not open to geology majors in B.S. program. Credit not given for GEOL 306 and GEOL 300. Prerequisite: GEOL 100 or GEOL 104.

**GEOL 307. Sedimentary Petrology** (3) I. Classification, origin, megascopic identification, and laboratory analysis of sedimentary rocks. Two lectures and one two-hour laboratory. Prerequisite: GEOL 301.

**GEOL 308. Principles of Stratigraphy** (3) II. Principles of stratigraphy, methods of correlation, and reconstruction of depositional environments. Two lectures and one two-hour laboratory and discussion section. Prerequisites: GEOL 105 and GEOL 301.

**GEOL 309. Structural Geology** (3) II. Identification and interpretation of geologic structures; mechanical principles of deformable bodies; fracture and faulting, flow and folding; elementary concepts of tectonics. Two lectures and one three-hour laboratory. Prerequisites: GEOL 104, PHYS 201 or PHYS 211, and MATH 129 or equivalent.

**GEOL 310. Geomorphology** (3) II. Nature and classification of landforms and processes that produce them; geomorphic systems in relation to varied geologic structures, rocks, and climates. Two field trips required. Prerequisite: GEOL 104.

**GEOL 315. Invertebrate Paleontology** (3) I. Classification, evolution and paleoecology of the fossil invertebrates. Two lectures and one one-hour laboratory. Field trips required. Not open to students with credit for GEOL 315.

**GEOL 322. Human Environmental Geology** (3) I. Aspects of geology critical to wise use of human environment. One half-day field trip required. Credit not given for the B.S. degree in geology. Prerequisite: GEOL 104.

**GEOL 393. Field Methods** (2) I. First half of semester only. Use of instruments and methods applied to field problems in geology. Open to students planning to take GEOL 493 or GEOL 494. One four-hour session. Two field trips required. Prerequisite: consent of instructor.

**GEOL 401. Economic Geology** (3) I Alternate years. Classification and genesis of metallic ore deposits illustrated by study of classic areas. Two lectures and one three-hour laboratory. Field trip required. Prerequisites: GEOL 309 and GEOL 301.

**GEOL 411. Optical Mineralogy** (2) I. First half of semester only. Optical properties and methods of studying natural substance with a polarizing-light microscope. Two lectures and two two-hour laboratories. Prerequisite: GEOL 300.

**GEOL 412. Advanced Historical Geology** (3) II. Regional and stratigraphic geology, including classical areas in North America and Europe. Prerequisites: GEOL 308 and GEOL 315.

**GEOL 416. Petroleum Geology** (3) I. Alternate years. Principles and methods involved in the exploration for oil and gas. Two lectures and one three-hour laboratory. Prerequisites: GEOL 308 and GEOL 309.

◆ **GEOL 418. Geology of Ohio** (3) I. Alternate years. Bedrock and surficial geology of Ohio; state's economic-mineral resources. Two lectures and one two-hour laboratory. Three full-day field trips required. Credit not given for the M.S. degree in geology. Prerequisites: GEOL 100 or GEOL 104 and GEOL 105.

**GEOL 419. Vertebrate Paleontology** (3) II. Alternate years. Fossil vertebrates and their morphology, classification and evolution. Two lectures and one two-hour laboratory. Credit not given for both GEOL 419 and GEOL 305. Prerequisite: GEOL 100 or GEOL 101 or GEOL 105 or BIOL 204.

**GEOL 420. Environmental Aspects of Geology** (3) I. Contributions of geological concepts to environmental concerns. One half-day field trips required. Credit not given for both GEOL 322 and 420. Prerequisites: GEOL 104 and GEOL 310 or consent of instructor.

**GEOL 422. Environmental Geology Report Writing** (1) I. Preparation of environmental geology report for a single Ohio township. Several individual field trips to area. Corequisite: GEOL 322 or 420.

**GEOL 423. Tectonics U.S.A.** (3) II. Examination of major structural/physiographic provinces in the 48 contiguous states from the standpoints of the nature and origin of major structural features and plate tectonic concepts. Prerequisites: GEOL 308 and GEOL 309.

**GEOL 424. Igneous and Metamorphic Petrology** (4) II. Classification, mode of occurrence and genesis of igneous and metamorphic rocks. Three lectures and one three-hour laboratory. Prerequisite: GEOL 411.

**GEOL 425. Microinvertebrate Paleontology** (2) II. Alternate years. Fossil microinvertebrates; morphology, phylogeny, classification and identification. Two two-hour discussion and laboratory sessions. Prerequisite: GEOL 315 or consent of instructor.

**GEOL 431. Introduction to Geochemistry** (3) I. Principles of mass action, acidity, solubility, and introductory thermodynamics; applications to natural systems. Prerequisite: CHEM 126.

**GEOL 432. Geophysics** (2) II. Earthquake seismology; gravity, magnetic, and temperature fields of earth; paleomagnetism; radioactive dating; plate tectonics. Prerequisites: GEOL 309, PHYS 211, and MATH 131; or consent of instructor.

**GEOL 433. Stratigraphic Chorology** (3) I. Biochronology, evolution, and distribution of fossil faunas through geologic time. Two lectures and one two-hour laboratory. Prerequisite: GEOL 315 and GEOL 308.

**GEOL 472. Marine Geology** (3) II. Alternate years. Processes, sediments, and organisms of modern marine environments; interrelationships and expression in rock record. Prerequisite: consent of instructor.

**GEOL 473. Field Experience in Marine Geology** (1) II. Alternate years. Field experience in marine environments as related to geologic record. Prerequisite or corequisite: GEOL 472, consent of instructor.

**GEOL 475. Workshop in Seismology** (1) I, II. Supervised program in theory of seismology, operation of seismological observatory, interpretation of seismic records. May be repeated to four hours. Prerequisite: consent of instructor. Graded S/U.

**GEOL 480. Seminar in Geology** (2) I, II. Study of selected topic. May be repeated to four hours. Prerequisite: consent of instructor.

**GEOL 483. Coastal Marine Geology** (3) Summer only. A study of inshore and nearshore geological processes, sedimentation patterns, and landform development. Prerequisites: physical and historical geology. Taught at Gulf Coast Research Laboratory under their number GEOL 431.

**GEOL 490. Geological Problems** (1-3) I, II, summer. Individual work for student who has shown proficiency and marked degree of independence in work. May be repeated to four hours. Prerequisite: consent of instructor.

**GEOL 493. Field Experience** (6) Summer only. Recognition and study of geologic structures, landforms, and rock units in the field. Written report required. Not open to B.S. geology majors. Prerequisites: GEOL 104 and GEOL 105, or GEOL 304 and consent of instructor.

**GEOL 494. Field Geology** (6) Summer only. Principles and practice of field geology and geologic mapping. Final map and report required. Prerequisites: GEOL 308, GEOL 309, and consent of instructor.

**GEOL 496. Field Course in Modern Marine Environments** (1-6) Summer only. Field study of shallow-water marine environments. Prerequisite: consent of instructor.

## German (GERM)

Entering students who had German in high school should take the placement test during summer preregistration or prior to enrollment in a course.

**GERM 100. Introduction to Language Study: German** (1) I, II. Comparison and contrast of cognate vocabulary, structure and syntax of English and German; interrelationship between language and culture. Not open to students who have completed GERM 102.

**GERM 101. Elementary Language and Culture I** (4) I, II. Cultural approach to beginning language study in the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

**GERM 102. Elementary Language and Culture II** (4) I, II. GERM 101 continued. Four class periods and laboratory practice each week. Prerequisite: GERM 101, or by placement.

**GERM 117. Beginning Conversational German I** (2) I. Basic conversational German. Suggested as a supplemental course to accompany GERM 101, or may be taken independently. Not open to students who have completed GERM 102.

**GERM 118. Beginning Conversational German II** (2) II. Basic conversational German continued. Prerequisite: GERM 117 or GERM 101 or permission of instructor. Not open to students who have begun or completed GERM 201.

**GERM 131. Beginning Reading German** (3) II. Development of reading skills, including attention to major problems of syntax and vocabulary. Not open to majors or minors, nor to students who have taken GERM 102.

**GERM 201. Intermediate German I** (3) I, II. Grammar review; development of the four skills. Three class periods and laboratory practice each week. Prerequisite: GERM 102, or by placement.

**GERM 202. Intermediate German II** (3) I, II. GERM 201 continued. Three class periods and laboratory practice each week. Prerequisite: GERM 201, or by placement.

**GERM 217. Intermediate Conversational German I** (2) I. Practice in conversation at the intermediate level. Suggested as supplemental course to accompany GERM 201, or may be taken independently. Not open to students who have begun or completed GERM 317. Prerequisite: GERM 118 or 102 or permission of instructor.

**GERM 218. Intermediate Conversational German II** (2) II. GERM 217 continued. Not open to students who have begun or completed GERM 318. Prerequisite: GERM 217 or 201 or permission of instructor.

**GERM 231. Scientific and Technical Reading** (3) I. Development of reading and translating proficiency in scientific, technical and expository prose. Vocabulary building, analysis of syntax and grammar for reading purposes. Prerequisite: GERM 102 or equivalent.

**GERM 260. Modern German Literature in Translation** (3) I, II. Readings in English of internationally known authors from German-speaking countries. May include Kafka, Mann, Hesse, Brecht, Grass and others. Course does not count towards a German major or minor.

**GERM 300. Introduction to Study Abroad** (1) II. Preparation for study abroad. Limited to Salzburg and German Exchange Program participants. Course does not count towards German major or minor. Graded S/U.

**GERM 311. Introduction to Literature: 20th Century** (3) I. Representative authors of the 20th century; development of reading skills and vocabulary necessary for discussion of literature. Prerequisite: GERM 202, or by placement.

**GERM 313. Introduction to Literature: 18th and 19th Centuries** (3) II. Major authors and representative works of the 18th and 19th centuries; literary movements as reflection of culture; development of reading skills. Prerequisite: GERM 202, or by placement.

**GERM 315. German Culture and Civilization** (3) I, II. Cultural-historical treatment of the social, intellectual and artistic life of the German-speaking peoples from medieval times to World War II. Lectures, audio-visual presentations, and readings in English.

**GERM 316. Contemporary German Life** (3) I, II. Lecture-reading course on contemporary East and West Germany. Rebuilding and development of the two German states from 1945 to the present: political and social systems, geography, education, cultural life, mass media, patterns of daily living. Lectures, audio-visual presentations, and readings in English.

**GERM 317. Composition and Conversation I** (3) I. Extensive practice in speaking and writing German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 202, or by placement.

**GERM 318. Composition and Conversation II** (3) II. GERM 317 continued. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 317 or permission of instructor.

**GERM 319. German Phonetics and Pronunciation** (1) II. Theory and practice of German pronunciation; introduction to phonetic principles. Prerequisite: GERM 102.

**GERM 331. Workshop in Translation** (3) II. Small group work in German to English translation of scientific, technical or business writing, or other types of expository prose in the student's specialty. May be repeated to six hours with different projects. Prerequisite: GERM 231 or GERM 201 or permission of instructor.

**GERM 360. Literature in Translation** (3) On demand. Variable topic course on German literature in translation; may center on authors, periods, genres or themes. May be repeated to six hours with different topics. Prerequisite: previous literature course in any department, or permission of instructor. Course does not count towards a German major or minor.



**GERM 380. Topics in German Language, Thought or Culture** (1-3) On demand. Topic chosen to meet curriculum needs and student requests. May be repeated to six hours with different topics. Prerequisite or corequisites: GERM 317 and GERM 311 or 313 or 331.

**GERM 407. Classical Age of German Literature** (3) Alternate years. Selected works from classical period of German literature, especially the writings of Goethe and Schiller. Prerequisites: GERM 311 or 313, GERM 318.

**GERM 409. German Romanticism** (3) Alternate years. Major authors of the romantic era; introduction to the theoretical and philosophical representatives. Prerequisites: GERM 311 or 313, GERM 318.

**GERM 411. Modern German Drama** (3) Alternate years. Selected major representatives of modern German drama from Hauptmann to the present. Prerequisites: GERM 311 or 313, GERM 318.

**GERM 412. Modern German Prose** (3) Alternate years. Selected major representatives to prose fiction from about 1900 to the present. Prerequisites: GERM 311 or 313, GERM 318.

**GERM 415. The German Film** (3) On demand. Cultural and literary aspects of German film; emphasis may be on important developments in German filmmaking, thematic aspects of film, or on interrelationships between literary and cultural phenomena and the film.

**GERM 417. Advanced Composition and Conversation** (3) I. Development of increased facility in speaking and writing. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

**GERM 418. Stylistics, Syntax and Structure of German** (3) II. Practice and problems of writing style and syntax. Descriptive study of grammatical structures, contrastive analysis of English and German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

**GERM 419. German Drama Workshop** (3) II. Practical advanced linguistic training through active participation in theatrical projects; advanced phonetics; methods of utilizing dramatic productions as part of foreign language instruction. Prerequisite: GERM 417 or permission of instructor.

**GERM 431. Advanced German-English Translation** (1-2) On demand. Analysis and application of translating techniques; attention to levels and areas of style. Intensive general practice followed by work on individual projects. May be repeated to six hours with different projects. Prerequisites: six hours from GERM 317 and/or GERM 318 and/or GERM 331.

**GERM 432. Advanced English-German Translation** (1-2) On demand. Analysis and application of translating techniques; expansion on working vocabulary and idiomatic basis in German. Treatment of structural differences between languages through error analysis. General practice; individual projects. May be repeated to six hours. Prerequisites: six hours from GERM 317 and/or GERM 318 and/or GERM 331.

**GERM 490. Selected Topics in German** (1-3) On demand. Topic chosen from literature, culture or language to meet curriculum needs and student requests. May be repeated to six hours with different topics. Prerequisites: GERM 318 and two courses from GERM 311, 313, 331, 380.

**GERM 482. Introduction to Germanic Linguistics** (3) I. Derivation of modern Germanic languages from Proto-Indo-European. Classification and history of the Germanic language group. Development of the German language to New High German. Prerequisites: GERM 202 or permission of instructor.

**GERM 491. Studies in German** (1-3). Independent study project for advanced students in German. May be repeated to six hours with different projects. Prerequisite: arrangement with instructor and consent of department chair prior to registration.

## Gerontology (GERO)

**GERO 400. Special Topics in Gerontology** (1-3) On demand. Independent study on subject matter related to gerontology not otherwise offered. May be repeated. Prerequisite: consent of program director.

**GERO 410. Administration and Aging** (2) I. Administration in field of aging; legislation, bureaucratic structures, and model programs. Prerequisites: enrollment in gerontology program and senior standing, or permission of program director.

**GERO 420. Proposal Writing in Gerontology** (2) I. Funding potential, methods, design, and proposals in the field of aging. Prerequisites: enrollment in gerontology program and senior standing, or permission of program director.

**GERO 491. Practicum in Gerontology** (2-10) I, II, summer. Experience in working under supervision in selected agencies providing services to the aged. Emphasis on practice rather than observation. May be repeated. Prerequisites: enrollment in gerontology program or permission of program director; junior or senior standing; 2.00 GPA prior to registration. Graded S/U.

**GERO 493. Practicum Seminar** (1) I, II, summer. Analysis of problems and experiences encountered in practicum. Prerequisites: permission of program director and GERO 491. Graded S/U.

## Health and Community Services (HCS)

**HCS 100. Seminar in Health and Community Services** (1-5) On demand. Interdisciplinary study of special health or community service topics. May be repeated. Prerequisite: consent of dean's office.

**HCS 440. Seminar in Health and Community Services** (1-5) On demand. Interdisciplinary study of special health or community service topics. May be repeated. Prerequisite: consent of dean's office.

**HCS 491. Field Experience in Parasitology and Medical Entomology** (3) I, II, summer. On demand. Field or clinical experience in one or more public health, industrial, or agricultural locations. May be repeated at different stations, but not for credit toward graduation beyond first registration. Prerequisite: approval of program director. Graded S/U.

**REHB 401. Introduction to Rehabilitation Counseling** (3). Characteristics and principles of the rehabilitation process; disabilities and agencies serving the disabled.

## Health Education (HED)

(See health, physical education and recreation.)

## History (HIST)

**HIST 151. World Civilizations** (3) I, II. Comparative study of selected Western and Asian civilizations in terms of how and why economic, social, political, and intellectual factors shaped and defined history of ancient and medieval worlds.

**HIST 152. The Modern World** (3) I, II. Comparative study of how and why selected economic, social, political, and intellectual revolutions of the modern world have transformed and are shaping contemporary European and non-Western cultures.

◆ **HIST 205. Early America** (3) I, II. Selected constitutional, intellectual, political, and social developments that defined and shaped America between its first European settlement and the end of the Civil War and Reconstruction.

◆ **HIST 206. Modern America** (3) I, II. How and why selected economic, intellectual, political, and social developments transformed post-Civil War America and shaped 20th-century American society.

**HIST 240. Historical Perspectives on American Culture** (3) I. Interdisciplinary study of the historical development of selected aspects of American culture with emphasis on the relationships between historical events and cultural expression. Recommended for students electing history/American studies for general education or group requirements (same as AMST 240). May be repeated.

◆ **HIST 280. Asian Civilizations** (3) I, II. Comparative study of selected modern Asian societies which focuses on cultural, economic, political, and social tradition and change in the world's oldest continuous civilizations.

◆ **HIST 291. Studies in History** (1-3). Introductory approaches to history. Content and theme vary with instructor. For students electing history for general education or group requirements.

**HIST 301. American Military History** (3) I. Development of American military institutions, policies, strategy, tactics from American Revolution to present.

**HIST 302. Crime, Poverty, and Violence in 19th Century** (3) II. Development of criminal justice systems in England, France, and U.S. Impact of differing national cultures on emergence and development of professional police in these countries.

**HIST 303. World War II** (3) I. How and why Atlantic-European, Mediterranean, and Pacific Asian theaters of war produced global dynamics in three acts: 1. 1939-1942 - German and Japanese expansion, innovative tactics; 2. 1942-43 - mobilization and technology, propaganda and intelligence, air and sea war; 3. 1944-45 - U.S. and U.S.S.R. counter-expansion, grand strategy, and politics of war.

**HIST 304. The Bible as History: The New Testament** (3) II. Based on modern Biblical scholarship; analyzing the New Testament as a historical medium reflecting the cultural matrix of Greco-Roman Palestine, conveying the eschatological message of Jesus through his disciples, and maneuvering the evangelical mission of the early Christian church.

- HIST 305. The Bible as History: The Old Testament** (3) I. Major problems relating to content, and context of Old Testament historically interpreted in modern Biblical scholarship; keyed to demonstrating authenticity of evidence, integrity of explanation, and continuity of experience found in Bible.
- ◆ **HIST 306. History of Ohio** (3) I, II. Precolonial background, early exploration, settlement; Northwest Territory; Ohio in French and Indian War, American Revolution, War of 1812; Ohio's place in national development.
- HIST 307. Afro-American History** (3) I. History of black Americans from African origins, slavery, and emancipation through rural Southern and 20th century urban experiences.
- HIST 309. Latin America: Period Before Independence** (3) I. Latin-American history treating these phases: pre-Columbian; discovery and conquest; colonial; wars of independence. Role of indigenous and European cultures in development of Latin America.
- HIST 310. Modern Latin America** (3) II. Common and unique social, economic, political, and intellectual features of Latin American nations and Latin America in world affairs.
- HIST 311. United States-Latin American Relations, 1810-Present** (3) II. Development of the Western Hemisphere idea, Panamericanism, Dollar Diplomacy, The Good Neighbor Policy, cooperation in World War II, the Cold War, the role of multinational corporations and U.S. response to social change in Latin America.
- HIST 315. Slavery in Americas** (3) II. African slave trade and various slave societies which that traffic gave birth to in Western hemisphere. Emphasis on Cuba, Jamaica, Brazil, and American South.
- HIST 316. Famine and Revolution in Peasant Nations: Historical Roots** (3) II. Indonesia as model to understand problems facing peasant nations in Asia, Africa, and Latin America. European imperial penetration and traditional peasant values; why peasant societies are vulnerable to periodic famine. Revolutionary changes that have transformed England, Russia, Japan, and China to understand what changes must take place if industrialization is to succeed in peasant nations.
- HIST 320. Social History of American Medicine** (3) II. Leading theorists; major social and public policy determinants of health care in America from 1780 to present.
- HIST 323. History of American Journalism** (3) I, II. American journalism from colonial newspapers to multimedia age, emphasizing 20th century.
- HIST 325. Business History of the United States** (3) II. American business in its historical setting from 1607 to present. Interaction between economic and political forces in explaining unique role private enterprise has played in American life.
- HIST 326. Women in American History** (3) I, II. Major issues and movements in American history that have involved women from colonial period to modern times.
- ◆ **HIST 330. Practicum in History** (2) II. A series of practical exercises for prospective teachers of history and social studies at the primary and secondary levels that demonstrates how to identify, select, and organize historical data from available school-system materials (especially textbooks) for effective classroom treatment of topics and themes. Strongly recommended as a supplement to EDCI 351 or 376.
- HIST 338. American Environmental History** (3) II. Three centuries of changing American attitudes and actions toward natural environment, rise of conservation movement and development of ecological perspective.
- HIST 340. World of Bible** (3) I. Major civilizations of ancient Near East (Mesopotamia, Egypt, Syria, and Israel); defining, comparing, and contrasting Oriental and Biblical social traditions as embodied in respective institutions, art, literature, religion.
- HIST 357. English Origins of American Law** (3) II. Medieval and early modern English history; origin and growth of legal and constitutional doctrines, institutions, and procedures important to understanding American legal system.
- HIST 360. Major Personalities of 20th Century** (3) II. Biographical study of individuals whose lives made substantial changes in aspects of modern society, examined both as individuals and as representatives of major movements of 20th century.
- HIST 363. French Revolution and Napoleon** (3) II. Impact of French Revolution on society of Old Regime; formation of revolutionary creed; Great Revolution, Jacobin Republic, Thermidor; Napoleon and principles of 1789.
- HIST 367. Hitler's Germany: Rise and Fall of Nazism** (3) I. Major developments in Germany from defeat in 1918 through collapse in 1945 and recovery in Cold War era. Weimer Republic, Hitler, Third Reich, post-war reactions and conditions; keyed to causes and effects of Nazi totalitarianism and racism.
- HIST 377. 20th Century Europe** (3) I. European historical development in 20th century; major forces, events, and experiences that have shaped Europe and its place in contemporary world.
- HIST 381. United States and Asia** (3) II. U.S. relations with China, Japan, India, and southeast Asia in 20th century; interaction of domestic politics and foreign policy; Asian nationalism, militarism, communism; America's involvement in wars and peace-making.
- HIST 382. Chinese Culture and Institutions** (3) I. Unique cultural and institutional developments of traditional China and relations with Korea. Intrinsic value of broadening perspectives through exposure to major non-Western cultural experience.
- HIST 386. Japanese Culture: Multi-Media Approach** (3) II. Higher culture in traditional Japan. Religion, visual arts, literature, theatre, and uniquely Japanese arts. Political and institutional history as it relates to cultural development.
- HIST 391. Special Studies in History** (1-3) I, II. Content and theme vary with instructor. Designed to meet needs and interest of nonmajors.
- HIST 395. Workshop on Current Topics** (1-3) On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format used. Requirements usually completed within time format. May be repeated if topics differ on approval of adviser.
- HIST 400. Topics in History** (2-3) On demand. Study of selected topics or subject areas.
- HIST 401. Caesar and Christ: Social Worlds of Late Antiquity and Early Christianity** (3) I. Basic issues and problems involved in tensions and conflicts between pagan and Christian that were eventually accommodated in 4th century A.D.; social disaffection, political resistance, and cultural alienation.
- HIST 411. Modern Mexico** (3) II. Analysis of first Latin-American state to experience political, social, and economic revolution in 20th century; causes of the revolution, leaders and institutions produced, emergence of Mexico as relatively stable and progressive state.
- HIST 413. Caribbean and Spanish Main** (3) II. Political, economic, and social development of Greater Antilles and Spanish Main from 17th to 20th centuries; war and trade, slavery, revolution, caudillism, and communism in Caribbean.
- HIST 414. Canada** (3) I. European colonial rivalry, problems of European-settled colonies, emergence of colonial self-government, confederation movement, search for national identity, nature of commonwealth nation, role as mediator in Anglo-American relations, importance as independent neighbor.
- HIST 415. Spain and Portugal** (3) II. Political, economic, and social development of Iberian peninsula from invasion of Moors to 20th century dictators; reconquest, reign of Hapsburgs, Spanish Civil Wars, regimes of Franco and Salazar.
- ◆ **HIST 419. Westward Movement in America** (3) I. Development of Trans-Mississippi West during 19th century; American Indian, territorial expansion, sectional conflict, economic development.
- HIST 420. Topics in American West** (3) II. Selected topics in history of Trans-Mississippi West; frontier literature, territorial system, California, conservation, Indian affairs, modern west.
- ◆ **HIST 421. American Colonial History, 1492-1763** (3) I. European backgrounds of American history, establishment of European settlements and institutions, emergence of colonial culture, conflict between France and England for New World.
- ◆ **HIST 422. American Revolutionary Era, 1763-1815** (3) II. Causes, course, and consequences of War for Independence; organization of government and emergence of national party system; economic, social, diplomatic problems of young republic.
- HIST 425. Conflict and Division in U.S.** (3) I. Economic, social, political institutions of 1815-1860; Old South and forces that produced Civil War.
- HIST 426. Civil War and Reconstruction, 1861-1877** (3) II. Political, economic, and cultural conditions during War; resulting problems to peoples and governments of both sections continuing through postwar period.
- HIST 427. American South, 1865-Present** (3) II. Reconstruction South, new industrial growth, evolution of Southern agriculture, racial and labor problems. South in American political life, southern education and culture, South today.
- HIST 428. Emergence of Modern America, 1877-1900** (3) I. Transformation of U.S. from isolated, agrarian nation into modern, industrialized world power; economic, social, cultural, and political problems which attended this change.

- HIST 429. Progressive Era and Years of Republican Ascendancy, 1900-1933** (3) II. American political and economic progressivism; great crusade of World War I; "normalcy" and business society of Twenties; great crash and early depression years; intellectual, cultural, social change of Roaring Twenties.
- ◆ **HIST 430. Recent U.S. History** (3) II. Politics, public policy, and society from the New Deal to the present.
- HIST 433. American Constitutional History** (3) I. Constitutional developments from framing of the Constitution in 1787, which established a federal republic that protected states rights, to creation of a national republic after Civil War, aiding rapid industrialization and creating need for business regulation, social welfare state; national protection of civil rights, and expanded role of presidential leadership.
- HIST 436. American Social and Intellectual History** (3) I. Select topics in American social and emotional experience during 19th and 20th centuries: nationalism, regionalism, urbanization, immigration, ethnicity, professionalism, gender, childrearing, education, mental health.
- HIST 437. U.S. as World Power in 20th Century** (3) I. American involvement in world affairs; imperialism in Asia and Latin America; World War I - response to German militarism and Russian communism; postwar "isolationism"; World War II - background to Pearl Harbor, wartime alliances, peace settlements.
- HIST 438. U.S. Foreign Policy; World War II-Present** (3) II. Origins of Cold War and containment policy toward Soviet Union, U.S. response to communism in China, Korean War; complex causes and controversial strategies; U.S. involvement in and failure in Vietnam; Cuban missile crisis and movement toward "detente."
- HIST 441. Classical Hellenism (1000-400 B.C.)** (3) I. Ancient Greek society and culture from "dark ages" through "golden age" of 5th century. Resourcefulness of Hellenism in democratic politics, imperialistic policies, and classic products of Periclean Athens. Weakness of Greek civilization in coping with crises engendered by Atheno-Peloponnesian war.
- HIST 442. Roman Revolution: From Gracchi Through Caesar Augustus** (3) II. Crisis of social turbulence, political violence, and cultural ambivalence that marked Rome's transition from city-state to world state; how and why Roman archaism, republicanism, and imperialism contributed to collapse of Late Republic and creation of Early Empire.
- HIST 444. The Making of Europe** (3) II. Cultural, religious, political, and economic aspects of the Middle Ages which laid the framework for modern European civilization; cross-cultural contacts with the Christian and Islamic East.
- ◆ **HIST 448. Modern European Society and Thought** (3) II. Major social and intellectual trends in modern European society, including liberalism, socialism, Marxism, fascism, existentialism and post-war disillusionment.
- HIST 454. European Foreign Relations, 1914-Present** (3) I. Foreign policies and diplomatic practices of the great powers and their statesmen: World War I, postwar quest for stability; World War II, Europe in the Cold War; contemporary problems.
- HIST 458. England, 55 B.C.-1689** (3) I. Major constitutional, economic, political, religious, and social developments through 17th century: making of the Anglo-Saxon kingdom, feudal government and society, crisis of late medieval England, Tudor restoration of order, 17th-century civil war and revolution.
- HIST 459. Great Britain, 1689-Present** (3) II. Growth of parliamentary government; impact of the Enlightenment, French Revolution, and industrialization; Victorian England; political and economic reform; two world wars and their consequences.
- HIST 462. British Empire-Commonwealth** (3) I. Rationale of imperialism, expansion of Britain overseas, development of colonial holdings, evolution of concept and reality of Commonwealth of Nations.
- HIST 464. History of France Since 1815** (3) II. Social and economic development of France, 1815 - Third Republic; Jacobin radicalism, emergence of French labor movement; France between two world wars; Vichy and the Resistance; problems of Fourth and Fifth Republics.
- HIST 469. Medieval and Imperial Russia, 900-1825** (3) I. Radical, political, and religious origins; development of autocracy; national and imperial problems to death of Alexander I.
- ◆ **HIST 470. Modern Russia, 1825-Present** (3) II. Revolutionary origins; social, economic, political position in 19th and 20th centuries.
- HIST 471. Education and Revolution in Russia** (3) II. Russian-Soviet struggle to create perfect society dominant in world through interplay of education and revolutionary ideology as reciprocal political tools.
- HIST 480. Senior Seminar in History** (3) I, II. For selected senior history majors. Examination of historical literature, problems of historical research, discussion of various historical methods. Open to history majors by invitation only.
- HIST 481. History of Africa, 18th Century-Present** (3) II. Anti-slavery movement, rise of forest and savannah kingdoms, Islamic revival, impact of Christianity, European exploration, imperialism, colonialism, nationalism, and rise of modern African states.
- HIST 483. Revolution and Tradition in Modern China** (3) II. China from decline of Ch'ing dynasty to rise of People's Republic; problems of culturalism, nationalism and Maoist strategy for successful peasant revolution. China's cultural legacy struggles for unity and independence. China's relations with U.S.
- HIST 486. Japan: New Superstate** (3) II. Japan's successful modernization since "opening" to West in 1853; political development, industrialization, expansion; Japan's rise from defeat in World War II to world economic power.
- HIST 495. Readings in History** (1-3) I, II. Individual readings in consultation with instructor in fields of special historical interest. Prerequisite: consent of department chair and instructor.
- Home Economics (HOEC)**
- ◆ **HOEC 101. Clothing Design and Construction** (3) I, II. Aesthetic principles of design and analysis of clothing construction methods. Evaluation of basic techniques and their application to construction of garments. Consumer buying of clothing analyzed.
- ◆ **HOEC 103. Textiles** (3) I, II. Fiber, yarn and fabric structures; finishes; color and design. Selection and care of fabrics for personal and household uses.
- ◆ **HOEC 105. Personal and Family Relationships** (3) I, II. Growth and development of college students as individual and in social relationships in family, college, community; activities and functions of present-day family.
- HOEC 107. Black Families in America** (3) I, II. Living patterns of the American black family; historical development, present status, strengths, problems, and prognosis.
- ◆ **HOEC 120. Survey of Child and Family Community Services** (3) I, II. Institutions and agencies serving children and families. Principles of effective services including qualifications and preparation of professional people.
- ◆ **HOEC 123. Introduction to Early Childhood Education** (3) I, II. Conceptualization of early childhood education. Review of experiences provided in different early education programs.
- HOEC 195. Telecourse on Current Topics in Home Economics** (1-3) On Demand. Selected introductory topics; departmentally supervised presentations via television complemented by seminars or other student-teacher interaction in groups or individually.
- HOEC 202. Intermediate Clothing and Basic Flat Pattern** (3) I, II. Clothing construction techniques and couture methods as applied to commercial designer patterns. Basic flat pattern knowledge and skills resulting in design and execution of an original muslin garment. Prerequisites: HOEC 101 and HOEC 103.
- HOEC 204. Introduction to Fashion Merchandising** (3) I, II. Fashion design and terminology; organization of fashion industry and career opportunities in fashion. Prerequisites: HOEC 101 and HOEC 103 or consent of instructor.
- ◆ **HOEC 205. Home Management** (3) I, II. Effects of values and philosophy on decisions regarding family resources: time, energy, knowledge, ability, skills and attitudes in achieving family goals. Work simplification, history of discipline, and evaluation in home management.
- HOEC 206. Household Equipment** (3) I, II. Selection, operation, care and management of household equipment for efficient use, safe operation and increased consumer satisfaction. Two hours lecture, two hours lab per week. Lab fee.
- ◆ **HOEC 207. Essentials of Nutrition** (3) I, II. A non-technical course. Application of fundamental principles of nutrition in selection of adequate diet for optimal health; current nutrition controversies. Not open to home economics education, dietetics, or food and nutrition majors.
- HOEC 210. Fundamentals of Food Science** (3) I, II. Art and science of foods. Scientific principles reinforced by actual preparation of foods and meal service. Lab fee. One hour of lecture and four hours of lab.
- HOEC 212. Meal Service Management** (3) I, II. Management of available resources for planning, organization, preparation and service of family and commercial type meals. Controls in purchasing, receiving, storage and costing. Lab fee. One hour of lecture and four hours of lab. Prerequisite: HOEC 210.

**HOEC 219. Fabric Use in Interior Design** (3) Fundamental workroom techniques used in construction of textile products for residential and commercial interiors.

**HOEC 223. Child Study** (2) II. Development of young children as individuals and in groups using observation and other data gathering techniques.

**HOEC 224. Program Planning and Creative Experiences for Young Children** (3) I, II. Play, materials, methods of presentation and ways of enhancing creativity in children under six. Planning, carrying out and evaluating experiences and activities with groups of young children.

**HOEC 250. Foundations of Home Economics** (3) I. Home economics: the profession, the role of the educator, and understanding students; development of educational strategies including peer teaching thru field and clinical experiences. One hour of seminar and three hours of experience in a professional setting.

**HOEC 295. Telecourse on Current Topics in Home Economics** (1-3) On demand. Selected advanced topics; departmentally supervised presentations via television complemented by seminars or other student-teacher interaction in groups or individually.

**HOEC 302. Foundations for Marriage and Family Relations** (3) I, II. Development of basic philosophy about marriage and family relations in a democratic society. Emotional, psychological and physical relationships and family interrelationships. Prerequisites: HOEC 105 or SOC 101; junior or senior standing.

**HOEC 303. Home Furnishing** (3) I, II. Today's interiors from standpoint of use, economy, beauty, and individuality. Recognition and evaluation of space needs, window, wall, and floor treatments as well as furnishings and accessories. Prerequisite: ART 101 or ART 102.

**HOEC 305. Integrating Career and Family** (3) I. Issues facing dual-career families; applied problem-solving as approach to family decision making, communication, childrearing, career patterning. Not open to students with credit for BA 305.

**HOEC 307. Nutrition** (3) I, II. Principles of nutrition with applications to planning diets for individuals under different conditions. Lab fee. Two hours of lecture and two hours of lab. Prerequisites: HOEC 212 and CHEM 116 or 306.

**HOEC 310. Microwave Oven Application** (2) I. Selection, care and effective utilization of the microwave appliance and accessories. One hour lecture, two hour lab. Lab fee. Prerequisite: HOEC 206.

**HOEC 311. Home Management Laboratory** (3) I. Integration and application of concepts; processes and principles of family resource management within household environment. Lab fee. Four hours lecture/lab plus arranged. Prerequisites: HOEC 205 and HOEC 307.

**HOEC 313. Textile Analysis** (3) I, II. Economic, political and cultural forces related to production and use of historic and modern textiles; emphasis on recent technical developments and consumer textiles. Prerequisite: HOEC 103.

**HOEC 319. Residential Interiors** (3) I, II. Application of design principles in residential interiors. Problem formulating and problem-solving in restoring and renovating residential interiors. Professional organization of design portfolio for residential employment. Prerequisites: CONS 235, DESN 301 and HOEC 303.

◆ **HOEC 320. Infant Development** (3) I, II. Growth and development of infants from conception to toddler stage.

**HOEC 321. Child Development** (3) I, II. Physical, emotional, social and cognitive development of children from conception to school age. Developmental theories and influences of family and society.

**HOEC 322. Child Development Practicum** (3) I, II. Supervised participation with pre-school children. One hour of lecture and six hours of lab. Must apply in the Child Development Center office one semester prior to participation. Prerequisite: HOEC 321 or EDFI 342.

**HOEC 326. Foods of Other Cultures** (2) I, II. Geographic, economic, and cultural influences on dietaries in selected regions of the world. Preparation and service of regional U.S. and foreign foods. Lab fee. One hour of lecture and two hours of lab. Prerequisite: at least one food content course.

**HOEC 328. Preadolescent and Adolescent in Family and Community** (3) I. Development and socialization of adolescents and preadolescents; youth problems, culture, and growth. A review of research relevant for intervention or service programming. Prerequisite: HOEC 105 or consent of instructor.

**HOEC 331. Quantity Food Production Management** (3) I. Preparation and service of quality foods for institutions and restaurants. Menu planning, food purchasing, and issuing of stores; supervision and cost control. Two hours of lecture and three hours of clinical experience. Prerequisite: HOEC 212.

**HOEC 333. Institutional Kitchen Planning** (3) I, II. Institutional kitchen design and evaluation of existing facilities. Space allocation of subsystems and efficient flow of materials. Selection and placement of equipment, floor, wall and window treatment; interior design. Two hours of lecture and two hours of lab. Prerequisites: HOEC 331, DESN 301.

**HOEC 352. Vocational Home Economics in Secondary Schools** (3) I. Principles, objectives, curriculum, instructional materials and methods of vocational home economics. No S/U grade for home economics majors. Prerequisites: HOEC 250, EDFI 302 or junior standing.

**HOEC 353. Organization and Teaching in a Vocational Job Training Program** (3) II. Techniques of teaching, occupational analysis, curriculum planning and supervision of cooperative education in school programs and in vocational and technical schools. No S/U grade for home economics education majors. Prerequisites: HOEC 250; HOEC 352 prerequisite or concurrent.

**HOEC 354. Curriculum Management in Home Economics** (2) II. Field experience and coordinated seminar examining curriculum management as it differs in urban, suburban, or rural schools. No S/U grade for home economics majors. Arrangements made in consultation with home economics education faculty. Prerequisite or corequisite: HOEC 352.

**HOEC 389. Supervised Field Experience** (1-5) I, II, summer. Supervised work experience of diversified nature in approved field site. Contact hours and specific requirements obtainable from authorized home economics faculty members in the specialized areas. May be repeated. Prerequisite: consent of department. Graded S/U.

**HOEC 395. Workshop on Current Topics** (1-3) On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format used. May be repeated on approval of adviser.

**HOEC 401. History of Costume** (3) I. Development of western costume from Egyptian times to present; emphasis on relation to modern costume to earlier forms of dress.

**HOEC 402. Fashion Merchandising** (3) I, II. Planning, selection, and marketing of fashion merchandise, including identification of a target customer, building a fashion image, financial planning, assortments and unit control, fashion promotion, and trend merchandising. Prerequisite: HOEC 204 or consent of instructor.

**HOEC 403. Sociological and Psychological Aspects of Clothing** (3) II. Cultural, sociological and psychological factors influencing clothing habits of individuals and groups are related to their environments. Prerequisites: SOC 101 and PSYC 201 and junior standing.

**HOEC 404. Tailoring** (3) I, II. Specialized techniques of professional tailoring used in construction of a suit or coat. Analysis of quality in ready-to-wear tailored garments. Prerequisite: HOEC 202 or consent of instructor.

**HOEC 405. Family and Consumer Economics** (4) I, II. Families' financial planning; conditions as they affect consumer decisions in relation to patterns of living, income, and goals. Not open to students with credit for BUSE 240.

◆ **HOEC 406. Housing the Family** (3) II. Selecting, financing and adapting housing for families with varying lifestyles and needs. Energy efficiency, government role in housing, renting and owning options, and psychological needs emphasized.

**HOEC 407. Research in Human Development and Family Studies** (3) I, II. Learning methods of research by completing a research project on a topic of the students' choice in the area of human development and family studies. Prerequisite: HOEC 105 or consent of instructor.

**HOEC 408. Investigations in Family Life of Minority Groups** (3) I. Directed investigation of family life of racial and cultural minority groups in United States. Prerequisite: junior or senior standing.

**HOEC 412. Advanced Apparel Design** (3) II. Creative expression and application of principles of apparel design through the media of flat pattern and draping. Development of original design from sketch to finished garment. Prerequisite: HOEC 202.

**HOEC 413. Advanced Home Management** (3) II. Alternate years. Recognition, integration, and application of management principles and concepts in a variety of family managerial situations. Utilization of appropriate technology. Prerequisite: HOEC 205 or consent of instructor.

**HOEC 414. Experimental Clothing Construction** (3) I. Experimental approach to factors influencing construction of apparel. Prerequisite: HOEC 202 or consent of the instructor.



**HOEC 415. Home Management for Low Income Families** (3) II. Alternate years. Managerial behavior of economically deprived families. Emphasis on improving managerial skills in identifying, conserving, increasing and using resources to realize family values and goals. Prerequisite: HOEC 205.

**HOEC 416. Advanced Household Equipment** (2) II Alternate years. Current trends, development and research in household equipment with implications for consumers. Research project related to students' professional interests required. One hour lecture, two hours lab.

**HOEC 417. Home Furnishing Laboratory** (3) II. Renovation and construction of various furnishings including refinishing, upholstery, slip covering and drapery making for home and professional purposes. Prerequisites: HOEC 101 or HOEC 219 and HOEC 303 or consent of instructor.

**HOEC 418. History of Interiors** (3) I. European and American furniture from 14th through 20th centuries with corresponding interiors; wall, window and floor treatments and decorative arts. Prerequisite: HOEC 303 or consent of instructor.

**HOEC 419. Contract Interiors** (3) I, II. Application of design principles in contract and commercial interiors. Space and facilities planning. Identification of interior equipment to facilitate a particular function. Professional organization of design portfolio for contract employment. Prerequisite: HOEC 319.

**HOEC 421. Parent Education** (3) I, II (even years), I (odd years). Parents as models, educators, advocacy/volunteer and policy roles. Teaching and planning programs on child development, parent-child communication and special needs are included. Prerequisite: junior or senior standing.

**HOEC 422. Cognitive Development of the Young Child** (3) I (odd years), I, II (even years). Contemporary theories of intellectual development of young children; research pertaining to specific concept areas and the development of related experiences. Prerequisite: HOEC 320 or HOEC 321 or consent of instructor.

**HOEC 423. Organization of Programs for Young Children** (3) II. Factors to consider in organization and administration of programs for young children. Prerequisite: HOEC 322 or consent of instructor.

**HOEC 424. Children Under Transitory Stress** (2) I (odd years). Infants' and children's efforts to cope with situational stresses such as illness, hospitalization, death, divorce, separations from family, birth of siblings and illness or disability of parent. Prerequisites: HOEC 320, HOEC 321 or consent of instructor.

**HOEC 425. The Hospitalized Child** (3) I (even years). Analysis, synthesis and integration of theory, research and practice from a multidisciplinary perspective for understanding needs of hospitalized children. Prerequisites: HOEC 320, HOEC 321, or consent of instructor.

**HOEC 426. Studies in Individual and Family Potential** (3)-I, II. Theories of human behavior and family interaction which promote fully functioning individuals and families. Family communication and various patterns of family adjustment to internal and external stress. Prerequisites: HOEC 105 or HOEC 302, or consent of instructor.

**HOEC 427. Facilitation of Individual and Family Potential** (3) II. Development of personal skills and personal awareness which facilitate effective interpersonal-familial and/or professional functioning. Methods of affirming self-esteem, encouraging authentic communications, and stimulating personal growth. Prerequisites: HOEC 105 and HOEC 426 or consent of instructor.

**HOEC 428. Sexuality and the Family** (3) II. Interrelationships of areas of human sexuality and family development/interaction. Intended for students with background in sexual physiology and psycho-social aspects of human sexuality. Prerequisite: PSYC 307 or HED 338.

**HOEC 429. The Family in the Middle and Later Years** (3) II (odd years). The family in the middle and later years, with emphasis on relationship between spouses, and with children and grandchildren. Identification and critical analysis of factors associated with success and problem areas for such families.

**HOEC 431. Experimental Foods** (3) I, II. Experimental methods of quality control and recipe standardization. Scientific reasoning applied to the methods of food preparation. Subjective and objective evaluation of results. Lab fee. Two hours of lecture and three hours of lab. Prerequisites: HOEC 212, CHEM 116 or consent of instructor.

**HOEC 432. Advanced Nutrition** (3) II. Topics in normal nutrition, including nutrients and their interrelationships. Application of nutrition principles in counseling individuals. Analysis of current literature for validity and content. Introduction to nutritional assessment. Two hours of lecture and four hours of lab. Prerequisites: BIOL 332 and CHEM 116.

**HOEC 433. Advanced Food Production Management** (3) II. Management principles and procedures in institutional or commercial food services. Selection, training and supervision of personnel. Food procurement, production and marketing. Clinical practicum. Two hours lecture and three hours of clinical experience. Prerequisite: HOEC 331.

**HOEC 434. Diet Therapy** (4) I. Diseases and dietary modifications they necessitate. Determination of rationale for inclusion or exclusion of specific foods in prescribed diet; clinical dietitian's role. Three hours of lecture and four hours of clinical experience. Prerequisite: HOEC 432.

**HOEC 435. Nutrition for Infants and Young Children** (3) I. Nutrition of infants and children in health and disease, from prenatal period to adolescence. Two hours of lecture and two hours of lab. Prerequisite: HOEC 207 or HOEC 307.

**HOEC 436. Nutrition for the Aging** (3) II. Nutritional needs of the aged. Menu planning, food purchasing and preparation. Psychological, physiological and socio-economic factors affecting dietary practices of the elderly in group and individual situations. Two hours of lecture and two hours of clinical experience. Prerequisites: HOEC 207 or HOEC 307, and BIOL 331 or BIOL 332, or consent of instructor.

**HOEC 470. Independent Study** (1-3) I, II, summer. For advanced students who want to conduct intensive study of selected problems in home economics. For undergraduate credit only. Prerequisite: consent of department chair.

**HOEC 480. Seminar In Home Economics** (1-3) On demand. In-depth examination of topics in home economics not covered by existing course work. Repeatable once. Undergraduate credit only.

**HOEC 489. Internship** (5-12) I, II, summer. Internship in a professional environment. Work settings are approved on an individual basis. May be repeated. Graded S/U.

**HOEC 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

## Humanities (HUM)

**HUM 101. Introduction to the Humanities** (3) II. Experience of art including music, film, theatre, literature, dance, painting, sculpture, architecture, philosophy, and the combined arts.

## Industrial Education (IE)

(See technology)

## Industrial Engineering Technology (INET)

†**INET 122. Industrial Organization and Business Decisions** (3) I, II. Industrial organizations, problem solving, communications, organization structure and theory, profit and loss statements, financial ratios, breakeven charts, balance sheets.

†**INET 131. Operations Analysis** (4) I, II. Emphasis on engineering graphics as pertains to the preparation of flow process charts; man/machine charts, and multiple activity charts.

†**INET 132. Motion Study** (2) I, II. Fundamentals of motion study and its relationship to job descriptions, analysis, and evaluation.

†**INET 133. Statistics for Work Sampling** (1) I, II. Sampling, probability; organizing and analyzing statistical data as related to work sampling.

†**INET 134. Time Study** (4) I, II. Responsibilities of a time study technician and equipment utilized; emphasis on performance, rating, conducting a time study, determining allowances, work sampling.

†**INET 135. Methods-Time Measurement** (2) I, II. Determination of standard data for various jobs; emphasis on time and motion study.

†**INET 136. Methods Study** (2) I, II. Application of principles of a breakeven analysis, motion and time study and standard data to cost estimating. Completion of progress report pertaining to methods study project included.

†**INET 140. Production Control: Concepts and Problems I** (2)-I, II. Production-inventory systems; forecasting and planning for production, scheduling for high volume production, operation sequencing, balancing.

†**INET 141. Production Control: Concepts and Problems II** (3) I, II. Application of logic on production planning, job shop planning control, network planning, scheduling and design of production planning systems.

†**INET 142. Inventory Control** (4) I, II. Organizing and analyzing statistical data, sampling, probability, economic lot and order quantities, inventory costs, inventory control functions.

†INET 143. **Quality Control** (3) I, II. Quality assurance, product reliability; acceptance, attribute, and variable sampling; control charts as related to quality control.

†INET 144. **Cost and Budget Control: Project Planning** (4) I, II. Budget functions, concepts and responsibilities, budget variance analysis. Completion of a production planning project.

†INET 252. **Plant Layout** (3) I, II. Methods utilized in plant layout to determine best relationship between output, space, and manufacturing cost.

†INET 254. **Utilities and Maintenance II** (3) I, II. Plant heating and cooling systems, air control, preventive maintenance, safety, OSHA rules and regulations.

†INET 255. **Material Handling** (3) I, II. Determination of materials handling equipment for fixed and variable path and cost estimating for plant construction. Completion of a facilities planning project required.

†INET 261. **Union-Management Relations** (2) I, II. Development of American unions, methods of communication within an enterprise, collective bargaining, grievance procedures.

†INET 262. **Wage and Salary Administration** (2) I, II. Straight-time and incentive plans, production efficiency, various supplemental plans.

†INET 272. **Social Responsibilities of Business** (2) I, II. Population growth and its impact upon the economy, automation and positive or negative implications of jobs, influence of inflation on upper, middle, and lower class citizens, employer responsibilities to management and labor.

## Industrial Environment Technology (ENVR)

(See technology)

## Insurance (INS)

INS 300. **Principles of Insurance and Risk** (3) I, II, summer. Fundamental insurance and risk concepts; insurance company functions; legal aspects of basic insurance; homeowners property and liability, auto, life, and health coverages. No Prerequisite.

INS 465. **Property and Liability Insurance Coverages** (3) II. Protection provided by and legal aspects of fire, casualty, transportation, workmen's compensation, multiple-lines, and corporate surety-ship insurance coverages. Prerequisite: INS 300 or permission of instructor.

INS 466. **Concepts and Issues in Insurance Company Management** (3) I. Insurance company functions; types of insurance carriers; marketing and underwriting problems; agency/carrier relationships; reinsurance, rate-making, financial analysis, and regulation. Prerequisite: INS 465 or permission of instructor.

INS 467. **Life Insurance** (3) II. Economic and social aspects of life insurance; structure of life insurance and annuity contracts; contract provisions and legal principles; calculation of premiums, reserves, surrender values, dividends; business uses. Prerequisite: INS 300 or permission of instructor.

INS 469. **Group and Social Insurance** (3) I. Group life and health insurance; pension plans; social insurance; integration of group, pension, and social insurance coverages. Prerequisite: INS 467 or permission of instructor.

INS 470. **Risk Management** (3) II. Management of corporate risk through identification, measurement, and control of loss exposures utilizing primarily non-insurance methods. Case problems and supplemental text assignments. Prerequisite: INS 465 or permission of instructor.

INS 491. **Studies in Insurance and Risk Management** (1-3) On demand. In-depth study of selected areas. Offered to individuals on lecture, seminar, or independent study basis depending on student needs and nature of material. May be repeated to six hours. Graded S/U.

## Interpersonal and Public Communication (IPCO)

(See speech communication)

## Italian (ITAL)

Entering students who had Italian in high school should take the placement test during summer preregistration or prior to enrollment in a course.

ITAL 101. **Elementary Language and Culture I** (4) I. Cultural approach to beginning language. Development of the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

ITAL 102. **Elementary Language and Culture II** (4) II. ITAL 101 Continued. Four class periods and laboratory practice each week. Prerequisite: ITAL 101 or one year of Italian in high school.

ITAL 201. **Intermediate Language I** (3) I. Grammar review. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: ITAL 102 or two years of Italian in high school.

ITAL 202. **Intermediate Language II** (3) II. ITAL 201 continued. Three class periods and laboratory practice each week. Prerequisite: ITAL 201 or three years of Italian in high school.

ITAL 261. **The Italian Cinema** (3). Modern Italian culture and literature movements and their expression in cinema; demonstrates close relationship between literature and cinema. In English.

ITAL 351. **Italian Composition and Conversation I** (3). Improvement of oral and written skills; emphasis on composition. Prerequisite: ITAL 202.

ITAL 352. **Italian Composition and Conversation II** (3). Improvement of oral and written skills in the language; emphasis on conversation. Prerequisite: ITAL 202.

ITAL 361. **Introduction to Italian Literature** (3). Chronological evaluation of outstanding works in Italian literature from Middle Ages to present; various movements and genres. Prerequisite: ITAL 202.

ITAL 371. **Italian Civilization I** (3). Political, social, intellectual, artistic life from Middle Ages through 19th century. Background for literary studies and preparation for teaching of Italian. Prerequisite: ITAL 202.

ITAL 372. **Italian Civilization II** (3). ITAL 371 continued; political, social intellectual, artistic life of modern Italy. Prerequisite: ITAL 202.

ITAL 488. **Italian Literature: Advanced Studies** (3). Study of author, literary school, genre, or selected theme. May be repeated to nine hours if topics are clearly different. Prerequisites: ITAL 361 and ITAL 362.

## Japanese (JAPN)

JAPN 101. **Elementary Language and Culture I** (4) I. Introduction to modern spoken Japanese. Four class periods and scheduled oral practice each week.

JAPN 102. **Elementary Language and Culture II** (4) II. JAPN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: JAPN 101, or equivalent.

JAPN 201. **Intermediate Japanese I** (3) I. JAPN 101-102 continued. Conversation, writing, reading, grammar. Three class periods and scheduled oral practice each week. Prerequisite: JAPN 102, or equivalent.

JAPN 202. **Intermediate Japanese II** (3) II. JAPN 201 continued. Three class periods and scheduled oral practice each week. Prerequisite: JAPN 201, or equivalent.

## Journalism (JOUR)

◆ JOUR 103. **Introduction to Mass Communications** (3) I, II, summer. Survey of modern journalism and mass communication; mass communication media and effects; role and influence of newspapers, magazines, radio, television, photography, and related fields of advertising and public relations. Open to non-majors.

JOUR 203. **History of Journalism** (3). English background, development of American mass media from colonial days to present. Historical factors affecting reporting and presentation of news in print and electronic journalism.

JOUR 300. **Introduction to Journalistic Writing** (3) I, II, summer. Practice in the elementary forms of newspaper, magazine, broadcast and public relations writing; emphasis on grammar, spelling, punctuation and sentence structure. Prerequisites for the 1982-83 academic year: completion of at least 30 semester hours of coursework consisting of general education requirements including ENG 112 and JOUR 103. An overall grade point average of 2.7 must have been earned in the aforementioned coursework at the time of admittance into JOUR 300, as well as a minimum grade of "C" in JOUR 103. In addition, students must have passed an English proficiency examination administered by the School of Journalism. This course is reserved for pre-journalism majors and exceptions approved by the School of Journalism. Application for this course must be made at the School of Journalism office, 103 University Hall.

JOUR 302. **Copy Editing** (3) I, II. Theory and practice in editing local and wire news, headline writing, picture editing, evaluating news, layout and design, video display terminal operation. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 303. **Editing Specialized Publications** (3) I, II, summer. Theory and practice of editing functions and techniques in producing specialized publications: magazines, newsletters, newspapers and brochures for business and non-profit organizations. Graphics skills, including electronic typesetting. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 304. **Feature Writing** (3) I, II. Discovering, researching, and writing the newspaper feature story and short magazine article. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.



**JOUR 305. Photojournalism Editing** (3) II. Assignment, selection, preparation and display of photographs for publication, especially in newspapers, magazines and newsletters. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

**JOUR 306. Introduction to Photojournalism** (3) I, II. Function of pictures in newspaper, magazine and television reporting. Practice in picture taking and darkroom procedures. Lecture and laboratory. Student must provide own camera and supplies. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

**JOUR 307. Advanced Photojournalism** (3) I. Practice in advanced problems of photography, including picture stories, and evaluation of photographs for reproduction and communication. Lecture and laboratory. Student must provide own camera and supplies. Prerequisite: "C" or better in JOUR 306.

**JOUR 311. Reporting** (3) I, II. Newsgathering and news writing for all types of news stories ranging from the simple factual story to the complex, specialized story. Practice in covering assignments for publication. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

**JOUR 312. Reporting of Public Affairs** (3) I, II. Field practice in covering governmental and community affairs with attention both to general and specialized areas. Prerequisite: "C" or better in JOUR 311 or 330.

**JOUR 315. Press Management** (3) II. Business problems of publishing — organization, financing, circulation, promotion. Mechanics of publication, various types of reproduction, adaptability of each, comparative costs, related problems. Open to non-majors.

**JOUR 330. Radio/Television News** (3) I, II. Techniques of writing, reporting and editing news for radio and television broadcasting; rewriting wire copy; introduction to ENG shooting and editing techniques; preparation and utilization of television graphics. Student must provide own tape recorder and cassettes. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing. Recommended: broadcast production course (RTVF 262 or 263) and photography course (JOUR 306, RTVF 264 or 464).

**JOUR 331. Advanced Radio/Television News** (3) I, II. Writing, editing and producing the radio and television newscast. Emphasis on ENG shooting and editing; field reporting; producing the newscast in a TV studio; advanced television graphics. Student must provide own videotape cassette. Prerequisite: "C" or better in JOUR 330 and RTVF 262 and 263 plus one photography course (JOUR 306 or RTVF 264 or 464).

**JOUR 340. Principles of Public Relations** (3) I, II, summer. Public relations problems, policies, practices applied to business and non-profit organizations; media methods of communicating, survey research and attitude change. Open to non-majors.

**JOUR 380. Writing for Public Communication** (3) I, II. Public relations writing skills for business and nonprofit organizations. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

**JOUR 402. Journalism Law and Ethics** (3) I, II, summer. Legal concept of freedom of the press, constitutional guarantees, libel, privacy, copyright, broadcast regulation, contempt, obscenity, ethical problems, right to know. Open to non-majors.

**JOUR 403. The Editorial** (3) I. Techniques of persuasive and critical writing and the role of editorial opinion in modern mass media. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

**JOUR 404. Magazine Article Writing** (3) I, II. Searching for story ideas, analyzing magazine markets, researching subject matter, writing and polishing stories. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

**JOUR 407. Color Photography** (3) II. Theory and application of color processes and their limitations and advantages. Production of color transparencies and prints. Prerequisite: "C" or better in JOUR 307.

**JOUR 412. Field Experience** (1-3) I, II, summer. Journalism internship program required of all journalism majors. Activity may be in more than one medium, full or part time, paid or voluntary. One hour required of all majors. Prerequisites: 2.5 JOUR grade point average; 2.5 overall grade point average; junior standing. Graded S/U.

**JOUR 414. Supervision of High School Publications** (3) II. For teachers or prospective teachers of high school journalism or advisers of school newspapers or yearbooks. Problems of editorial supervision, business management and production.

**JOUR 416. Magazine Journalism** (3) I, II. Practices, problems and trends in modern magazine publishing; analysis of editorial objectives, content, audience, format, production and management. Open to non-majors.

**JOUR 423. Introduction to Mass Communication Research** (3) II. Mass communication from the scientific viewpoint. Research techniques in advertising, public relations, newspapers, radio and television. Application of behavioral science research methods to communication research. Open to non-majors.

**JOUR 430. The Documentary** (3) I, II. Research, writing and preparing news, informational and public service features, documentary and magazine-type programs; writing a program treatment and budget; production of a documentary of broadcast quality. Prerequisite: "C" or better in JOUR 331.

**JOUR 431. Interpretive Reporting** (3) I. Research and writing of in-depth reports, interpretive news, profiles, background stories, news analyses. Investigative reporting of current events and issues. Prerequisite: C or better in JOUR 312 or consent of instructor.

**JOUR 432. Newsroom Decision Making** (3) II. Newspaper editorship, goal setting, problem analysis, readership analysis, publication conception and creation, staff management. Prerequisite: senior standing or consent of instructor.

**JOUR 433. Government and the News Media** (3) I. Origins and concept of freedom of information and evolution in constitutional law and judicial decisions; contemporary problems of censorship in publishing, broadcasting and film. Open to non-majors.

**JOUR 435. Press and Society** (3). Press as institution; its role, content, effects and responsibilities as a cultural force in society. Open to non-majors.

**JOUR 440. Public Relations Techniques** (3) I, II. Application of public relations theories, tools and techniques to the public relations campaign. Research, planning and execution are practiced. Prerequisites: senior status and "C" or better in JOUR 303, 340 and JOUR 380.

**JOUR 470. Foreign Press Systems** (3) I. Social, economic and political factors, organization and controls in the national news and informational systems of countries around the world. Open to non-majors.

**JOUR 471. International Media Networks** (3) II. Factors affecting flow of world news and public information; regional and international networks. Open to non-majors.

**JOUR 481. Topics and Problems in Public Relations** (1-3) I, II, summer. Issues and problems that confront public relations practitioners in corporate and non-profit communications programs. Prerequisite: instructor's consent.

**JOUR 490. Special Problems in Journalism** (1-3) I, II, summer. Research problems; practical projects or intensive reading to meet needs of student's special interests. Prerequisite: instructor's consent.

## Latin (LAT)

Entering students who had Latin in high school should take the placement test during summer preregistration or prior to enrollment in a course.

**LAT 101. Elementary Language and Culture I** (4) I. Cultural approach to beginning language. Development of the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

**LAT 102. Elementary Language and Culture II** (4) II. LAT 102 continued. Four class periods and laboratory practice each week. Prerequisite: LAT 101 or one year of Latin in high school.

**LAT 141. Great Greek Minds** (3) I. Masterpieces of Greek literature: Homer, Sappho, Pindar, Aeschylus, Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, Plato, Aristotle. No Greek required. No credit for both LAT 141 and 485.

**LAT 142. Great Roman Minds** (3) II. Masterpieces of Latin literature: Lucretius, Cicero, Catullus, Vergil, Horace, Livy, Ovid, Petronius, Tacitus, Juvenal, Martial. No Latin required. No credit for both LAT 142 and 486.

**LAT 145. Greek and Latin Elements in English** (3). Terms and concepts derived from Greek and Latin occurring in English; designed for premedical, pre dental, prelaw, language, sciences majors.

**LAT 201. Intermediate Language I** (3) I. Grammar review. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: LAT 102 or two years of Latin in high school.

**LAT 202. Intermediate Language II** (3) II. LAT 201 continued. Three class periods and laboratory practice each week. Prerequisite: LAT 201 or three years of Latin in high school.

**LAT 351. Latin Prose Composition I** (3). Latin syntax; emphasis on word order and sentence structure. Prerequisite: LAT 202.

**LAT 352. Latin Prose Composition II** (3). Developing increased ability to understand structural peculiarities of classical Latin. Prerequisite: LAT 351.

**LAT 361. Latin Literature I** (3). Chronological survey of Latin literature into the Golden Age. Prerequisite: LAT 202.

**LAT 362. Latin Literature II** (3). Chronological survey of Latin literature from the Golden Age. Prerequisite: LAT 202.

**LAT 470. Readings in Latin Literature** (1-3) I, II. Advanced reading for students wishing to study special period or great author. Prerequisite: consent of chair of department and instructor.

**LAT 480. Classical Mythology** (3). Study in English of Greek and Roman myths; historical meaning and influence on life, literature, and art. No Latin required.

**LAT 481. Roman Life** (3). Study in English of daily life and customs in Rome as described in literature and attested by history, art, archeology. No Latin required.

**LAT 485. Greek Literature in English** (3) I. Thought and action of ancient Greeks as seen mainly through their literary works. For majors and minors in Latin and other languages and students wanting to fulfill humanities requirement; no Greek required. No credit for both LAT 141 and 485.

**LAT 486. Latin Literature in English** (3) II. Thought and action of ancient Romans as seen mainly through their literary works. Intended for majors or minors in Latin and other languages and for students wanting to fulfill humanities requirement; no Latin required. No credit for both LAT 142 and 486.

## Latin-American Studies (LAS)

**LAS 401. Latin-American Studies Senior Seminar** (3) II. For seniors majoring in Latin American studies and other interested students. Examination of literature, problems of research and writing, discussion of methods. Required of Latin-American studies major.

## Legal Studies (LEGS)

**LEGS 200. Perspectives of American Law** (3) I, II. Thematic case study of family law, property, privacy, torts, criminal law, and other areas which explain social forces that give substance to American law, analysis and reasoning behind court decisions. Prerequisite: 30 hours.

◆ **LEGS 301. General Business Law** (3) I, II, summer. Historical, political, economic background to business law. Origin, development, fundamental of contracts and sales. Economic role of contracts in facilitating goods and services. Prerequisite: junior standing.

**LEGS 302. General Business Law** (3) II, summer. LEGS 301 continued. Law of sales, common carrier, partnerships and corporations, and agency law. Prerequisite: LEGS 301.

**LEGS 305. Comparative Legal Philosophy** (3) I. Legal philosophy and comparative law using legal systems of Western, Communist, and developing countries as models; treatment of commercial obligations and constitutional rights within different legal systems.

**LEGS 310. Law and the Citizen** (3) I. Major social issues of today and how judicial system shapes social policy and reform; consumer protection and other annually selected social issues being adjudicated in courts: discrimination and reverse discrimination, capital punishment, reform of legal system, problems in criminal justice system, freedom of speech and assembly, obscenity and pornography, etc. Prerequisite: junior standing or permission of instructor.

**LEGS 340. Administration of Criminal Justice** (3) II. Legal and sociological perspectives in which police, criminal courts, juries, judges, and correction systems operate. When possible, qualified criminologists assist in teaching.

**LEGS 406. International Legal Transactions** (3) II. Legal problems faced by individual and corporate business persons when operating within international framework. Methods of control of multinational corporate entities, effect of doing business as national or foreign firm, and act of state doctrine relating to expropriation of assets of foreign firm.

**LEGS 413. Trusts and Estates** (3) I. Execution, administration, revocation of wills and trusts, guardianships, life insurance estates; insurance law relating to estates, their protection, and liability; role of wills and trusts in distribution of wealth. Prerequisite: LEGS 301.

**LEGS 414. Liability Law** (3) II. History and development of modern concepts in areas of personality, privacy, product and service liabilities; legal problems in advertising, responsibility to work force, and ecology.

**LEGS 415. Realty Law** (3) II. Creation, acquisition, transfer of realty; deeds and mortgages as security devices and their economic implications; landlord-tenant relations and economic role of leasehold interests.

**LEGS 417. Law of Business Associations** (3) II. Establishing relation of agency, partnership, and corporation and legal incident thereto; fundamentals of Uniform Partnership Act, Model Corporation Act; economic implications as business entities. Prerequisite: LEGS 301.

**LEGS 419. Private Labor Law** (3) I. Federal legislation in defining roles of labor organizations and management as they interrelate in private industry; National Labor Relations, as amended, and 1964 Civil Rights Act, as amended, prohibiting discrimination in employment.

**LEGS 420. Commercial Law** (3) II, summer. Legal environment created by Uniform Commercial Code in transactions involving personal property sales, marketing, advertising, and negotiable instruments; their economic role in facilitating goods and services. Prerequisite: LEGS 301.

**LEGS 421. Administrative Law** (3) II. Regulation of business and policy implications for public; antitrust, trade practices, equal opportunity employment, environmental restraints, public utilities.

**LEGS 425. Health Care Law** (3) I. Public-private constraints in foundation health agencies; experimentation and risk assumption; agency and independent contract liability; reasonable standards of care doctrines; governmental regulations.

**LEGS 429. Employment Discrimination and Affirmative Action Law** (3) II. Federal laws, Ohio laws, Federal Executive Orders #11246, federal regulations interpreting these laws and orders that govern employment decisions in hiring, firing, testing, promotion, demotion, transfers, etc.

**LEGS 431. Environmental Law** (3) II. History and development of modern concepts in environmental law; air, water, land, noise; problems in legal alternatives and tax incentives.

**LEGS 440. Consumer Law** (3). Legal protections available to the consumer; concentrates on federal legislative response to problems and consumer transactions with special focus on relationship between consumer expectations and legal protection of those expectations. Prerequisite: LEGS 301.

**LEGS 491. Studies in Business Law** (1-4) II. In-depth study of selected areas. Offered to individual student on lecture basis or as seminar depending on student needs and nature of material. May be repeated to eight hours.

**LEGS 495. Readings for Honors in Business Law** (1-4) I, II, summer. For student in business administration who wishes to pursue supervised independent program of reading and study. Prerequisite: 3.0 accumulative GPA, consent of department.

## Library and Educational Media (LEM)

**LEM 203. Introduction to Librarianship** (3) I, II, summer. Profession of librarian/information/media specialist; types of library/information/media centers, jobs performed, professional literature and organizations, history of libraries and materials. Lecture; discussion/questioning; role-playing; practicum. C/F hrs.: 16

**LEM 301. Basic Educational Media** (2) I, II, summer. Selection, operation and utilization of common classroom educational media. Lecture; discussion/questioning; problem solving; laboratory; practice/drill. Prerequisite: to follow EDFI 302. C/F hrs.: 16

**LEM 395. Workshop in Educational Media** (1-2) On demand. Study, readings and development of materials to meet the needs of practitioners. Topics vary from offering to offering. May be repeated with consent of adviser. C/F hrs.: varies.

**LEM 403. Reference Services and Materials** (3) II. Basic sources of information and use in providing library/information/media services. Lecture; discussion/questioning; viewing/listening/answering; problem solving. C/F hrs.: 25

**LEM 404. History of Books and Libraries** (2) On Demand. Development of books and libraries from earliest times to the present with emphasis on their roles in the preservation and communication of information. Lecture; discussion/questioning; viewing/listening/answering. C/F hrs.: 4

**LEM 405. Government Publications** (3) I. Nature, use, acquisition, and organization of printed materials issued by federal, state, and local governments and international agencies. Lecture; discussion/questioning; practice/drill; laboratory. Prerequisite: LEM 403 or consent of instructor. C/F hrs.: 17

**LEM 407. Selection of Materials** (3) II. Principles of selection and acquisition of print and nonprint materials. Lecture; discussion/questioning; practice/drill; practicum; role-playing; problem solving. C/F hrs.: 40

**LEM 408. Classification and Cataloging** (3) I. Tools and basic procedures of technical processing and organizing of library/media/information materials. Lecture; discussion/questioning; practice/drill; problem solving; laboratory; practicum. C/F hrs.: 40

**LEM 411. Materials for Secondary School Media Centers** (3) I. Print and nonprint materials and program activities for secondary school media centers. Special needs of adolescents including gifted and retarded. Lecture; discussion/questioning; viewing/listening/answering; problem solving. Prerequisite: 9 hours of LEM courses or consent of instructor. C/F hrs.: 20

**LEM 428. Advanced Utilization of Educational Media** (3) I. Audiovisual materials to motivate, persuade, instruct. Selection, production; use, and evaluation. Lecture; discussion/questioning; viewing/listening/answering; problem solving; laboratory. Prerequisite: LEM 301 or consent of instructor. C/F hrs.: 16

**LEM 430. Preparation of Instructional Materials** (3) II. Planning, designing, and producing instructional materials in terms of stated objectives. Laboratory; practicum; discussion/questioning; problem solving. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 22

**LEM 431. Visual Communication in Instruction** (3) On demand. Role of visual stimuli in teaching/learning environments. Emphasis on instructional drawing. Lecture; practice/drill; problem solving; laboratory. Prerequisite: LEM 301 or consent of instructor. C/F hrs.: 40

**LEM 433. Classroom Television** (3) II. Television as an integral part of the instructional process. Includes equipment operation and selection and basic production techniques. Lecture; practice/drill; viewing/listening/answering; problem solving; laboratory. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 20

**LEM 434. Individualizing Instruction with Educational Media** (3) I. The application of educational technology (equipment, materials, and instructional design techniques) to the conceptual and operational aspects of individualized instruction. Lecture; viewing/listening/answering; problem solving; independent learning/self-instruction. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 20

**LEM 438. Selection, Maintenance and Repair of Media Equipment** (3) On demand. The role of the teacher and media specialist in selection, maintenance and repair of classroom media equipment at building level. Lecture; practice/drill; laboratory; independent learning/self-instruction; problem solving; discovery. Prerequisite: LEM 428 or consent of instructor. C/F hrs.: 20

**LEM 441. Storytelling** (3) I, II. Technique and practice of storytelling in libraries, classrooms, etc. Selection of traditional and modern literature to tell and read aloud. Lecture; practice/drill; viewing/listening/answering; role playing. Prerequisite: ENG 342 or consent of instructor. C/F hrs.: 8

**LEM 450. Media Center in the School** (3) I. Organization and administration of school media centers. Lecture; discussion/questioning; practice/drill; problem solving; practicum; role-playing. Prerequisite: just prior to student teaching. C/F hrs.: 20

**LEM 455. Instructional Media in Industry, Business and Government** (3) I. Selection and utilization of instructional media in non-school settings. Not available for students with credit for LEM 428. Lecture; discussion/questioning; viewing/listening/answering; problem solving; laboratory. Prerequisite: consent of instructor. C/F hrs.: 16

**LEM 490. Problems in Library and Educational Media** (1-3) I, II, summer. Independent study of selected topics. May be repeated to six hours. Prerequisite: consent of instructor. C/F hrs.: varies

**LEM 491. Field Work** (2) I, II, summer. Supervised field work in library, media center, or information service approved by department. May be repeated to 4 hours. Practicum. Prerequisite: consent of instructor. C/F hrs.: varies. Graded S/U.

**LEM 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

**LEM 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

## Linguistics (LING)

**LING 310. Introduction to Linguistics** (3) II. Nature of languages and human communication; principles and procedures for analyzing and describing languages; language change and variation. Prerequisite: sophomore standing.

**LING 490. Special Problems in Linguistics** (2-3) On demand. Theories and applications of linguistics studies or problems in languages, literatures, psychology, speech, and other related fields. Prerequisite: LING 310.

## Management (MGMT)

◆ **MGMT 300. Introduction to Production and Operations Management** (3) I, II, summer. Operations of firm; design of production systems; operation, coordination, and control of production activity; major analytical tools for management. Prerequisite: STAT 212 or equivalent.

◆ **MGMT 305. Principles of Organization and Management** (3) I, II, summer. Fundamentals of organization theory; objectives, policies, decision-making, authority, management development, leadership, communication, motivation, and effective human relations as related to management principles. Not open to business majors.

**MGMT 330. Procurement** (3) I, II, summer. Management of procurement; process of establishing need, source selection, pricing, specifications, negotiation and bidding, quality assurance, value analysis, make or buy, procedures, legal considerations, and computer systems. Related to industrial, governmental, and institutional utilization. Prerequisite: STAT 212 or equivalent.

**MGMT 360. Organizational Theory and Behavior** (3) I, II, summer. Micro-relationships in organizations; historical perspective, changing nature of organizations, and individual and overall group behavior. Prerequisite: STAT 212.

**MGMT 361. Personnel Administration** (3) I, II, summer. Design, organization, and operation of personnel function. Planning manpower needs, developing human resources, appraising performance, developing compensation systems, and compliance with applicable government regulations such as EEO, OSHA, and ERISA. Not open to human resource management majors or to students with credit for MGMT 450 or MGMT 451. Prerequisite: MGMT 305 or MGMT 360.

**MGMT 430. Materials Management** (3) I, II. Conceptual and analytical framework for material management problems. Development and evaluation in depth of materials management system components; facility location, transportation, inventory requirements, materials handling, order processing. Prerequisite: MGMT 300 or permission of instructor.

**MGMT 439. Procurement and Materials Management Problems** (3) II. Capstone course integrating principles from other required courses: lectures, case discussions, simulations, and research projects. Prerequisite: MGMT 330 or 430.

**MGMT 441. Production Process Design** (3) I, II. Effective design of production transformation process. Product decision, process selection, and capacity-related issues. Macro-processing modes and attendant problem areas such as layout of production facilities, project management, and line balancing; microprocessing aspects such as work design and measurement. Quality control and safety. Prerequisite: MGMT 300.

**MGMT 442. Inventory Systems Planning** (3) I, II. Forecasting methods for output requirements. Traditional theories and techniques of inventory control. Current inventory methodology such as material requirements planning; broad range of inventory control problems. Prerequisite: MGMT 300.

**MGMT 445. Production Planning and Scheduling** (3) I, II. Short range production scheduling such as job/flow shop scheduling and maintenance scheduling; intermediate range scheduling such as aggregate planning and master scheduling; long term scheduling such as capacity control. Prerequisite: MGMT 300.

**MGMT 449. Problems in Production and Operations Management** (3) II. Integrates all principles, theories, and techniques gained from previous courses into broad perspective. Case study, simulation, and team projects/presentations. Prerequisites: any two of MGMT 441, 442 and 445.

**MGMT 450. Human Resource Management I** (3) I. Concepts and skills involved in staffing, appraisal, placement, training, development, and compliance with applicable governmental regulations including EEO. Prerequisite: MGMT 360.

**MGMT 451. Human Resource Management II** (3) II. Concepts and skills required in job evaluation, wage and salary administration, health and safety, and compliance with applicable governmental regulations, including OSHA and ERISA. Prerequisite: MGMT 360.

**MGMT 461. Advanced Organization Theory and Behavior I** (3) I, II, summer. Individual and interpersonal variables which influence organizational behavior, motivation theory, personality theory, interpersonal processes, and helping relationship. Prerequisite: MGMT 360.

**MGMT 463. Advanced Theory and Behavior II** (3) I, II. Group and organizational variables which influence organizational behavior, group development and behavior, organizational design, and organizational processes. Prerequisite: MGMT 360.

**MGMT 465. Organization Development Theory and Technology** (3) I. Theory and technology of organization development; history, philosophy, process and major technology of organization development; the consulting process and the diagnostic methodology used in organization development. Prerequisite: MGMT 360.

**MGMT 468. Organization Development Field Experience** (3) II. An integrative and applied course designed to allow students to develop and apply skills in diagnosing organizations, designing interventions and carrying out change in organizations. Prerequisite: MGMT 465.

**MGMT 489. Internship** (1-3) I, summer. Experience in approved business position. Student participates in seminar to formally evaluate work experience. Must be arranged in advance and approved by coordinator. Work experience must be completed within one year of acceptance into program. Not open to students with credit from any similar program in College of Business Administration. Graded S/U.

**MGMT 491. Studies in Management** (1-3) On demand. Selected areas not covered by existing courses but which are developing rapidly as important parts of discipline. Offered to individual on lecture basis or in seminar, depending on student need and course content. May be repeated to six hours.

**MGMT 495. Readings for Honors in Management** (1-3) I, II, summer. For superior student who desires individual reading program to broaden knowledge of management literature on semi-independent basis. Prerequisite: academic standing in upper 20 percent of class.

## Management Information Systems (MIS)

◆ **MIS 200. Introduction to Management Information Systems** (3) I, II, summer. Principles of computer systems, role of information systems in organizations; introduction to information systems theory. Computer programming in BASIC using microcomputers.

**MIS 360. Computer Based Systems** (3) I. Introduction to the concept of a system and to system design process; emphasis on application to the computerized information system. Prerequisite: MIS 200.

**MIS 371. Systems Analysis** (3) II. Concepts and methods of systems analysis; design of a computer based systems project; development and management of a systems department. Prerequisites: CS 260 and 360, MIS 200, MGMT 300 or concurrent registration in MGMT 300.

**MIS 472. Contemporary Topics in MIS** (3) I. Topics shift as business utilization of computers evolves. See instructor for current content. Prerequisite: MIS 371.

**MIS 474. Cases in Management Information Systems** (3) II. Information systems in an action case approach. Prerequisite: MIS 472.

**MIS 491. Studies in Management Information Systems** (1-3) On demand. Selected areas or contemporary problems. May be repeated. May be offered individually as well as in classes depending on student needs and nature of material. Prerequisite: approval of department.

## Manufacturing Technology (MFG)

(See technology)

## Marketing (MKT)

◆ **MKT 300. Principles of Marketing Management** (3) I, II, summer. Managerial decision making in marketing; topics include institutional framework of retail and industrial markets; buyer behavior; forecasting demand; product, promotion, pricing and distribution strategies; planning and control systems. Prerequisites: any ECON course and any ACCT course and MATH 127 or 124 or a higher level MATH course.

**MKT 400. Topics in Marketing** (1-3) I, II. Selected areas not covered by existing courses but which are developing as important part of marketing. Offered on lecture basis or in seminar, depending on student needs and course content. May be repeated to 6 hours. Prerequisites: MKT 300 and permission of department chair.

**MKT 402. Buyer Behavior** (3) I, II, summer. Pertinent theoretical and empirical findings about buying (consumer, industrial and institutional) behavior; topics include attitude formation and change; motivation; personality; social/cultural forces; and concepts underlying strategies of market segmentation and positioning. Prerequisite: MKT 300.

**MKT 410. Principles of Advertising and Promotion** (3) I, II, summer. Theory and decision making in advertising and promotion. Topics relate to the promotional mix from a manager's point of view, including decisions about promotional campaign design, budgeting, message and media selection, and measurement of effectiveness. Prerequisite: MKT 300.

**MKT 411. Creative Strategies and Tactics in Advertising** (3) I, II. The creative process applied to advertising and promotion. Theory and practice of creative aspects of advertising strategy development and tactical implementation: copy, layout, and production. Prerequisites: MKT 300 and MKT 410.

**MKT 412. Managerial Problems in Advertising** (3) I, II. Case studies evaluating opportunities for effective advertising program development and implementation. Experience will be gained in making actual decisions regarding: the setting of objectives; campaign design; budget allocation; message and media selection. Prerequisites: MKT 300 and MKT 410.

**MKT 420. Marketing Research** (3) I, II, summer. Marketing research as a source of information relevant to solving marketing problems. Technical aspects of research are related to management's ability to judge soundness of research proposals and evaluate research findings. Prerequisites: STAT 212 and MKT 300.

**MKT 421. Advanced Marketing Research** (3) II. Application of research principles to solve marketing problems. Research projects are designed, implemented and completed. Topics include: sampling; sample design; questionnaire construction; data collection, tabulation and analysis. Prerequisites: STAT 212 and MKT 300 and MKT 420.

**MKT 430. Retailing** (3) I, II, summer. Evolution, organization, and operation of retailing. Prerequisite: MKT 300.

**MKT 436. Retail Merchandising** (3) I, II. Merchandising functions: buying, selling. Merchandise planning, budgeting, procuring, pricing; sales promotion, inventory evaluation, cost analysis, and control. Prerequisites: MKT 300 and MKT 410 and MKT 430.

**MKT 442. Selling and Sales Management** (3) I, II, summer. Theory and principles of selling; role playing. Theory and practices of sales force administration for manufacturing and wholesaling enterprises. Topics include: recruiting; training; compensation; sales force size and design; performance appraisal. Prerequisites: MKT 300 and MKT 402.

**MKT 460. Strategic Marketing** (3) I, II. Strategic planning is explored in terms of marketing strategy development per se and its relationship to corporate-wide planning. Topics include: product/market planning strategies; and strategy-related tools and models. Prerequisites: MKT 300 and MKT 420.

**MKT 489. Marketing Internship** (1-2) I. Work in approved business position; credit determined by quality and extent of work experience. Not open to freshmen and sophomores, or to students with credit for ACCT 489 or BA 489 or MGMT 489. Prerequisites: MKT 300 and permission of department chair. Graded S/U.

**MKT 495. Reading for Honors in Marketing** (1-3) I, II. For superior student who wishes individual reading program or independent research experience with guidance from an appropriate advisor. Prerequisites: academic standing in upper 20 percent of class and permission of instructor.

## Mathematics and Statistics (MATH)

See placement guidelines on page 176.

**MATH 095. Intermediate Algebra** (5) I, II, summer. Rational and real numbers; polynomials, factoring, and rational algebraic operations; basic geometric concepts; linear equations, quadratic equations, systems of linear equations; graphing; inequalities and sets; integer exponents and radical expressions. Credit cannot be applied towards any baccalaureate degree program. Under ordinary circumstances, students with two years of high school algebra would not need this course. Additional fee: \$20. Graded S/U.

**MATH 096. Intermediate Algebra** (3) I, II, summer. Polynomials, factoring, rational algebraic operations; linear equations, quadratic equations, systems of linear equations; graphing; inequalities and sets; integer exponents and radical expressions. Credit cannot be applied towards any baccalaureate degree program. Under ordinary circumstances, students with two years of high school algebra would not need this course. Ordinarily not taken by students who have taken MATH 095. Additional fee: \$20. Graded S/U.

◆ **MATH 115. Introduction to Statistics** (3) I, II, summer. Description of data, binomial and normal distributions, estimation and testing of hypotheses for means and proportions. Prerequisite: three years of high school mathematics and satisfactory placement exam score or satisfactory completion of MATH 095 or 096.

**MATH 116. Introduction to Statistics II** (3) II. MATH 115 continued. Nonparametric methods; linear regression and correlation; analysis of variance. Prerequisite: MATH 115 or consent of instructor.

◆ **MATH 121. Topics in Modern Mathematics** (3) I, II. Language of sets, introductory logic, number systems, other topics. Not intended for improvement of algebra skills. Students needing additional preparation in algebra should take MATH 095 or MATH 096. Not open to students with credit for any college mathematics course. Prerequisite: one year of high school algebra.

- ◆ **MATH 124. Basic Calculus I** (4) I, II, summer. Polynomials, factoring, radicals and rational exponents; linear and quadratic equations and inequalities; graphs; differential calculus for rational functions with applications. Not intended for students in physical sciences. Not open to students with grade of C or better in MATH 131. MATH 124-125 is a concept-oriented calculus and matrix algebra sequence for students in social sciences, business and other areas who are not eligible for MATH 131, but who need preparation for mathematically oriented courses in their fields. Prerequisite: satisfactory placement exam score; or satisfactory completion of MATH 095 or 096.
- ◆ **MATH 125. Basic Calculus II** (4) I, II, summer. Integral calculus, exponential and logarithm functions, partial derivatives, and matrix algebra. Prerequisite: C or higher in MATH 124.
- MATH 127. Elementary Functions** (3) I, II, summer. Polynomials, factoring, radicals, rational exponents; linear and quadratic equations and inequalities, applications; polynomial, exponential and logarithmic functions and their graphs; systems of equations; theory of equations. Not to be taken if credit for MATH 128 or 130 has been received. Prerequisite: grade of S in MATH 095 or MATH 096, or two years of high school algebra, one year of high school geometry, and a satisfactory placement exam score.
- MATH 128. Precalculus Mathematics** (5) I, II, summer. Polynomials, factoring, radicals, rational exponents; linear and quadratic equations and inequalities, applications; polynomial, exponential, logarithmic and trigonometric functions and their graphs; trigonometric equations; systems of equations; complex numbers; theory of equations. Not to be taken if credit for either MATH 127, 129 or 130 has been received. Prerequisite: grade of S in MATH 095 or 096, or two years of high school algebra, one year of high school geometry, and a satisfactory placement exam score.
- MATH 129. Trigonometry** (2) I, II. Trigonometric functions, graphs, identities, equations, inverse functions, solution of triangles, complex numbers. Intended for students who have good preparation in algebra and geometry but lack knowledge of trigonometry. Not to be taken if credit for MATH 128 or 130 has been received. Prerequisite: C or higher in MATH 127 or two years of high school algebra, one year of high school geometry, and satisfactory placement exam score.
- ◆ **MATH 130. Precalculus Mathematics** (3) I, II, summer. Theory of equations, coordinate geometry; exponential, logarithmic, and trigonometric functions, applications. Overlaps with content of MATH 128 and 129. Not to be taken if credit for MATH 128 or 129 has been received. Prerequisites: two years of high school algebra, one year of high school geometry, and a satisfactory placement exam score.
- ◆ **MATH 131. Calculus and Analytic Geometry I** (5) I, II, summer. Differential and integral calculus including applications of the logarithmic and exponential functions. The MATH 131-232-233 sequence is a traditional calculus course for well-prepared students and is prerequisite for all advanced mathematics and statistics courses. Prerequisites: (1) two years of high school algebra, one year of geometry, one-half year of trigonometry, ACT math score of 24 or higher, and satisfactory score on departmental placement test; or (2) satisfactory completion of MATH 128, 129, or 130.
- ◆ **MATH 222. Discrete Mathematics** (3) I, II. Logic, set theory, elementary combinatorics, finite probability, vectors, matrices, and applications. Prerequisite: grade of C or higher in MATH 131 or 125.
- ◆ **MATH 226. Mathematics of Finance** (3) II. Simple and compound interest, ordinary annuities, amortization, sinking funds, bonds, life annuities, life insurance. Prerequisite: grade of C or higher in MATH 125 or 131.
- ◆ **MATH 232. Calculus and Analytic Geometry II** (5) I, II, summer. MATH 131 continued. Techniques of integration, conic sections, analytic geometry; differentiation and integration of functions of several variables. Prerequisite: Grade of C or higher in MATH 131.
- ◆ **MATH 233. Calculus and Analytic Geometry III** (3) I, II. MATH 232 continued. Vector analysis, Taylor's theorem, L'Hospital's rule, improper integrals, infinite series. Topics from differential equations. Prerequisite: grade of C or higher in MATH 232.
- ◆ **MATH 241. Mathematics for Elementary Teachers I** (3) I, II, summer. Numeration systems, set theoretic development of the whole number system, systems of integers and rationals, number theory. Open only to elementary and special education majors. Prerequisite: satisfactory placement exam score.
- ◆ **MATH 242. Mathematics for Elementary Teachers II** (3) I, II, summer. MATH 241 continued. The real number systems, informal geometry, basic probability. Open only to elementary and special education majors. Prerequisite: grade of C or higher in MATH 241.
- ◆ **MATH 243. Mathematics for Elementary Teachers** (4) I. A fast-paced treatment of MATH 241 and 242 for well-prepared, mathematically inclined students only. Open only to elementary and special education majors. Prerequisite: placement in MATH 243 by placement exam and permission of instructor. Not open to students who have taken MATH 241 or 242.
- ◆ **MATH 247. Fundamentals of Statistical Inference** (3). Discrete probability models, random variables and distribution functions, sampling theory, problems in statistical inference. Prerequisite: grade of C or higher in MATH 125 or 131.
- ◆ **MATH 295. Honors Course in Mathematics** (1). Series of lectures by various department members surveying major areas of mathematics. To be taken after completion of MATH 232. Prerequisite: invitation of department.
- MATH 299. Semester Transition Course** (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.
- MATH 311. History of Mathematics** (3). History through calculus. Prerequisite or corequisite: MATH 332.
- MATH 313. Elementary Mathematical Logic** (3) I. Propositional and predicate logic; nature of mathematical proof; applications to mathematics and computer science. Not open to students with credit for CS 313.
- ◆ **MATH 332. Elementary Linear Algebra** (3) I, II. Systems of linear equations, vectors, matrices, determinants, linear transformations, vector spaces, and applications. Techniques and some proofs. Prerequisite: MATH 232.
- ◆ **MATH 337. Differential Equations** (3). Equations of first, second, and higher order; linear equations with constant coefficients; series solutions; Laplace transform; numerical methods and applications. Prerequisites: MATH 233 and MATH 332.
- MATH 339. Fundamental Concepts of Modern Algebra** (3). Introduction to modern algebra. Elementary properties of groups, rings, integral domains, and fields. Divisibility properties of integers, construction of rational numbers. Prerequisite: MATH 332 or consent of instructor.
- MATH 350. Numerical Calculus** (3). Basic numerical algorithms for computer use, polynomial interpolation, quadrature, solution of nonlinear equations and linear systems. Not open to student with credit for CS 350. Prerequisites: CS 101, MATH 233, and MATH 332.
- ◆ **MATH 395. Honors Course In Mathematics** (1). A choice of two experiences: (1) a problem solving seminar, or (2) use of the mathematics library to conduct a search for articles related to a selected topic. Prerequisite: invitation of department.
- MATH 400. Topics in Mathematics** (3). Selected topics in mathematics not included in existing courses. May be taken twice for credit. Prerequisite: consent of instructor.
- MATH 401. Number Theory** (3). Divisibility, prime numbers, congruences, prime modulus, quadratic residues, quadratic reciprocity law; numerical functions, factorization of integers, elementary diophantine equations, and applications. Prerequisite: MATH 339.
- MATH 402. Modern Geometry** (3) I. Axiomatic development of neutral and Euclidean geometry. Introduction to non-Euclidean geometry. Prerequisite: MATH 339.
- MATH 403. Modern Algebra I** (3). Topics from groups, normal subgroups, homomorphisms, theorems of Lagrange and Cayley, rings, ideals, Euclidean domains, abstract vector spaces. Prerequisite: MATH 339.
- MATH 404. Modern Algebra II** (3). Continuation of topics from MATH 403. Prerequisite: MATH 403.
- MATH 405. Projective Geometry** (3). Algebraic techniques to study projective properties of geometric configurations and plane curves, principle of duality, projective transformations, cross ratios, intersection theory, and classical theorems. Prerequisite: MATH 339.
- ◆ **MATH 414. Advanced Mathematics for Elementary Teachers** (5) II. History of elementary mathematics, infinite sets, non-Euclidean geometry, and other selected topics. Prerequisite: grade of C or better in MATH 242 or 243.
- MATH 421. Foundations of Mathematics I** (3) II. Logic; set theory (including informal discussion of infinite sets and cardinals); axiomatic method (including models, consistency, and independence). Prerequisite: MATH 339 or consent of instructor.
- MATH 422. Foundations of Mathematics II** (3). Topics in the foundations of mathematics. Prerequisite: MATH 421, 313, or consent of instructor.

◆◆◆ Upon invitation from faculty, student may undertake honors program in mathematics. Open to majors whose performance in analytic geometry and calculus has indicated an interest in mathematics and probable success. Graduation with honors in mathematics requires completion of course of study planned by the student and the department honors committee, and approval by department. One such program would be outstanding performance in MATH 295 and MATH 395 and completion of MATH 495. Participation is voluntary and may be discontinued without prejudice.

◆◆◆ For education credit only.



**MATH 426. Mathematics of Life Contingencies (3) II.** The mathematics of pensions and annuities, single life functions, measurement of mortality, net level premium reserves, multi-life functions, joint life probabilities, last survivor and general multi-life functions. Prerequisite: MATH 226 or consent of instructor.

**MATH 430. Advanced Calculus (3).** Infinite sequences and series, uniform convergence, improper integrals, partial derivatives, Jacobians, change of variables, and optimization. Prerequisite: MATH 233.

**MATH 432. Linear Algebra with Applications (3).** Matrices and vector spaces, eigenvalues, orthogonal matrices, positive definite matrices, quadratic forms. Possible applications: differential equations, Markov chains, least squares. Prerequisite: MATH 332 or consent of instructor.

**MATH 434. Vector Calculus (3).** Differential calculus of vector functions, inverse and implicit function theorems, line and surface integrals, theorems of Green, Gauss, and Stokes. Prerequisites: MATH 233 and 332.

**MATH 437. Qualitative Theory of Differential Equations (3).** Existence theorems for linear and nonlinear equations, systems of first order linear equations, nonlinear equations and stability, applications. Prerequisite: MATH 337.

**MATH 439. Boundary Value Problems of Differential Equations (3).** Boundary value problems, Sturm-Liouville theory, singular boundary conditions, Fourier series, partial differential equations of mathematical physics, e.g., heat, wave, and Laplace's equation in one and several dimensions. Applications. Prerequisite: MATH 337.

**MATH 441. Probability and Statistics I (4).** Probability spaces, discrete and continuous random variables and their distributions, expected value, and Central Limit Theorem, sampling distributions, estimation of parameters, and tests of hypotheses. Prerequisite or corequisite: MATH 233.

**MATH 442. Probability and Statistics II (4).** MATH 441 continued. Maximum likelihood estimation, Neyman-Pearson lemma, most powerful tests, class data, regression analysis, nonparametric statistics. Prerequisites: MATH 441 and 332.

**MATH 445. Applied Probability (3).** Probability models for applications, finite Markov chains, queueing systems, Poisson process, applications to genetics, diffusion, computer systems. Prerequisites: MATH 332 and 441.

**MATH 451. Numerical Analysis (3) I.** Development of numerical methods which are efficient, accurate, and suitable for high-speed digital computation, zeros of polynomial and transcendental functions, numerical differentiation and integration, solution of linear systems by direct and by iterative methods, matrix inversion, selected algorithms programmed for solution on computer. Prerequisites: MATH 332 and programming experience. Not open to students with credit for CS 451.

**MATH 452. Numerical Analysis (3) II.** Computation of eigenvalues and eigenvectors of matrices, least squares and approximation, numerical solution of initial value and boundary value problems in ordinary differential equations. Topics from: spline, trigonometric, and Chebyshev approximation, numerical solution of partial differential equations, and optimization techniques. Prerequisites: MATH 337 and programming experience. Not open to students with credit for CS 452.

**MATH 461. Introduction to Complex Analysis (3).** Complex numbers, complex valued functions, differentiation of complex valued functions, analytic functions, power series, integration, contour integrals, residues and poles, conformal mapping, applications. Prerequisite: MATH 334, 465, consent of instructor.

**MATH 465. Introduction to Real Analysis (3) I.** Sets, functions, and properties of real numbers, numerical sequences and series, limits, continuity, uniform continuity for real functions, differentiation and Riemann integration. Prerequisite: MATH 233.

**MATH 470. Readings in Mathematics (1-3).** Independent study of a topic of particular interest to an advanced student under the direction of a faculty member. May be repeated. Prerequisite: consent of instructor and chair of department.

**MATH 489. Internship (1-3).** Internship for majors in mathematics or statistics in the cooperative education program. Written report required. May be repeated with permission. Does not apply towards major or minor. Prerequisite: permission of department. Graded S/U.

**\*\*\*MATH 495. Honors Course in Mathematics (1).** Directed study in some field of mathematics; preparation and presentation of research topic. To be taken concurrently with two or more hours of MATH 470. Prerequisite: invitation of department.

## Medical Record Administration (MRA)

**MRA 101. Introduction to Health Professions (1) I, II.** Survey of health professions and function of health care personnel within these professions. Graded S/U.

**MRA 300. Topics in Medical Record Administration (1-3)** On demand. Courses which are being considered for offering on a regular basis. May be repeated.

**MRA 301. Medical Terminology (2) I, II.** Vocabulary and terms used by medical personnel: prefixes, suffixes, word roots and their combining forms, usage and spelling; specialized terms by body systems. Prerequisite: sophomore standing.

**MRA 401. Medical Record Science V (3) I.** History and development of patient information systems. Analysis of medical record development, content, format, quantitative and qualitative evaluation; health care information retention, storage, and retrieval systems. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

**MRA 402. Medical Record Science VI (3) I.** Review of disease and operation classification systems and use of manual and computerized medical information indexing and registry systems. Statistical reporting in the medical record department. Computation, presentation and analysis of related statistics. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

**MRA 403. Medical Record Science VII (2) II.** Legal aspects of medical records. Analysis of medical record as legal document; medical and legal requirements of health care delivery system; and confidentiality and release of medical information. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

**MRA 404. Medical Record Science VIII (3) II.** Planning, staffing, actuating and controlling a medical care information system by use of systems analysis techniques. Application of principles through management processes. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

**MRA 410. Seminar - Trends in Medical Record Administration (1) II.** Discussion of topics, trends, constraints affecting the profession. Supplemented by directed practice experience, articles, and case studies. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

**MRA 489. Directed Practicum (3) II.** On-site management experience in a health care facility medical record department under the direction of a medical record administrator with emphasis on management of health information systems and personnel. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

## Medical Record Technology (MRT)

†**MRT 100. Medical Record Science I (4) I.** Historical development of medicine, hospitals, and medical record profession. Basic functions of medical record department; filing, numbering systems; retention; forms design and control; standards for, development of medical records; analysis of record deficiencies; records in ECF's. Four hour lecture and assigned lab. Prerequisite: permission of instructor.

†**MRT 101. Medical Terminology (3) I.** Vocabulary and terms used by medical personnel; prefixes, suffixes, word roots, and their combining forms, usage, spelling, and pronunciation; specialized terms within body systems and medical specialties. Three hour lecture.

†**MRT 102. Medical Transcription (3) II.** Skill in use of transcription equipment and expansion of medical terminology and typing accuracy and speed. Practice in typing medical, operative, clinical summary, laboratory, history, physical, and admission reports. One hour lecture and five hours lab. Prerequisites: MRT 101 and typing proficiency as indicated with a grade of "C" or better in BUSE 111 or equivalency.

†**MRT 112. Medical Record Science II (3) II.** Coding, classifying, and indexing data according to ICD-9-CM; registers and indexes generated and requirements for their maintenance. Abstraction of medical data from patient records and introduction to computerization. Three hours lecture and one hour lab. Prerequisite

†**MRT 201. Medical Record Directed Practice (2) I, II.** Application of medical record theory to actual practice through a supervised learning experience in an assigned clinical setting under the instruction of a professional medical record practitioner. 24 hours lab. No remuneration; see policy on transportation and uniforms. May be repeated up to 4 credits. Prerequisite: permission of instructor.

†**MRT 204. Pathophysiology (4) II.** Disordered human functions and systems; language, causes, and types of diseases; diseases of the body systems, each described in terms of its etiology, pathology, symptoms, and treatment. Four hours lecture. Prerequisites: BIOL 104, 331, and 332.



†**MRT 211. Medical Record Science III** (4) I. Health, hospital, statistics; medical care evaluation studies and utilization review with PSRO and JCAH standards; hospital libraries, tumor registries, and admitting procedures; principles and roles in management; problem oriented medical record; and current topics in medical records. Four hours lecture and assigned lab. Prerequisite: MRT 112.

†**MRT 212. Medical Record Science IV** (1) II. The medical record as legal document; confidential communication; consents and authorizations for release of medical information. Three hours lecture, five weeks. Will immediately precede MRT 201. Prerequisite: MRT 211.

†**MRT 290. Topics in Medical Record Technology** (1-3) I, II. Medical record technology projects, workshops, and seminars dealing with current topics not covered in existing courses. Prerequisite: permission of instructor.

†**MRT 291. Field Experience** (3) I, II, summer. Fifteen weeks of paid field work in a medical record department under supervision of Registered Record Administrator or Accredited Record Technician. Prerequisite: permission of instructor.

### Medical Technology (MEDT)

**MEDT 301. Orientation to the Profession of Medical Technology** (1) I, II. Professional aspects of medical technology as part of health care team; ethics, responsibilities, and laboratory administration. One three-hour laboratory/discussion.

**MEDT 411. Diagnostic Immunology I** (1) II. Theory of clinical immunology related to humoral and cellular immunity in health and disease states. Two 75-minute lectures per week. Prerequisites: BIOL 439 and permission of instructor.

**MEDT 412. Diagnostic Immunology I Laboratory** (1) II. Laboratory application and testing related to humoral and cellular immunity in disease states. One three-hour laboratory. Prerequisites: BIOL 439 and permission of instructor.

**MEDT 413. Immunohematology I** (2) I. Theory of human blood groups, compatibility testing, detection and identification of antibodies, blood collection/storage, management of transfusion service. Two 75-minute and one 50-minute lecture. Prerequisites: BIOL 439 and permission of instructor.

**MEDT 414. Immunohematology I Laboratory** (1) I. Laboratory application and testing of human blood groups, compatibility testing, detection and identification of antibodies. Two three-hour laboratories. Prerequisites: BIOL 439 and permission of instructor.

**MEDT 421. Hematology I** (3) I. Origin, regulation; morphology and function of blood cells in health and disease. Congenital and acquired hematologic aberrations. Two lectures. Prerequisite: BIOL 332 or equivalent.

**MEDT 422. Hematology I Laboratory** (1) I. Diagnostic laboratory procedures applied to qualitative and quantitative evaluation of blood cells. Two two-hour laboratories. Prerequisites: BIOL 332 or equivalent and permission of instructor.

**MEDT 423. Hematology II** (1) Summer. Mechanism of hemostasis in health and hemorrhagic and thrombotic disease. Blood cell morphology. One three-hour laboratory. One lecture and one two-hour laboratory. Prerequisite: MEDT 421.

**MEDT 441. Clinical Chemistry I** (4) I. Theoretical principles of analysis of chemical constituents of body fluids in normal and disease states. Three lectures. Two 75-minute and one 50-minute lecture. Prerequisites: CHEM 308-309 and CHEM 201 and PHYS 201.

**MEDT 442. Clinical Chemistry I Laboratory** (1) I. Methods, instrumentation and techniques of clinical chemistry through experiments, problems and demonstrations. Two three-hour laboratories. Prerequisites: CHEM 308-309 and CHEM 201 and PHYS 201 and permission of instructor. MEDT 441 recommended.

**MEDT 451. Analysis of Body Fluids** (1) I. Physiology of urinary system and related diseases. Methods of detection of chemical and cellular elements of urine, cerebral spinal fluid, amniotic fluid, seminal fluid and synovial and other miscellaneous body cavity fluids. One lecture and one three-hour laboratory. One lecture and one laboratory. Prerequisites: BIOL 411 or equivalent. MEDT 441 and 442 recommended.

**MEDT 452. Clinical Microbiology I** (4) I. Isolation and identification of pathogenic bacteria and fungi from clinical specimens. Recovery and identification of human parasites. Antibiotic sensitivity studies. Three lectures and two three-hour laboratories. Prerequisites: BIOL 426 or equivalent and permission of instructor.

**MEDT 453. Clinical Bacteriology II** (2) II, summer. MEDT 452 continued; emphasis on application. Nine weeks full-time instruction and practice. Prerequisites: BIOL 426, grade of "C" or better in MEDT 452, and permission of instructor.

**MEDT 457. Immunohematology II** (1) II. MEDT 413 and MEDT 414 continued; emphasis on clinical application. Four weeks full-time instruction and practice. Prerequisites: MEDT 413 and MEDT 414 with a grade of "C" or better and permission of instructor.

**MEDT 460. Hematology III** (2) II. Continuation of Phase I hematology sequence with emphasis on clinical application and hospital laboratory instrumentation. Five weeks full-time instruction and practice. Prerequisites: grade of "C" or better in MEDT 421, 422, and 461 and permission of instructor.

**MEDT 463. Clinical Chemistry II** (4) II, summer. Continuation of MEDT 441 and 442; emphasis on clinical application. Twelve weeks full-time instruction and practice. Prerequisites: MEDT 441, 442 and 464 and permission of instructor.

**MEDT 465. Clinical Studies** (1) II. Orientation to all clinical laboratory departments and procedures. Laboratory supervision and management. One week full-time orientation and instruction in hospital procedures. Prerequisite: permission of instructor.

**MEDT 466. Laboratory Management and Personnel Practices II** (1) II. MEDT 465 continued; problem solving and application. One lecture per week. Prerequisite: permission of instructor.

**MEDT 470. Research and Special Topics** (1-3) I, II, summer. May be repeated to maximum 3 credits. Research techniques: literature search, experimental design, critical reading. Paper required on selected problem. Prerequisite: permission of instructor. Graded S/U.

### Military Science (MILS)

**MILS 101. ROTC and the National Defense Organization** (2) I, II. History, organization, programs, benefits and objectives of Army ROTC. Organization and functions of national defense establishment, with emphasis on the role of the US Army. No military obligation or prerequisites. Freshmen and sophomores only.

**MILS 102. Rappelling/Practical Skills** (2) I, II. Understanding and application of rappelling, rifle and pistol marksmanship, and basic map reading skills (integrated use of map and compass; terrain evaluation). No military obligation or prerequisites. Freshmen and sophomores only.

**MILS 201. Individual/Organizational Leadership** (2) I, II. Leadership principles and styles; application of leadership to influence individual and organizational conflict resolution and goal achievement; contemporary military leadership issues and their corresponding applications within organizations. No military obligation or prerequisites.

**MILS 301. Ethics and Professionalism** (3) I. Ethics, motivation and professionalism required of the US Army Officer. Principles, methods and techniques fundamental to military instruction. Role of branches of the Army, and discussion of military functional specialties. Prerequisite: department permission and completion of one of the following: ROTC basic course at BGSU; ROTC Basic Camp at Fort Knox, KY; prior active duty service; JROTC.

**MILS 302. Small Unit Operations** (3) II. Organization and employment of basic military team. Squad and platoon-level tactical operations. Progressive leadership development through application of tactical principles. Prerequisite: department permission.

**MILS 401. American Military History** (3) I. Development of American military institutions, policies, strategy, and tactics from the American Revolution to present. Progressive training in leadership. Lecture material by Department of History. Not open to students with credit in HIST 301. Prerequisite: department permission.

**MILS 402. Management Simulation Program** (2) I, II. Principles, methods, techniques of decision making and management with practical experience through case application. Duties and responsibilities of junior leaders. No military obligation or prerequisites.

**MILS 403. Unit Management and Military Law** (3) II. Concepts and fundamentals of Army administrative, supply, material readiness and military justice systems. Organization of the US Army Division and duties and responsibilities required of the Second Lieutenant to effectively manage the small unit. Prerequisite: department permission.

**MILS 470. Studies in Military Science** (1-3) On demand. Detailed study of selected military subjects. Offered on lecture basis, in seminar, or independent study depending on students' needs and nature of material. May be repeated to six hours. Prerequisite: consent of instructor.

## Music Composition and History (MUCH)

### MUCH 100. Small Ensembles (1) I, II.

Collegium Musicum of College of Musical Arts offered under supervision of Composition/History Department. For freshmen or sophomores. May be repeated. Following small ensembles offered: Renaissance Ensemble, Baroque Ensemble, Indonesian Gamelan, New Music Ensemble.

**MUCH 101. Exploring Music (2) I, II.** Focus on three types of contexts important to appreciating music: the composer, the place, and the time. Open to non-music majors.

**MUCH 110. Elements of Music (3) I,** summer. Musical literacy in scales, intervals and triads in two clefs, as demonstrated by singing, hearing, reading, and writing. Open to non-majors, minors, and music majors with consent of instructor.

**MUCH 116. Fundamentals of Composition (2) I, II.** Basic compositional techniques for students not yet admitted to baccalaureate program in music composition. May be repeated. Cannot be substituted for MUCH 316. Prerequisite: MUCH 110 or consent of instructor.

**MUCH 125. Music of World Cultures (3)** On demand. Musical systems of major non-Western art musics: Africa, Near East, Pacific, and Asia. Theoretical, analytical, and cultural concepts related to music. Open to non-majors.

**MUCH 131. Western Art Music I (4) I, II.** Music of Baroque and Rococo periods viewed from theoretical, analytical, historical, cultural and performance perspectives. Prerequisite: MUCH 110 or equivalent.

**MUCH 132. Western Art Music II (4) I, II.** Music of Classical and Romantic periods viewed from theoretical, analytical, historical, cultural, and performance perspectives. Prerequisite: MUCH 131.

**MUCH 141. Aural Skills I (2) I, II.** Basic skills in singing pentatonic melodies and simple rhythms; memorization, penmanship; active participation. Open to non-majors, minors, and music majors.

**MUCH 142. Aural Skills II (2) I, II.** Basic comprehensive course in ear training: rhythmic, melodic, harmonic dictation; sight-singing. Prerequisite: MUCH 141.

**MUCH 211. Jazz Improvisation and Repertoire I (2) I.** Techniques of jazz improvisation and related repertoire, application of basic scales, arpeggios, melodic construction to blues and standard pop tunes.

**MUCH 212. Jazz Improvisation and Repertoire II (2) II.** Advanced techniques of jazz improvisation and related repertoire, application of modes, altered scales, chord extensions, chromatic harmony to jazz compositions. Prerequisite: MUCH 211.

**MUCH 221. Masterpieces of Music (2) I, II.** Music of important composers from various periods; directed listening to selected works. Open only to non-majors.

**MUCH 231. Western Art Music III (3) I, II.** Music of 20th century viewed from theoretical, analytical, historical, cultural, and performance perspectives. Prerequisite: MUCH 132.

**MUCH 232. Western Art Music IV (2) I, II.** Music of Renaissance period viewed from theoretical, analytical, historical, cultural, and performance perspectives. Prerequisite: MUCH 141.

**MUCH 233. African Music (2) II.** Music of various cultural groups of sub-Sahara Africa. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 141.

**MUCH 234. Japanese Music (2) I.** Music of Japanese temple, court, theater, and concert. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 141.

**MUCH 235. Indonesian Music (2) I, II.** Music of principal cultural groups of Indonesia. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 141.

**MUCH 236. Jazz Theory (2) I.** Prepares student for improvisation or arranging; includes chord spelling, chord-scales, altered dominant harmony, turnarounds and tags, forms, and performance characteristics. Prerequisite: MUCH 131.

**MUCH 237. Jazz History (3) I, II.** Historical analysis of the music and musicians of jazz styles from 1900-1981. Particular focus on music of bebop, New Orleans, swing, free jazz, and electric jazz. Prerequisite: MUCH 131.

**MUCH 241. Aural Skills III (2) I, II.** MUCH 142 continued. Prerequisite: MUCH 142. (Music majors must have grade of "C" or better in MUCH 142.)

**MUCH 242. Aural Skills IV (2) I, II.** MUCH 241 continued. Prerequisite: MUCH 241.

**MUCH 300. Small Ensembles (1) I, II.** Collegium Musicum of College of Musical Arts offered under supervision of Composition/History Department. For juniors or seniors. May be repeated. Following types of small ensembles offered: Renaissance Ensemble, Baroque Ensemble, Indonesian Gamelan, New Music Ensemble.

**MUCH 308. Keyboard Harmony I (2) I.** Use of keyboard skills relating to score reading, transposition, extemporization, and accompanying.

**MUCH 309. Keyboard Harmony II (2) II.** Continuation of keyboard skills developed in MUCH 308; practical aspects of accompanying. Prerequisite: MUCH 308.

**MUCH 311. Jazz Arranging and Analysis I (3) I.** Swing repertoire, typical chord progressions, formal structure, melodic construction, compositional devices. Basic arranging techniques common to traditional big-band music. Prerequisite: MUCH 212.

**MUCH 312. Jazz Arranging and Analysis II (3) II.** Harmonic trends of bop period; substitute chords, altered chords, melodic and rhythmic treatment. Addition of double reeds, French horns, and strings to the big-band. Contemporary trends in jazz and commercial music, including small group and rock styles. Prerequisite: MUCH 311.

**MUCH 315. Orchestration (2) I.** Score analysis, arranging and writing for various families of orchestra - woodwinds, brass, percussion, strings, scoring for full symphonic orchestra. Prerequisite: MUCH 231.

**MUCH 316. Composition (3) I, II.** Original composition in vocal and instrumental forms. May be repeated to 12 hours. Prerequisite: MUCH 232.

**MUCH 318. Symphonic Literature (2) I.** Listening to and analysis of works tracing development of symphony and symphonic poem to modern period. Prerequisite: MUCH 231.

**MUCH 320. Band Arranging (2) II.** Scoring for band instruments, from small ensembles to concert band and marching band. Prerequisite: MUCH 231.

**MUCH H341. Aural Skills V (2) I.** MUCH 242 continued. Prerequisite: MUCH 242. For honor students, music composition/theory, and students wishing to become tutors for Aural Skills I-IV.

**MUCH 401. History and Literature of Jazz (2) I.** Jazz from African influences through present developments; personalities involved in stylistic change.

**MUCH 403. Counterpoint I (2) I.** 16th century counterpoint. Prerequisite: MUCH 232.

**MUCH 404. Counterpoint II (2) II.** 18th century counterpoint, tonal counterpoint in three and four voices; canon, invention, fugue, chorale-prelude. Prerequisite: MUCH 232.

**MUCH 406. Problems In Music History (3)** On demand. Research through topics and problems in music history. Prerequisite: consent of instructor. May be repeated to 12 hours.

**MUCH 407. Performance Practice (2) I.** Performance practice in music, improvisation, ornamentation, accompaniment, instrumentation, rhythm and tempo. Prerequisite: MUCH 232.

**MUCH 408. Chamber Music Literature (2) II.** Selected major chamber music works of various periods. Reading on all forms and media. Prerequisite: MUCH 232.

**MUCH 410. Contemporary Music Pro-Seminar (2) I, II.** Musical styles and techniques of 20th century compositional and analytical approach, considering various influences of past. May be repeated to 8 hours. Open automatically to composition majors, to others by consent of instructor. Prerequisite: MUCH 232 with "C" or better.

**MUCH 411. Jazz Pedagogy (2) II.** Prepares student to teach fundamentals of jazz improvisation, arranging, jazz ensemble techniques. Prerequisite: MUCH 312.

**MUCH 412. Opera Literature (2) II.** Styles, interpretation, traditional performances of various schools. Prerequisite: MUCH 232.

**MUCH 420. Problems and Techniques of Ethnomusicology (2)** On demand. Topics and techniques in ethnomusicology. Open to students interested in all music as aspects of culture.

**MUCH 424. Electronic Music I (3) I.** Basic language and literature of electronic music. One non-credit hour a week in listening laboratory. Problems of live electronic music.

**MUCH 425. Electronic Music II (3) II.** Various commercial equipment reviewed. Students realize tapes in electronic music studio under faculty supervision. Prerequisite: MUCH 424.

**MUCH 431. Aesthetics of Black Music (3)** On demand. West African and Afro-American concepts of music; modifying effects America has had from slavery to present.

**MUCH 436. Recording Techniques (2) I, II.** Concert and studio multi-track recording methods culminating with an actual recording session. Students will gain some hands-on experience. Prerequisite: experience with audio hardware.

**MUCH 470. Reading and Research (2-4) I, II.** Directed independent reading and research in history, philosophy, theory, or aesthetics of music. Prerequisites: 16 hours of music theory and history, and consent of instructor.

**Music Education (MUED)**

For education credit only.

- MUED 125. Percussion Class (1) II.** Prerequisite: MUED 145. (Elective).
- MUED 130. Trumpet-French Horn Class (1) I, II.**
- MUED 136. Trombone-Euphonium-Tuba Class (1) I, II.**
- MUED 140. Clarinet-Saxophone Class (1) I, II.**
- MUED 145. Flute-Percussion Class (1) I, II.**
- MUED 146. Oboe-Bassoon Class (1) I, II.**
- MUED 147. Bassoon Reed Class (1) II.** (Elective).
- MUED 150. Class Piano (1) I, II.** Class piano instruction for beginners and those with minimal keyboard experience. Placement into MUED 150 and 151 is determined on the basis of an audition. Only open for credit to music majors and minors. Grade of "C" or better required for admittance into MUED 151.
- MUED 151. Class Piano (1) I, II.** MUED 150 continued. Grade of "C" or better required for admittance into sophomore level group piano courses. This course includes Piano Proficiency I.
- MUED 154. Class Piano (1) I, II.** Intermediate class study. A more advanced approach to the acquisition of functional skills for those with advanced keyboard facility who need class instruction in order to pass functional proficiency requirements. A grade of "C" or better required for admittance into sophomore level group piano courses; includes Piano Proficiency I.
- ◆ **MUED 156. Beginning Piano for the Non-music Major I (2) I, II.** Class piano course for beginning work in music reading, pop/jazz chords, keyboard technique, improvisation, and elementary piano literature. Not open to music majors or minors.
- ◆ **MUED 157. Beginning Piano for the Non-music Major II (2) I, II.** MUED 156 continued. Class piano course for beginning work in music reading, pop/jazz chords, keyboard technique, improvisation, and easy piano literature. Not open to music majors or minors. Prerequisite: MUED 156 or equivalent.
- MUED 170. Voice Class (1) I, II.** Beginning study of voice production, breathing, posture, and diction through vocalises and songs in English.
- MUED 177. Voice Class (1) I, II.** MUED 170 continued. Prerequisite: MUED 170.
- MUED 180. String Class (2) I, II.**
- MUED 190. Troubadour Harp Class (1) I, II.** (Elective).
- MUED 195. Guitar Class (1) I, II.**
- MUED 240. Introductory Music Field Experience (3) I, II.** Introduction to the music education profession and a wide variety of teaching situations at all levels. Prerequisite: sophomore standing in music. C/F hrs: 40. Required of all sophomores.
- MUED 249. Music Fundamentals (2) I, II.** Development of a functional understanding of the elements of music and a basic awareness of the characteristics of the historical periods of music. C = 15 hours. Not open to music majors.
- MUED 250. Class Piano: Instrumental Harmonization and Score Reading I (2) I, II.** Class piano course for intermediate level work in melody harmonization, pop/jazz chords, and sightreading of piano and instrumental scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.
- MUED 251. Class Piano: Instrumental Harmonization and Score Reading II (1) I.** Class piano course for students with advanced keyboard facility; intermediate level work in melody harmonization, pop/jazz chords, and sightreading of piano and instrumental scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.
- MUED 252. Class Piano: Choral Harmonization and Score Reading I (2) I, II.** Class Piano course for intermediate level work in melody harmonization, pop/jazz chords, and sightreading of choral scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.
- MUED 253. Class Piano: Choral Harmonization and Score Reading II (2) I.** Class Piano course for students with advanced keyboard facility; intermediate level work in melody harmonization, pop/jazz chords, and sightreading of choral scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.
- MUED 254. Class Piano: Classroom Harmonization, Transposition, and Improvisation I (2) I.** Class piano course for intermediate level work in melody harmonization, pop/jazz chords, transposition, and improvisation. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.
- MUED 255. Class Piano: Classroom Harmonization, Transposition, and Improvisation I (1) I.** Class piano course for students with advanced keyboard facility; intermediate level work in melody harmonization, accompaniment transposition, and improvisation. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.
- MUED 256. Class Piano: Accompanying as a Teaching Tool I (1) I, II.** Class piano course for music education students who are not advanced pianists will provide introductory work in accompanying skills. Prerequisite: Piano Proficiency II. Grade of "C" or better required of music education majors for graduation.
- MUED 257. Class Piano: Accompanying as a Teaching Tool II (1) I, II.** Class piano course for music education student with advanced keyboard facility; will provide work in accompanying skills. Prerequisite: Piano Proficiency II. Not for keyboard emphasis majors. Grade of "C" or better required of music education majors for graduation.
- MUED 331. Student Teaching (10) I, II.** Supervised teaching in area schools, supplemented by conferences and seminars. Required of all music education majors. Meets student teaching requirement for special teacher's certification in music. Prerequisites and guidelines for student teaching stated under music education. Special fee assessed. Graded S/U.
- MUED 332. Student Teaching (2-7) I, II.** Additional student teaching experience taken upon advice of music education faculty. Special fee assessed. Graded S/U.
- MUED 340. Junior Methods Project in Music (9) I (Choral, String, Elementary/ junior high band option), II.** (Secondary instrumental, classroom options). Concentrated study of teaching and administering music in grades K-12; emphasizes correlation of methods seminars with field and clinical activities. C/F hrs: 30-90. Taken in conjunction with conducting, applied study and ensemble. Prerequisite: MUED 240. Field component graded S/U.
- MUED 349. Music as a Teaching Tool (2) I, II.** Development of skills in teaching procedures and related aspects of teaching. Acquisition of procedures for integrating music into classroom activities. C = 15 hours. Not open to music majors.
- MUED 359. Examination and Performance of Choral Repertoire (2) I.** Material suitable for use in secondary schools; related performance problems and their solutions.
- MUED 360. Musical Theatre Production Survey (2) II.** On demand. Overview of considerations necessary in production of music theatre at public school level.
- MUED 402. Beginning Wind and Percussion Instrument Repair (1) II.** Basic practices and techniques of instrument repair.
- MUED 450. Adult Group Piano Teaching (2) II.** A survey of materials, supervised teaching, and program development appropriate for the adult level class. Open to students with a strong piano background. Consent of instructor required. Available for graduate credit also. Alternate years beginning 1983 or on demand.
- MUED 451. Advanced Methods for Classroom Music (2) I.** Examination of methods, instructional hardware, organizational patterns, and curricular models. Available for graduate credit also. Prerequisite: MUED 340 or consent of instructor.
- MUED 458. Marching Band Techniques (2) I.** Techniques in planning, charting and rehearsing marching band shows and administering public school marching bands. Prerequisite: junior standing.
- MUED 491. Teaching Practicum (1-2) I, II.** Supervised teaching in University laboratory schools for junior level classroom, choral or instrumental option music education majors. Prerequisite: consent of instructor. Graded S/U.

**Music, General (MUS)**

- MUS 099. Recital Attendance (0) I, II.** Required of all music majors for six semesters. Successful completion of course requires attendance at minimum of 15 on-campus music performances. Graded S/U.
- MUS 190. Beginning Guitar (2) I, II.** Introduction to the guitar, fundamentals of technique and music notation reading. Open to non-music majors only.
- MUS 191. Intermediate Guitar (2) I, II.** MUS 190 continued. Open to non-music majors only. Prerequisites: MUS 190 or previous experience and consent of instructor.

## Music Performance Studies (MUSP)

**MUSP 100. Small Ensembles** (1) I, II, summer. Formed under supervision of College of Musical Arts and offered on demand. For freshmen or sophomores. May be repeated. All students majoring in performance or with instrumental or vocal emphasis in music education will participate in small ensembles when assigned. Assignments made on basis of needs of student's program. Specific minimum number of credits is required in each program, and this number will apply toward graduation. Work done above minimum may be counted as music electives. Following small chamber ensembles offered:

*MUSP 100a. Music Theater Productions.*  
*MUSP 100b. Folk Ensembles.*  
*MUSP 100c. Percussion.*  
*MUSP 100d. Brass Choir I.*  
*MUSP 100e. Euphonium-Tuba.*  
*MUSP 100f. Brass.*  
*MUSP 100g. Jazz Lab I.*  
*MUSP 100h. String.*  
*MUSP 100i. Trombone Choir.*  
*MUSP 100j. Jazz Lab II.*  
*MUSP 100k. Woodwind.*  
*MUSP 100l. Horn Ensemble.*  
*MUSP 100m. Jazz Lab III.*  
*MUSP 100n. Brass Choir II.*  
*MUSP 100o. Harp.*  
*MUSP 100p. Piano Ensemble.*  
*MUSP 100q. Piano Accompaniment.*  
*MUSP 100r. Mixed Chamber.*  
*MUSP 100s. Collegiate Chamber Singers.*  
*MUSP 100t. Saxophone Ensemble.*

**MUSP 160. Sight Reading I** (1) II. Development of visual comprehension of intervallic patterns and comprehension of basic rhythmic patterns. Prerequisite: consent of instructor.

**MUSP 195, 221, 231-235, 241-245, 261-263, 271-272, 281-285. Applied Instruction.** One credit awarded for each half hour of applied instruction. Performance majors entitled to four credits for one clock hour lesson. \$45 fee for each half hour of applied instruction assessed each quarter. (Maximum of \$90 for any one applied course.) Student enrolled for applied music has access to practice rooms and equipment with schedules and regulations determined by College of Musical Arts.

**MUSP 195. Pedal Harp Class** (1) I, II. Prerequisite: one quarter of Troubadour Harp (MUED 190) or permission of instructor. Fee: \$22.50.

**MUSP 221. Applied Percussion** (1,2,3,4) I, II, summer.

**MUSP 231. Applied Trumpet** (1,2,3,4) I, II, summer.

**MUSP 232. Applied French Horn** (1,2,3,4) I, II, summer.

**MUSP 233. Applied Trombone** (1,2,3,4) I, II, summer.

**MUSP 234. Applied Euphonium** (1,2,3,4) I, II, summer.

**MUSP 235. Applied Tuba** (1,2,3,4) I, II, summer.

**MUSP 241. Applied Flute** (1,2,3,4) I, II, summer.

**MUSP 242. Applied Oboe** (1,2,3,4) I, II, summer.

**MUSP 243. Applied Clarinet** (1,2,3,4) I, II, summer.

**MUSP 244. Applied Saxophone** (1,2,3,4) I, II, summer.

**MUSP 245. Applied Bassoon** (1,2,3,4) I, II, summer.

**MUSP 261. Applied Piano** (1,2,3,4) I, II, summer.

**MUSP 262. Applied Harpsichord** (1,2,3,4) I, II.

**MUSP 263. Applied Organ** (1,2,3,4) I, II, summer.

**MUSP 271. Para-Voice** (2) I, II. Fee: \$45.

**MUSP 272. Applied Voice** (1,2,3,4) I, II, summer.

**MUSP 281. Applied Violin** (1,2,3,4) I, II, summer.

**MUSP 282. Applied Viola** (1,2,3,4) I, II, summer.

**MUSP 283. Applied Cello** (1,2,3,4) I, II, summer.

**MUSP 284. Applied Double Bass** (1,2,3,4) I, II, summer.

**MUSP 285. Applied Harp** (1,2,3,4) I, II.

**MUSP 210. Piano Repertoire** (3) I. Alternate years. Literature from early keyboard music through classical. Prerequisite: consent of instructor.

**MUSP 211. Piano Repertoire** (3) II. Alternate years. Piano literature from Romantic era to present. Prerequisite: consent of instructor.

**MUSP 214. Singer's Diction-Italian** (2) I. International phonetic alphabet used as basis for phonetic analysis of Italian text in applying principles of lyric Italian diction as concerns the singer; simple grammatic construction; use of dictionary.

**MUSP 215. Organ Repertoire** (2) I. Alternate years. Organ literature from 1325 to the present, excluding the music of J.S. Bach. Prerequisite: consent of instructor.

**MUSP 216. Organ Repertoire** (2) II. Alternate years. Organ music of J.S. Bach. Prerequisite: consent of instructor.

**MUSP 238-239, 277-279, 288-289. Large Ensembles** (1-2) I, II. Open to any University student possessing necessary musical ability. Any student taking individual voice lessons may register for MUSP 277 or MUSP 278 or MUSP 279 only with consent of his/her voice instructor and conductor of ensemble. All credit earned in large ensembles placed on student's permanent academic record.

**MUSP 238. Symphonic or Concert Band\*** (freshman-sophomore) (1-2).

**MUSP 239. Marching Band\*** (freshman-sophomore) (2).

**MUSP 277. A Capella Choir** (freshman-sophomore) (1).\*

**MUSP 278. Collegiate Chorale** (freshman-sophomore) (2).\*

◆ **MUSP 279. University Chorus** (freshman-sophomore) (1).\*

**MUSP 288. Chamber Orchestra** (freshman-sophomore) (1).\*

**MUSP 289. Symphony Orchestra** (freshman-sophomore) (2).\*

**MUSP 264. Accompanying Techniques I** (1) I. Problems involving musical comprehension of solo part together with accompaniment; general introduction to vocal and instrumental accompaniment literature. Prerequisite: MUSP 160 or consent of instructor.

**MUSP 265. Piano Four-Hand Class** (1). On demand. Appropriate four-hand keyboard literature; emphasis on 19th century. Prerequisite: MUSP 160 or consent of instructor.

**MUSP 275. Introduction to Opera Workshop** (2) I. Basic terminology and practices of opera theatre.

\*Audition or faculty assignment required.

**MUSP 300. Small Ensembles** (1) I, II.

Formed under supervision of College of Musical Arts and offered on demand. For juniors or seniors. May be repeated. All students majoring in performance or with instrumental or vocal emphasis in music education will participate in small ensembles when assigned. Assignments made on basis of needs of student's program. Specific minimum number of credits is required in each program, and this number will apply toward graduation. Work done above minimum may be counted as music electives. Following small chamber ensembles offered:

*MUSP 300a. Music Theater Productions.*  
*MUSP 300b. Folk Ensemble.*  
*MUSP 300c. Percussion.*  
*MUSP 300d. Brass Choir I.*  
*MUSP 300e. Euphonium-Tuba.*  
*MUSP 300f. Brass.*  
*MUSP 300g. Jazz Lab I.*  
*MUSP 300h. String.*  
*MUSP 300i. Trombone Choir.*  
*MUSP 300j. Jazz Lab II.*  
*MUSP 300k. Woodwind.*  
*MUSP 300l. Horn Ensemble.*  
*MUSP 300m. Jazz Lab III.*  
*MUSP 300n. Brass Choir II.*  
*MUSP 300o. Harp.*  
*MUSP 300p. Piano Ensemble.*  
*MUSP 300q. Piano Accompaniment.*  
*MUSP 300r. Mixed Chamber.*  
*MUSP 300s. Collegiate Chamber Singers.*  
*MUSP 300t. Saxophone Ensemble.*

**MUSP 305. Conducting I** (2) I. Fundamental beat and cuing techniques.

**MUSP 306. Conducting II** (2) II. Advanced study and analysis of baton techniques, score reading, and rehearsal procedures; concentration option of either instrumental or choral conducting. Prerequisite: MUSP 305.

**MUSP 311. Vocal Repertoire** (2) I. Late 19th century to present British and American song literature; repertoire for high school vocal solo contest; Scandinavian and Russian song literature. Prerequisite: consent of instructor.

**MUSP 312. Vocal Repertoire** (2) II. Alternate years. 19th and 20th century French, Spanish, and German art song literature. Prerequisite: consent of instructor.

**MUSP 360. Sight Reading II** (1) I. Rapid comprehension of complex intervallic and rhythmic patterns; coordinates problems involving ensemble precision. Prerequisite: MUSP 160 or equivalent skill level.

**MUSP 361. Style and Interpretation** (1) I. Supervised preparation and analysis of selected works of early keyboard music through classic; emphasis on style and interpretation. Prerequisite: MUSP 211.

**MUSP 362. Style and Interpretation** (1) II. Supervised preparation and analysis of selected keyboard works from the Romantic era to the present; emphasis on style and interpretation. Prerequisite: MUSP 211.

**MUSP 364. Accompanying Techniques II** (1) II. Continuation of previous course work; advanced problems involving visual comprehension and aural prehension of solo part together with accompaniment; problems of temporal displacement of scansion and physical execution. Prerequisite: MUSP 264 or consent of instructor.

**MUSP 367. Piano Pedagogy I** (3) I. Methods, materials, and teaching techniques for the beginning pre-college student. Prerequisite: consent of instructor.

**MUSP 366. Piano Pedagogy II** (3) II. Methods, materials, and teaching techniques for the intermediate pre-college student. Prerequisite: MUSP 367 or consent of instructor.

**MUSP 378. Opera Workshop** (2) I, II, summer. Development of stage techniques for more advanced students in productions of scenes and complete operas. Total of 12 credit hours possible. Vocal performance majors required to take four hours. Prerequisite: MUSP 275 or consent of instructor.

**MUSP 396. Service Playing** (2) I. Alternate years. Hymn playing, transposition, modulation, improvisation, and accompanying at the organ. Prerequisite: consent of instructor.

**MUSP 397. Service Playing** (2) II. Alternate years. MUSP 396 continued. Prerequisite: MUSP 396 or consent of instructor.

**MUSP 410. Harpsichord Repertoire** (3) I. Keyboard literature to 1700-based on original source material and contemporary editions; emphasis on performance. Prerequisite: consent of instructor.

**MUSP 411. Harpsichord Repertoire** (3) II. Solo harpsichord literature from 1700 to the present; emphasis on performance. Prerequisite: consent of instructor.

**MUSP 415. Organ Construction** (2) II. Chronological history of the design and construction of the organ. Prerequisite: consent of instructor.

**MUSP 416. Church Music** (2) II. On demand. Music of the major Western churches; plain-song, hymnology, liturgies. Prerequisite: consent of instructor.

**MUSP 421, 431-435, 441-445, 461-463, 471-472, 481-485. Applied Instruction.** One credit awarded for each half hour of applied instruction. Performance majors entitled to four credits for one clock hour lesson. \$45 fee for each half-hour of applied instruction assessed each quarter. (Maximum of \$90 for any one applied course.) Student enrolled for applied music has access to practice rooms and equipment with schedules and regulations determined by College of Musical Arts.

**MUSP 421. Applied Percussion** (1,2,3,4) I, II, summer.

**MUSP 431. Applied Trumpet** (1,2,3,4) I, II, summer.

**MUSP 432. Applied French Horn** (1,2,3,4) I, II, summer.

**MUSP 433. Applied Trombone** (1,2,3,4) I, II, summer.

**MUSP 434. Applied Euphonium** (1,2,3,4) I, II, summer.

**MUSP 435. Applied Tuba** (1,2,3,4) I, II, summer.

**MUSP 441. Applied Flute** (1,2,3,4) I, II, summer.

**MUSP 442. Applied Oboe** (1,2,3,4) I, II, summer.

**MUSP 443. Applied Clarinet** (1,2,3,4) I, II, summer.

**MUSP 444. Applied Saxophone** (1,2,3,4) I, II, summer.

**MUSP 445. Applied Bassoon** (1,2,3,4) I, II, summer.

**MUSP 451. Applied Piano** (1,2,3,4) I, II, summer.

**MUSP 452. Applied Harpsichord** (1,2,3,4) I, II.

**MUSP 463. Applied Organ** (1,2,3,4) I, II, summer.

**MUSP 471. Para-Voice** (2) I, II. Fee: \$45

**MUSP 472. Applied Voice** (1,2,3,4) I, II, summer.

**MUSP 481. Applied Violin** (1,2,3,4) I, II, summer.

**MUSP 482. Applied Viola** (1,2,3,4) I, II, summer.

**MUSP 483. Applied Cello** (1,2,3,4) I, II, summer.

**MUSP 484. Applied Double Bass** (1,2,3,4) I, II, summer.

**MUSP 485. Applied Harp** (1,2,3,4) I, II, summer.

**MUSP 436-439, 477-479, 488-489. Large Ensembles** (1-2) I, II. Open to any University student possessing necessary musical ability. Any student taking individual voice lessons may register for MUSP 477 or MUSP 478 or MUSP 479 only with consent of his/her voice instructor and conductor of ensemble. All credit earned in large ensembles placed on student's permanent academic record.

**MUSP 438. Symphonic or Concert Band** (junior-senior) (1-2).\*

**MUSP 439. Marching Band** (junior-senior) (2).\*

**MUSP 477. A Capella Choir** (junior-senior) (1).\*

**MUSP 478. Collegiate Chorale** (junior-senior) (2).\*

**MUSP 479. University Chorus** (junior-senior) (1).\*

**MUSP 488. Chamber Orchestra** (junior-senior) (1).\*

**MUSP 489. Symphony Orchestra** (junior-senior) (2).\*

**MUSP 453. Brass Pedagogy** (2) II. Teaching techniques and materials for brass instruments. Prerequisite: consent of instructor.

**MUSP 454. Woodwind Pedagogy** (2) II. Teaching techniques and materials for woodwind instruments. Prerequisite: consent of instructor.

**MUSP 458. String Pedagogy** (2) II. Upper and lower strings. Principles of teaching stringed instruments. Investigation of related literature and materials. Prerequisite: consent of instructor.

**MUSP 459. Organ Pedagogy** (2) I or II or summer. On demand. Principles and techniques and literature applied to various levels of organ study. Prerequisite: consent of instructor.

**MUSP 466. Piano Pedagogy Practicum** (1) I, II, summer. Laboratory in supervised piano teaching, both private and classes. Prerequisite: MUSP 367 or consent of instructor. May be repeated.

**MUSP 467. Piano Technology** (1) I. Appreciation of piano building, repair, and tuning. Minor repairs, regulation, and art of tuning. Prerequisite: consent of instructor.

**MUSP 470. Readings, Research, and Performance in Music** (1-5) I, II, summer. Directed independent readings, research, and/or performance in performance studies in music. Prerequisites: consent of instructor and department chair.

**MUSP 495. Senior Recital** (2) I, II, summer. For performance studies majors. Full recital required during senior year prior to graduation. Recital repertoire requirements determined by respective areas within performance studies department. Prerequisite: consent of area coordinator.

## Nursing (NURS)

**NURS 100. Orientation to Nursing** (1) I. Assists freshmen in choosing nursing as major and career goal; professional nurse's role, history of nursing, future trends in relation to current U.S. health care delivery system. Graded S/U.

**NURS 205. Healthy Self and Young Adult** (4) I. Introduction to nursing as a profession and the Self-Care Deficit Theory. Assessment of universal self care requisites. Emphasis on health promotion and disease prevention for students and other young adults. Introduction to communication skills. Three hours of class and six hours of media-skills laboratory and clinical experience weekly. Prerequisite: admission to nursing major.

**NURS 206. Healthy Adult/Older Adult** (3) II, summer. Design, implement and evaluate nursing systems to meet universal and developmental self-care deficits in middle-aged and older healthy adults. Developing communication skills for this population group. Three hours of lecture and six hours of media-skills laboratory and clinical experience weekly. Prerequisite: NURS 205.

**NURS 207. Healthy Child and Family** (3) II, summer. Assisting children and families in meeting universal and developmental self-care requisites; assessing common risks to infant health and childhood development; increasing communication skills. Knowledge of preventive measures related to prenatal, intrapartum, postnatal and neonatal/child care. Three hours class and six hours media-skills laboratory and clinical experience weekly. Prerequisite: NURS 205.

**NURS 260. Human Anatomy** (3) I. Structure of body systems. Prerequisite: admission to nursing major.

**NURS 261. Human Physiology** (4) II. Function of cardiovascular, respiratory, urinary, muscular, nervous, endocrine, gastrointestinal and reproductive systems. Prerequisite: NURS 260.

**NURS 303. Clinical Nursing Ethics** (1) I, II, summer. To assist nursing students to recognize ethical situations as they occur in clinical practice and to deal with those situations on the basis of reasoned ethical decision making. Prerequisite: NURS 206 and 207. Prerequisite with or concurrent to PHIL 342. Graded S/U.

**NURS 305. Adult Physiologic Health Deviations I** (5) I, II, summer. Assessment of adult clients during illness; design of nursing systems to meet health deviations related to deficits in air, solitude and social interaction, activity, and rest, and being normal. Four hours of class and twelve hours of clinical experience weekly. Prerequisites: NURS 206 and 207.

**NURS 306. Adult Physiological Health Deviations II** (5) I, II, summer. Assessment of adult clients during illness; design of nursing systems to meet health deviations related to deficits in food, water, elimination, hazards to life and well-being. Four hours of class and nine hours of clinical experience weekly. Prerequisites: NURS 206 and 207.

**NURS 307. Hospitalized Child and Family** (5) I, II, summer. Health focus oriented to biological state of newborn, infants with size or maturity alteration or genetic defects. Hospital maternity and pediatric experience. Four hours of class and twelve hours of clinical weekly. Prerequisites: NURS 206 and 207.



**NURS 320. Self-Care Deficit Theory for Nursing Practice I (2)** I. Focuses on Orem's self-care deficit theory as foundation for professional nursing practice. Emphasis on application of nursing process in a holistic approach to clients for systematic helping and interpersonal relating. Three hours of class. Prerequisite: admission to RN sequence. To be taken concurrently with NURS 321.

**NURS 321. Nursing Assessment I (2)** I. Integration of nursing process with introduction of basic skills of history taking and physical assessment. Application of physical assessment skills includes examination of skin, head and neck, lungs, thorax, and breast. One class hour and six hours of lab weekly. Prerequisite: admission to RN sequence. To be taken concurrently with NURS 320.

**NURS 322. Self-Care Deficit Theory for Nursing Practice II (3)** II. Extends concepts in self-care theory deficit theory with emphasis on design of nursing systems and application of Egan's model for interpersonal relating. Three hours of class weekly. Prerequisite: NURS 320. To be taken concurrently with NURS 323.

**NURS 323. Nursing Assessment II (2)** II. Continues focus on integration of nursing process with physical assessment. Application of physical assessment skills include examination of heart, abdomen, genitalia, and neuromuscular system resulting in a total physical examination. One hour of class and six hours of lab weekly. Prerequisite: NURS 321. To be taken concurrently with NURS 322.

**NURS 324. Professional Development in Nursing (2)** Summer. Role development in professional nursing. Emphasis on development of a career plan, with timetables and strategies for achieving career goals, and current issues in nursing. Three hours of class weekly. Prerequisites: NURS 321 and 322.

**NURS 350. Physiology II and Pathophysiology (3)** I. Function of cardiovascular, respiratory, urinary systems; function of disease processes in human organism. Prerequisite: NURS 261.

**NURS 351. Microbiology and Infectious Disease Processes (3)** II. Microbiology, immunology, pathologic responses to infection, principal infectious diseases of man; structure and function of bacteria and viruses, antigen-antibody reactions, serology, growth and inhibition of microorganisms, pathogenesis and disease. Prerequisite: NURS 350.

**NURS 352. Pharmacology and Therapeutics (3)** Summer. Pharmacologic principles, drug metabolism, methods by which body handles drugs; classes of drug agents, effects on body's systems. Prerequisite: NURS 351.

**NURS 400. Adult Psychological Health Deviations (3-6)** I, II, summer. Three hours of class and eighteen hours of clinical experience each week. Regulation of behavioral disorders; evaluation of effectiveness of nursing systems with groups of chronically ill clients; rehabilitative mental health care. Prerequisites: NURS 305, 306, and 307, or NURS 324 for RN students.

**NURS 401. Community Health Nursing (3-6)** I, II, summer. Three hours of class, eighteen hours of clinical experience each week. Health focus oriented to groups of chronically ill clients in the community; legislation, financing of health care systems; epidemiologic method of investigation. Prerequisites: NURS 305, 306, and 307 or NURS 324 for RN students.

**NURS 402. Management for Quality Care (3-6)** I, II, summer. Three hours of class, eighteen hours of clinical experience each week. Leadership, change theory and quality assurance concepts applied in management of groups of clients in variety of settings. Prerequisites: NURS 305, 306, and 307 or NURS 324 for RN students.

**NURS 405. Oncologic Nursing (3)** I, II, summer. Concepts, theories and trends in care of patient with cancer. Includes management methodologies and nurse's role in diagnosis, treatment and rehabilitation, in both preventive and supportive areas. Prerequisites: NURS 305, 306, 307 or NURS 324 for RN students.

**NURS 411. Basic Concepts in Nursing Research I (1)** I, II. Formulation of research questions relevant to health care. Graded S/U.

**NURS 412. Basic Concepts in Nursing Research II (2)** II, summer. The research process; review of literature in relation to health problem. Prerequisite: NURS 411. Graded S/U.

**NURS 470. Independent Study in Nursing (1-3)** I, II, summer. Research or project designed by student with guidance of a faculty member. Open to senior students who have obtained consent of a faculty member.

## Operations Research (OPRE)

**OPRE 380. Introduction to Operations Research (3)** I, II. Philosophy underlying formulation of business problems in quantitative terms. Linear programming, special cases of linear programming, sensitivity analysis, inventory theory, and simulation. Prerequisite: MATH 125 or MATH 131, sophomore business core, or consent of instructor.

**OPRE 480. Linear and Integer Programming (3)**. Modeling industrial and public administration problems via linear and integer programming; sensitivity analysis; parametric programming; dual, cutting plane methods; branch and bound methods; current topics in integer programming. Prerequisite: OPRE 380.

**OPRE 482. Computer Simulation of Stochastic Systems (3)**. Techniques of setting up stochastic models for inventory, production, queuing, scheduling, economic systems; implementing these models using computer simulation languages (e.g. GPSS). Prerequisites: STAT 212 or MATH 442, and at least one computer programming course.

**OPRE 485. Introduction to Stochastic Models (3)**. Problems of incorporating risk into decision models; queuing theory; stochastic inventory models; Markov chains; stochastic mathematical programming. Prerequisite: OPRE 380. STAT 315 recommended.

**OPRE 487. Network Theory and Special Topics in Mathematical Programming (3)**. Modeling industrial and public administration problems via network models; PERT transshipment, assignment, shortest route, maximal flow; out-of-kilter algorithm; goal programming; advanced topics in mathematical programming. Prerequisite: OPRE 480.

**OPRE 488. Theory of Inventory Systems (3)**. Theory and techniques of constructing and analyzing mathematical models of inventory systems; models under stochastic conditions. Prerequisite: OPRE 485.

**OPRE 489. Applied Nonlinear and Dynamic Programming (3)**. Quadratic and separable programming; gradient projection; penalty function and search methods. Dynamic programming with discrete and continuous variables, and its relationship to linear programming; geometric programming; applications in industry and public administration. Prerequisite: OPRE 480 or consent of instructor.

**OPRE 491. Studies in Operations Research (1-3)** On demand. Investigation of selected areas of contemporary problems. May be offered individually and in classes, depending on student needs and nature of material.

## Philosophy (PHIL)

◆ **PHIL 101. Introduction to Philosophy (3)** I, II. Systematic study of enduring human concerns about God, morality, society, the self and knowledge.

◆ **PHIL 102. Introduction to Ethics (3)** I, II. Discussion of ethical concepts such as good and evil and right and wrong in the context of contemporary moral issues; major ethical theories a basis for dealing with contemporary moral concerns.

◆ **PHIL 103. Introduction to Logic (3)** I, II. Uses of language including definitions and arguments, typical mistakes in reasoning, and methods for evaluating arguments.

◆ **PHIL 107. Introduction to Social Philosophy (3)** I, II. Freedom, authority, law, the state examined philosophically to determine nature of "individual" and "society" and relationship that should exist between them; violence, rights (legal and moral), punishment, alienation, justice, etc.

**PHIL 204. Aesthetics (3)** I, II. Meaning of "beauty" or aesthetic value in art and nature, approached problematically and applied to present-day experiences.

**PHIL 210. Philosophy of Development of Persons (3)** I, II. Self-development and criteria for evaluating life plans. Concepts of self-esteem and social responsibility applied to personal and counseling situations.

**PHIL 211. History of Ancient Philosophy (3)** I. Progress of Greek philosophy from its earliest origins in Greece through the Presocratics, Plato, and Aristotle, concluding with main themes of Hellenistic, Roman and medieval philosophy. PHIL 211 can function as an excellent introduction to philosophy.

**PHIL 212. History of Modern Philosophy (3)** II. Modern philosophy from its beginnings in the Renaissance, through the rationalists, empiricists, and Kant. Attention to emergence of skepticism and rise of modern science as important influences on the development of modern philosophy. PHIL 212 can function as an excellent introduction to philosophy.

◆ **PHIL 230. Scientific Reasoning (3)** I or II. Study of the scientific method which develops skills for interpreting scientific findings, and evaluating theories, tests and causal and statistical claims. One component deals with decision-making procedures based on these evaluations. No prerequisites.

◆ **PHIL 240. Topics in Philosophy (3)** I, II. Subject matter designated in class schedule. Primarily for students with little or no background in philosophy.



- PHIL 245. Philosophy of Feminism** (3) I or II. Philosophical presuppositions and specific proposals of feminists; view on sex roles, human welfare, justice and equality, rights, self-actualization, self-respect, autonomy, exploitation, oppression, freedom and liberation, reform and revolution.
- PHIL 303. Symbolic Logic** (3) I or II. Notation and proof procedures used by modern logicians to deal with special problems beyond traditional logic; propositional calculus, truth tables, predicate calculus, nature and kinds of logical proofs.
- PHIL 311. History of Medieval Philosophy** (3) I Alternate years. Offered in 1982-83. Major philosophical positions of Middle Ages; St. Augustine through Renaissance philosophers.
- ◆ **PHIL 313. History of Contemporary Philosophy** (3) II. Major movements in the 20th century, some emphasis on the most recent ones; includes existentialism, logical atomism, ordinary language analysis, and recent American analytic philosophy, and such philosophers as Sartre, Russell, Wittgenstein, Austin, Quine, and Davidson.
- PHIL 315. American Thought** (3) I or II. Philosophical thought in America; emphasis on pragmatists (Peirce, James, Dewey); Natural Rights philosophy, transcendentalism, other major figures such as Royce; Santayana, Whitehead.
- ◆ **PHIL 317. Philosophy of Religion** (3) I or II. Nature of religion; gods and/or God; faith, revelation, and religious belief; evil and righteousness; meaning of life. Readings from variety of sources, largely contemporary.
- PHIL 318. Philosophy of Law** (3) I, II. Philosophical foundations of legal system; essential nature of law and relation to morality; liberty, justice, and legal responsibility (intention, human causality, negligence, *mens rea*, fault, etc.) and punishment.
- ◆ **PHIL 319. Philosophy of Death and Dying** (3) I, II. Conceptual, metaphysical, and epistemological issues related to nature of death; existential issues related to human significance of death for individual and community; normative issues related to care of dying.
- PHIL 320. Business Ethics** (3) I, II. Value conflicts that arise in business situations and philosophical ways of resolving them including issues involving the social responsibility of business people. No prerequisite.
- PHIL 321. Indian Philosophy** (3) I or II. Traditional schools such as Nyaya-Vaisesika, Sankhya-Yoga, Buddhism and Vedanta; epistemology, systems of formal inference, causality, metaphysics, mind-body relationships, methodological presuppositions.
- PHIL 323. Asian Religions** (3) I or II. Fundamental tenets of major oriental religions — Hinduism, Buddhism, Jainism, Confucianism, Taoism, and Shintoism; cultural backgrounds of India, China, and Japan.
- PHIL 325. Communism, Capitalism and Democracy** (3) I or II. Freedom, alienation, human nature, the state, etc. as they function in communist, capitalist and democratic ideology.
- PHIL 327. Philosophy of Punishment** (3) I, II. Justification of capital punishment; acceptability of imprisonment as punishment; desirability of treating criminals as mentally ill rather than punishing them; related issues of different theories of punishment.
- PHIL 331. Existentialism** (3) I or II. Various existential themes, including the meaning of life, human freedom, the limits of reason, the meaning of death, and the individual vs. society. Kierkegaard, Nietzsche, Dostoevsky, Camus, Sartre, Jaspers, Buber, and others comprise the reading.
- PHIL 332. Environmental Ethics** (3) I or II. Framework to assess possible responses to environmental problems in light of human rights, standards of justice, and harm and benefit accruing from alternative solutions.
- PHIL 333. Philosophy in Science Fiction** (3) I or II. Ethical problems such as implications for man of advancement of science, relation of individual to state; metaphysical problems such as distinguishing men from robots, possibility of time travel.
- ◆ **PHIL 334. Philosophy in Literature** (3) I or II. Death, perception of self, conflict of values occurring in novels, plays, and poetry from various cultures. Content may vary from instructor to instructor, and from semester to semester. May be taken only once for credit.
- PHIL 335. Philosophy of Film** (3) I or II. Aesthetic theories concerning definition of film as distinctive art form; criteria for evaluation of films. Popular, documentary, art, and experimental films shown in class.
- PHIL 340. Problems in Philosophy** (3) I, II. Subject matter designated in class schedule. Primarily for students with little or no background in philosophy.
- PHIL 342. Medical Ethics** (3) I, II. Selected topics such as genetic engineering, euthanasia, honesty with the dying, and human experimentation viewed from perspective of representative ethical theories.
- PHIL 395. Workshop on Current Topics** (1-4) I, II On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format is used. Requirements are usually completed within this expanded time format. May be repeated if topics differ and adviser approves.
- PHIL 403. Topics in Logic** (3) I or II. Content varies from year to year. Topics include: modal logic, meta-theory of propositional and predicate logic, philosophy of logic. May be repeated for credit. Prerequisite: PHIL 303 (or equivalent) or consent of instructor.
- PHIL 406. Philosophy of Language** (3) I Alternate years; offered 1982-83. Historical and contemporary theories of meaning; their use in resolving traditional philosophical controversies and in providing foundation for contemporary analytic philosophy; various interdisciplinary connections.
- PHIL 412. Theory of Knowledge** (4) I or II; Alternate years. Survey of traditional epistemological issues and concepts combined with in-depth treatment of some epistemological problem(s). Prerequisite: twelve hours of philosophy.
- PHIL 414. Metaphysics** (4) I or II; Alternate years. Survey of traditional metaphysical issues and concepts combined with in-depth treatment of some metaphysical problem(s). Prerequisite: twelve hours of philosophy.
- PHIL 415. Topics in American Philosophy** (3) I or II. Theme or themes central to American philosophy. Prerequisite: one course in PHIL (excluding PHIL 103) or consent of instructor.
- PHIL 418. Philosophy of History** (3) I or II. Nature of historical knowledge and certain metaphysically oriented theories of history. Prerequisite: one course in PHIL (excluding PHIL 103) or consent of instructor.
- PHIL 423. Philosophy in Historical Perspective** (4) I or II. Historical development and cultural background of a philosophical movement, issue or period combined with an in-depth study of views of a major philosopher within that context. The latter will emphasize the integration of the philosopher's metaphysical, epistemological, and normative theories into a coherent world view. May be repeated. Prerequisite: twelve hours of philosophy.
- PHIL 425. Moral and Social Philosophy** (4) I or II. An in-depth treatment of some theme(s) in social philosophy combined with a survey of traditional ethical theories as a background to social philosophy. Prerequisite: twelve hours of philosophy.
- PHIL 431. Topics in Philosophy of Science** (3) I or II. Content varies from year to year. Topics include: nature of scientific explanation, causality, contemporary empiricism, philosophy of biology, methods, presuppositions, concepts of behavioral sciences. May be repeated for credit. Prerequisite: three hours in PHIL and/or course work in sciences or consent of instructor.
- PHIL 433. Philosophy and Physics of Space and Time** (3) II. Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include: Zeno's paradoxes, Greek concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Course presupposes high-school level mathematics only. Cross-disciplinary; cross-listed in PHYS.
- PHIL 470. Readings and Research** (1-3) I, II. Supervised independent work in selected areas. Prerequisite: twelve hours of PHIL and consent of chair of department. May be repeated to six hours.
- PHIL 480. Seminar in Philosophy** (3) I, II. In-depth examination of one specific philosopher, philosophical movement, or problem. Determined by need and interest of student. Prerequisite: four hours in PHIL (excluding PHIL 103) or consent of instructor.

## Physical Education (PEG and PEP)

(See health, physical education and recreation)

## Physics (PHYS)

- PHYS 100. Basic Physics** (3) II, summer. For nonscience student; major principles and concepts; application to other fields. Cannot be used as part of physics major or minor.
- PHYS 101. Physics for Society** (3) II. Relation of physics to areas of natural science, cultural development, and society. Two lecture-recitations and one two-hour laboratory. For nonscience student; not acceptable toward physics major or minor.
- PHYS 104. Physics for Elementary Teachers** (2) I. Introduction to laws of motion, heat flow, electricity, and microscopic structure of matter; concepts used in the statement of these laws and their applications.
- PHYS 105. Physics and Sports** (2) I. Alternate years. Basic physical principles, using athletic activities as examples.

**PHYS 106. Physics of Photography** (2) I. Alternate years. Elementary physics applied to the photographic process. Intended to help photographers better understand their equipment. Topics include: elementary optics of lens systems, macrophotography, exposure control, black and white film, and color theory.

◆ **PHYS 201. College Physics I** (5) I, II, summer. First term of an introductory physics sequence intended for students without calculus. Motion, forces, energy, electricity, magnetism and electrical measurements. Four lecture-recitations and one two-hour laboratory. Prerequisites: algebra and trigonometry.

◆ **PHYS 202. College Physics II** (5) I, II, summer. PHYS 201 continued. Heat; wave motion, sound; optics; atomic and nuclear physics. Four lecture-recitations and one two-hour laboratory. Prerequisite: PHYS 201.

◆ **PHYS 211. University Physics I** (5) I. Introductory calculus-based physics sequence for science and engineering majors. Kinematics in one, two, and three dimensions; Newtonian mechanics; gravitation; heat and thermodynamics. Four lecture-recitations and one two-hour laboratory. Corequisite: MATH 311.

◆ **PHYS 212. University Physics II** (5) II. PHYS 211 continued. Wave motion, sound, optics, electricity and magnetism. Four lecture-recitations and one two-hour laboratory. Prerequisite: PHYS 211. Corequisite: MATH 232.

**PHYS 299. Semester Transition Course** (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.

\***PHYS 301. Modern Physics** (3) I. Topics from relativity; quantum physics; nuclear, atomic and molecular physics. Three lecture-recitations. Prerequisites: one year of calculus and PHYS 201; or PHYS 212. Student must also register for PHYS 313.

**PHYS 303. Electronics** (3) II. Discussion and laboratory practice in networks, transistors, integrated circuits, and associated circuitry. Two lecture-recitations and one three-hour laboratory. Prerequisite: PHYS 201 or PHYS 212.

**PHYS 305. Wave Laboratory** (1) II. Introduction to advanced experimental techniques and data analysis; laboratory investigation of wave phenomena. One three-hour laboratory. Prerequisites: PHYS 212; or PHYS 202 and one year of calculus.

**PHYS 306. Thermodynamics and Statistical Physics** (3) I. Alternate years. Thermodynamic laws, entropy, specific heat, kinetic theory; classical and quantum statistics. Three lecture-recitations. Prerequisites: one year of calculus and PHYS 202; or PHYS 212.

**PHYS 307. Mechanics and Wave Motion** (3) II. Mechanics of periodic systems including: the Kepler problem; driven harmonic oscillator; and coupled oscillators. Fundamentals of wave motion and the propagation of waves in elastic media. Three lecture-recitations. Prerequisites: PHYS 212; or PHYS 202 and one year of calculus.

**PHYS 309. Atomic and Nuclear Physics** (3) I. Phenomenological basis of our understanding of atomic phenomena, fundamental ideas of atomic structure, structure of nuclei and basic decay processes. Three lecture-recitations. Prerequisite: PHYS 301.

\*PHYS 211, 212, 301 for science students with calculus.  
\*\*PHYS 201 and 202 for students without calculus.

**PHYS 313. Modern Physics Laboratory** (1) I. Laboratory work designed to accompany material presented in PHYS 301. One three-hour laboratory. Prerequisite: PHYS 202 or PHYS 212.

**PHYS 321. Recent Progress in Astronomy** (2) I. Alternate years. Pulsar dynamics, gravitational collapse and black holes, galaxies, large-scale structure in the universe, active galaxies and quasars, cosmology. Two lecture-recitations. Prerequisites: PHYS 212; or PHYS 202 and one semester of calculus. Not open to students with credit for ASTR 321.

**PHYS 350. Musical Acoustics** (3) I. Nature of vibration; sound waves, sources of musical sounds – strings, air columns, percussion, voice, noise; acoustics of rooms; recording, reproduction, and synthesis of sound. Not open to student majoring in physical sciences.

**PHYS 400. Selected Topics in Physics** (1-3) On demand. Selected topics not included in existing courses. Scheduling of course may be initiated by department staff or by students. May be repeated as different subjects are offered. Prerequisite: consent of instructor.

**PHYS 401. Methods of Theoretical Physics I** (3) I. Systems with more than one variable quantity; basic field theory; systems governed by rate equations; vibrating systems; Lagrangian and Hamiltonian dynamics; Fourier analysis; special functions arising from physical systems. Prerequisites: PHYS 212 and one year of calculus.

**PHYS 402. Methods of Theoretical Physics II** (3) II. Alternate years. Computational physics with applications of: Laplace's equation, wave and diffusion equations. Complex variable analysis. Rigid body motion and the eigenvalue problem. Prerequisite: PHYS 401.

**PHYS 403. Stellar Structure and Evolution** (3) I. Alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states: red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 301 and consent of instructor. Not open to students with credit for ASTR 403.

**PHYS 406. Modern Optics** (4) I. Principles of physical optics and modern spectroscopy; photodetectors; lasers and electro-optics. Three lecture-recitations and one three-hour laboratory. Prerequisite: PHYS 305.

**PHYS 410. Solid State Physics** (3) II. Alternate years. Continuum and atomic theories of solids, lattice vibrations, specific heat of solids, electron theory of metals and semiconductors. Superconductivity. Three lecture-recitations. Prerequisite: PHYS 307.

**PHYS 411. Physics of Materials** (3) II. Alternate years. Structure and physical properties of ceramics, composites, and metallurgically important alloys. Principles and methods of modern materials analysis. Three lecture-recitations. Prerequisite: PHYS 307.

**PHYS 412. Infrared Molecular Spectra** (2) II. Alternate years. Origin of spectra of simple molecules. Prerequisite: PHYS 301 or course in physical chemistry.

**PHYS 417. Quantum Mechanics** (3) II. Alternate years. Duality of matter and radiation, state functions and interpretation, Heisenberg uncertainty principle, wave equations and principles of wave mechanics, elementary applications of Schrodinger's equation, operator methods, and approximation techniques. Prerequisite: PHYS 401.

**PHYS 418. Electricity and Magnetism I** (3) I. Alternate years. Electric and magnetic fields; Maxwell's theory of electromagnetic field with applications in propagation, absorption, reflection, transmission of radiation. Prerequisites: PHYS 401 and MATH 233.

**PHYS 419. Electricity and Magnetism II** (3) II. Alternate years. PHYS 418 continued with applications to guided waves and physical optics. Relativity. Prerequisite: PHYS 418.

**PHYS 428. Microcomputer Interfacing** (3) I. Medium and large scale integrated circuits such as peripheral interface adapters. UARTS, A/D converters are used to interface a microcomputer to the external world of the laboratory. One class period and two three-hour laboratories. Prerequisites: CS 307 and PHYS 212 or 201.

**PHYS 429. Selected Topics in Microelectronics** (1-3) On demand. An individual, in-depth study of a microelectronic project. Designed to integrate the introductory knowledge gained in PHYS 303 and PHYS 428 into a complete microelectronic system. Arranged. Prerequisites: PHYS 428 and PHYS 303.

**PHYS 433. Philosophy and Physics of Space and Time** (3) II. Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include Zeno's paradoxes, Green's concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Cross-listed in PHIL.

**PHYS 470. Independent Study** (1-2) On demand. Introduction to research in physics and astronomy; projects chosen in consultation with adviser, may include library and laboratory work. Prerequisite: consent of instructor.

**PHYS 490. Special Problems in Physics** (1-3) On demand. Readings and research on recently developing topics chosen to fit needs of students.

## Physical Therapy (PHYT)

**PHYT 301. Human Gross Anatomy** (5) I. Normal and variation of normal human biologic structure of the musculoskeletal, cardiovascular, respiratory and integumentary systems as correlated to function. Laboratory sessions to include cadaver dissection and projected materials. Three hours of lecture, two two-hour laboratories.

**PHYT 304. Principles of Massage** (2) I. Theory, rationale, physiological effects and appropriate application of massage. One hour lecture, one two-hour laboratory.

**PHYT 305. Human Neuroanatomy and Neurophysiology** (4) II. Normal and variation of normal human biologic structure of the central and peripheral nervous systems as correlated with neurophysiological and neuropathological sensory and motor functions and an understanding of pain theories. Laboratory sessions to include cadaver dissection and projected materials. Three hours of lecture, one two-hour laboratory.

**PHYT 309. Functional Anatomy** (3) II. Normal and abnormal dynamic human posture through the examination of internal and external forces acting on the body. Three hours of lecture, one two-hour laboratory.

**PHYT 310. Research Methods** (2) II. Scientific method of problem solving including formulation of a hypothesis, literature search, research design, and methods of data collection and interpretation for the purpose of preparing a manuscript for publication. Three hours of lecture.

**PHYT 311. Pathology and Pharmacology I**

(2) II. Pathogenesis and clinical sequelae of diseases and disorders of bone, joint, and muscle and pharmacology principles of drugs frequently used to treat such conditions. Three hours of lecture.

**PHYT 312. Pathology and Pharmacology II**

(2) I. Pathogenesis and clinical sequelae of diseases and disorders of the cardio-vascular, respiratory, nervous, metabolic, and gastrointestinal systems and the basic principles of drugs frequently used to treat such conditions. Three hours of lecture.

**PHYT 321. Physical Therapy Procedures (4)**

I. Physiological, mechanical, and bioelectrical principles and appropriate technique of application of thermal, high frequency, radiation, traction, and compression modalities used in treating clients. Two hours of lecture, two two-hour laboratories.

**PHYT 326. Applied Medical Sciences (2) II.**

Clinical course and treatment of medical, surgical, and psychiatric disorders with emphasis on conditions frequently treated in physical therapy. Two two-hour lectures and care presentations by physicians of various medical specialties.

**PHYT 331. Therapeutic Exercise I (4) I.**

Kinds of exercises and muscle contraction and principles of body mechanics in client movement activities. Assessment of motor, sensory, joint and level of client functional activities are included. Two hours of lecture, two two-hour laboratories.

**PHYT 381. Clinical Practicum I (2) II.**

Observation and orientation to physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Three hours, Tues. and Thurs. afternoons, arranged. Graded S/U.

**PHYT 401. Human Growth and Development (3) I.**

Eight stages of human life with emphasis on common pediatric neurological disorders and developmental dysfunction; includes developmental assessment and an understanding of the interrelationship of physical, perceptual, motor, social, and cultural factors. Three hours of lecture and one two-hour laboratory.

**PHYT 402. Electrophysiological Assessment and Treatment (2) II.**

Theory and application of electrical currents in assessment and treatment of neuromuscular disorders. Two hours of lecture, one two-hour laboratory.

**PHYT 403. Evaluation and Rehabilitation Principles and Techniques Applied (4) II.**

Theories, philosophies, and principles or rehabilitation of the chronically disabled using case study approach to design a physical therapy plan of care. Two hours of lecture, two two-hour laboratories.

**PHYT 404. Orthopaedic and Sports Trauma (5) I.**

Philosophy, theory, and principles of assessment of joint dysfunction and mobilization of the peripheral joints. Incidence, bio-mechanical analysis and method of determining severity of sports trauma to the trunk and extremities and the application of bandaging and adhesive strapping. Three hours of lecture, two two-hour laboratories.

**PHYT 406. Physical Therapy Trends and Management (2) II.**

Development and organization of the professional association and its relation with other health care participants in the operation of a physical therapy service. Four hours of lecture.

**PHYT 411. Prosthetics and Orthotics (2) I.**

Orientation to management of the amputee and principles of functional bracing. Three hours of lecture.

**PHYT 421. Cardiopulmonary Physical Therapy (3) I.**

Principles of evaluation and the application of therapeutic principals to pathological disorders of the cardiopulmonary systems. Two hours of lecture, one two-hour laboratory.

**PHYT 431. Therapeutic Exercise II (4) II.**

History, development and neurophysiological application of therapeutic exercise to clients with neuromuscular disorders. Two hours of lecture, two three-hour laboratories.

**PHYT 470. Physical Therapy Research Project (2) II.**

Clinically related case study or research project. Consent of faculty member required. Independent study.

**PHYT 481. Clinical Practicum II (2) I.**

Observation and orientation of physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Nine hours/week, Mon., Wed., Fri. afternoons, arranged. Graded S/U.

**PHYT 482. Clinical Practicum III (2) II.**

Observation and orientation of physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Twelve hours/week, Mon., Wed., Fri. mornings, arranged. Graded S/U.

**PHYT 489. Clinical Internship (10) Summer.**

Observation and orientation of physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Two rotations of six weeks duration, 40 hours/week, arranged. Graded S/U.

**Political Science (POLS)****◆ POLS 101. Introduction to Politics (3) I, II.**

Fundamental concepts and problems of politics illustrated with contemporary examples; comparison of modern political institutions in different cultures. Restricted to freshmen and sophomores.

**◆ POLS 201. American Government: Processes and Structure (3) I, II.**

Constitutional basis and development, political processes (parties, nominations and elections, interest groups, public opinion), federalism, and institutions of national government.

**POLS 221. Introduction to Public Administration (3) I, II.**

American administrative system: emphasis on administrative structures and processes; relationship between elected offices and bureaucracy, notion of civil service, modes of managing administrative system.

**POLS 250. Human Nature and Politics (3) II.**

Contemporary and historical perspectives of what man is and can be in relationship to systematic thought about politics. Fundamentals of critical thought and analysis of political controversies. Designed for general students and for those considering political theory as a field.

**POLS 271. Introduction to Comparative Government/International Relations (3) I, II.**

Basic concepts, approaches to, and comparisons of foreign political systems, including political cultures, participation, interest groups, institutions, and processes; essential tools and methods of analysis for the study of foreign governments and international relations.

**◆ POLS 290. Introduction to Political Inquiry (3) I, II.**

Concepts and theories used by political scientists; traditional and behavioral-political science; how political scientists establish and evaluate concepts and theories. Required of all majors; should be taken before any 300-level course. Nonmajors must receive permission of instructor.

**POLS 301. Modern Political Ideologies (3) I, II.**

Nature of political power, freedom, authority, and terrorism as seen in ideologies of democracy, capitalism, liberalism, conservatism, communism, anarchism, socialism, and fascism.

**POLS 302. American Domestic Policy Process (3) I, II.**

Theories of public policy process; models of decision-making analysis; contemporary American domestic policy issues.

**◆ POLS 304. American Political Thought (3) II.**

As reflected in colonial, Federalist, Civil War, and late 19th century political thought.

**POLS 330. Urban Management (3) I.**

Urban problems, focus on available policy alternatives and administrative mechanisms; options in terms of efficiency/effectiveness criteria.

**◆ POLS 331. State and Local Government (3) I, II.**

Influence of culture and socioeconomic factors on state-local politics; state constitutions, municipal corporations and charters; political participation; institutions and processes; intergovernmental relations; policy issues and outcomes in state/local government with special reference to Ohio.

**POLS 333. Politics, Science and Public Policy (3) I.**

Impact of politics and science in making national science policy. Politics of science, science and its use in making public policy, role of science and technology in American and other industrial countries.

**POLS 334. Health and Medical Policy (3) II.**

Policies, issues, process involved in formulation and implementation of health care. Politics of delivery of health care, insurance programs, medical funding, human experimentation.

**POLS 335. Energy Politics (3) I.**

Energy-related problems at the global, national and local levels for policymakers and citizens concerned about supply, price, efficiency, security and resource wars.

**POLS 336. Environmental Politics and Policies (3) II.**

Environmental issues, groups; establishing, implementing, evaluating key environmental policies.

**POLS 337. Food Resource Politics (3) II.**

How domestic and international political processes affect American food production and consumption through governmental legislation, agency regulation, and international agreement in interdependent world.

**POLS 341. Public Opinion (3) I.**

Processes of opinion formation and change, political attitudes, belief systems, socialization, and the operation of public opinion processes in democracy; models of linkages between public opinion and public policies.

**POLS 342. Mass Media and Public Policy (3) II.**

Relationship between media and government in reporting public policy issues; secrecy in government, bias and distortion in news media.

**POLS 345. Legislative Process (3) II.**

Legislative behavior and decision making; forces involved in formation of public policy; proposed reforms of Congress. Prerequisite: POLS 101 or POLS 201 or consent of instructor.

**POLS 346. Presidency and Executive Process (3) I.**

Organization, functions, and powers of office of president and vice president; roles and presidential leadership psychology.

**POLS 347. Judicial Process** (3) I. American judiciary, particularly Supreme Court, as political institution; decision-making process and interaction of courts with rest of political system.

**POLS 351. Western European Politics** (3) II. Political systems and major policy problems of selected European countries. Political culture, governmental structures, political parties, and interest group roles in policy development.

**POLS 354. Governments of Soviet Union and Eastern Europe** (3) I. Governmental structures and ideological forces controlling the political systems and socio-economic life within the Soviet Union and its satellite countries of Eastern Europe. Mission and expansion of Soviet influence beyond its borders.

**POLS 355. Governments and Politics of Latin America** (3) I. Influence of cultural and socio-economic factors on politics; role of major interest groups such as the military, labor, the Catholic Church; political parties and elections; institutions; policy development in selected nation-states.

**POLS 361. Governments and Politics of Middle East** (3) I. Governmental and political processes of Turkey, Iran, Israel, Arab Republic of Egypt, other selected Middle Eastern and North African political systems; major developmental problems of the area.

**POLS 366. Governments and Politics of Asia** (3) II. Representative contemporary Far Eastern and Southeast Asian political systems; how ideology, religion, militarism and other social forces (both endogenous and exogenous) have influenced the development of these policies.

**POLS 368. African Political Systems** (3) II. African struggles for independence; problems of development of selected post-independence political systems and guerilla movements in non-independent territories.

**POLS 371. Introduction to World Politics** (3) I. Contending approaches and paradigms in the study of inter-state behavior and relations; includes examination of the evolution and significance on non-state actors in the international political arena.

**POLS 372. Contemporary World Politics** (3) II. Current global issues and problems such as the arms race, population control, disarmament and East-West, North-South rivalries will constitute the foci of discussion and analysis.

**POLS 374. American Foreign Policy Process** (3) I, II. Nature and conduct of contemporary U.S. foreign policy, with particular emphasis on the roles that the Executive and Legislative branches play in the process. Secondary foci of analysis are: how domestic political problems, interest groups, military alliances, technological and economic forces help shape foreign policy formation and articulation.

**POLS 395. Workshop on Current Topics** (1-4) On demand. Intensive educational experience on such selected topics as government public information work (agencies, departments, executive and legislative office), and other state, local, national, and international political affairs. May be repeated if topics differ, on approval of adviser.

**POLS 400. Topics in Political Science** (1-3) On demand. Subject matter varies. New, one-time courses being offered experimentally. See quarterly schedule for listing. Prerequisite: POLS 101 or POLS 201.

**POLS 402. Western Political Thought I** (3) I. Classics of political philosophy of ancient and medieval period. Major ideas and concepts of western political tradition from Plato through Middle Ages to Machiavelli.

**POLS 403. Western Political Thought II** (3) II. Classics of political philosophy of modern period. Major ideas and concepts of Western political tradition from Hobbes to Marx.

**POLS 404. 20th Century Political Thought** (3) I or II. Contemporary classics of political philosophy. Theories of justice and right of Rawls, Nozick, Hayek, and Strauss; Berlin's pluralism; existentialism; and/or democratic theory.

**POLS 405. Recent American Political Thought** (3) II. American political ideas, ideologies, movements with fundamental social and political philosophies from Civil War to contemporary period. Prerequisite: POLS 304 or consent of instructor.

◆ **POLS 416. Constitutional Law: Powers and Relationships** (3) I. Supreme Court cases relating to U.S. governmental structure, powers, and relationships.

**POLS 417. Constitutional Law: Procedural Rights** (3) I. Due process, right to counsel, search and seizure, electronic surveillance, jury trial.

**POLS 418. Constitutional Law: Substantive Rights** (3) II. Freedom of speech, press, and religion; equal protection of law, travel and privacy; right to vote.

**POLS 419. Jurisprudence** (3) II. Leading theories and theorists of law; Anglo-American thought and practice.

**POLS 420. Administrative Law** (3) I. Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision making. Emphasis on the limitation of administrative discretion and the judicial review of administrative decisions. Prerequisite: consent of instructor.

**POLS 420. Administrative Law** (3) I. Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision making. Emphasis on the limitation of administrative discretion and the judicial review of administrative decisions. Prerequisite: consent of instructor.

**POLS 421. Bureaucratic Politics** (3) II. The role federal bureaucracy plays in public policy process. Policy development; social and political factors that influence the administrative branch of government.

**POLS 422. Survey of Public Administration** (3) I. Fundamental literature, concepts and practices in public administration, including the discussion of administrative leadership, decision making, communication, fiscal and personnel management aspects of public administration. Prerequisite: consent of instructor.

**POLS 423. Comparative Public Administration** (3) II. Comparative study of administrative structures and processes in selected modern and modernizing political systems. Analysis includes the consideration of cultural, legal and political factors influencing the operation of bureaucratic institutions, developmental goals, and the methods of establishing and administering programs of social, economic and political development.

**POLS 424. Supreme Court and Contemporary Issues** (3) II. Alternate years. Selected areas of current concern in constitutional law; substantive knowledge of relevant case law, scholarly legal journals which attempt to predict outcome of future constitutional litigation. Prerequisite: POLS 417 or POLS 418.

**POLS 425. Constitutional Law Advocacy** (3) II. Substantive knowledge of one area in constitutional law; practical skills necessary for constitutional adjudication; techniques of legal research, writing appellate court briefs, and appellate court advocacy. Prerequisites: POLS 416 and POLS 417, or POLS 418 and permission of instructor.

**POLS 430. Politics of Metropolitan Areas** (3) Summer. Socio-economic and political factors affecting the governance of metropolitan areas with an emphasis on politico-administrative institutions, processes, and the major policy issues and their consequences for the management of metropolitan affairs.

**POLS 431. Regulatory Policy** (3) II. Development of regulation as instrument for correcting deficiencies of economic market, role in achieving societal purposes, problems of regulatory practice.

**POLS 434. Sexual Politics** (3) I. Socialization to, maintenance of, and change in gender political roles; patterns of dominance and submission in cross-cultural perspective.

**POLS 440. Political Parties and Voter Behavior** (3) II. Democracy and political parties, party organization, primaries and conventions for nomination, campaigns and elections, patterns of election participation and factors affecting the voter's decision making.

**POLS 443. Mass Media in Politics** (3) I. Techniques of modern election campaigns, management: use of research and voter profiles in developing strategy, tactics of mass persuasion: professional public relations in television and the electronic media.

**POLS 452. Political Violence and Revolution** (3) II. Seminar offered alternate years. Theories about causes, processes, and consequences of violence as instrument of political competition and social change. Open to advanced social science undergraduate and graduate students or by consent of instructor.

**POLS 454. Soviet Political System and Institutional Development** (3) III. Historical, cultural and ideological forces that have shaped and will continue to shape the development of Soviet political institutions, including: traditional charismatic, and rational-legal authority structures; Marxism as a westernizing/modernizing factor; the Russification of Marxism; Russia under the old regime; Rise of a bureaucratic "class"; socialist legality and paternalism.

**POLS 458. Soviet Foreign Policy** (3) II. Soviet foreign policy in post-war era; domestic and international determinants and consequences for Soviet-Western relations, socialist bloc, and third world.

**POLS 459. Intergovernmental Relations** (3) On demand. Public policy issues and interaction with levels of government in American federal system. Dynamics of intergovernmental relations, grant-in-aid, revenue sharing, and federal relationships.

**POLS 460. Politics and Issues of World Development** (3) II. Political and economic modernization problems of the developing countries with focus on issues of stability yet with equitable development and social justice within these nations and cross-national issues such as foreign aid, nuclear technology transfer, women in development, population explosion, and other selected topics.

**POLS 470. Individual Readings** (1-3) I, II. On demand. Supervised individual readings to meet student's need for extended reading in familiar areas or for exploration in fields not covered by courses. Prerequisite: consent of supervising instructor. May be repeated to nine hours.

**POLS 473. International Law** (3) On demand. History, nature, sources, and applications; relationship between law and society at international level.

**POLS 475. International Organization** (3) On demand. Major problems facing United Nations and other international organizations.

**POLS 491. Seminar for Intern** (3). Required for students planning internships. Survey and analysis of literature dealing with practice political experiences. Use of biographical material as sources.

**POLS 492. Field Study** (1-3) I, II, summer. For students working on political internship programs and political campaigns. May be repeated to six hours.

**POLS 495. Honors Seminar in Contemporary Political Science** (4) I, II. Political science as discipline and profession; forms of political inquiry and research; scientific and methodological orientations toward values and scholarship; public and professional status of political science. Prerequisite: permission of honors committee. May be repeated to eight hours.

## Popular Culture (POPC)

◆ **POPC 160. Introduction to Popular Culture** (3) I, II, summer. Basic theories of, approaches to, and topics within popular culture; several selected topics and use of various theories and approaches.

◆ **POPC 165. Popular Culture and Media** (3) I, II, summer. Some of the ways in which mass media (TV, film, recording industry, print, radio) have affected modern American culture. Media relationships and interactions.

◆ **POPC 220. Introduction to Folklore and Folklife** (3) I, II, summer. Study and collecting of folklore; ballads, myths, tall tales, heroes, folk medicines, superstitions; proverbs, arts, and crafts.

**POPC 231. Studies in Popular Culture** (1-3) I, II, summer. Study of theme, era, or problem of popular culture. Subject matter designated in class schedule. May be repeated once if topics are different.

**POPC 240. History of Popular Culture** (3) I, II, summer. From classical world to present; relationship between society and its popular culture; constant needs of man such as play, sex, ritual, etc.; changing needs of man in changing society.

◆ **POPC 250. Introduction to Popular Film** (3) I, II, summer. Popular film as mass entertainment medium; Hollywood studios, popular film formulae, genres, relationships between popular films and movie-going audience; viewing of appropriate films.

**POPC 270. Introduction to Contemporary Popular Literature** (3) I, II, summer. Popular literary formulae, publishing industry, relationship between popular literature and reading public; functions of popular literature in society.

**POPC 280. Introduction to Popular Music** (3) Relationship between music world and listening-viewing audience; musical styles, trends in popular music, popular performers and entertainers and what they reveal about popular culture; appropriate music listening.

**POPC 290. Television as Popular Culture** (3) I, II, summer. Relationship between popular television programming and American society; viewing of appropriate television.

**POPC 350. Advanced Studies in Popular Film** (3) I. In-depth study of particular aspect of popular film: single genre, particular director, specific studio, etc. May be repeated once if topics are different; viewing of appropriate films. Two-hour lecture, two-hour lab.

**POPC 355. Studies in History of American Popular Film** (3) II. Specific period in American popular film: silent era, films of Depression, films of post World War II, etc. May be repeated once if topics are different; viewing of appropriate films. Two-hour lecture, two-hour lab.

**POPC 370. History of Popular Literature** (3). Alternate years. Detective, science fiction, western, mystery, best sellers, poetry, magazine fiction. Prerequisite: any 200-level literature course or permission of instructor.

**POPC 380. Contexts of Popular Music** (3) I, II, summer. In-depth investigation into single aspect of popular music: specific popular music genres, specific musical themes, popular music industry, etc. May be repeated to eight hours if topics differ. Prerequisite: POPC 280.

**POPC 390. Electric Media** (3). Alternate years. Cultural media theory as related to aural and visual electric media, especially radio and television. Impact of these media on contemporary culture. Prerequisite: one course in mass media or permission of instructor.

**POPC 395. Workshop on Current Topics** (1-3). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within expanded time format. May be repeated if topics differ, on approval of adviser.

◆ **POPC 424. Topics in Folklore** (3) II, summer. In-depth study of single topic. May be repeated once if topics are clearly different. Prerequisite: POPC 220 or permission of instructor.

**POPC 426. Popular Entertainments** (3). Alternate years. Cultural significance of popular entertainments, past and present; circuses, carnivals, parades, vaudeville, professional and amateur sports, camping, etc. Prerequisite: POPC 160 or POPC 165.

**POPC 460. Popular Culture Advanced Studies** (3) II, summer. In-depth study of particular problem: development of hero in popular arts, cultural analysis of popular film, cultural analysis of popular music, etc. May be repeated once if subject matter is different. Prerequisite: POPC 165.

**POPC 480. Senior Seminar in Popular Culture** (2) Alternate years. Interdepartmental seminar for seniors in POPC program. Selected topics approached from several points of view. Prerequisites: senior standing and major in POPC or in discipline represented in POPC program.

**POPC 490. Problems in Popular Culture** (1-3). For advanced student. Independent study. Prerequisite: consent of director of POPC program to proposal approved by staff member three weeks prior to end of quarter; and 6 hours POPC courses. May be repeated to eight hours.

## Psychology (PSYC)

◆ **PSYC 201. General Psychology** (4) I, II, summer. Scientific approaches to the study of behavior of organisms. Application to personal and social behavior. Open to freshmen psychology majors.

**PSYC 231. Research Methods in Psychology** (4) I, II. Experimental and non-experimental techniques for investigating psychological phenomena. For non-psychology majors. Three lecture hours; two laboratory hours. Prerequisite: PSYC 201.

**PSYC 240. General Seminar** (1-3) I, II. Specific content areas offered depends on demand and interest of staff. May be repeated twice. Prerequisite: consent of instructor.

**PSYC 270. Quantitative Methods I** (3) I, II, summer. Principles of measurement. Quantitative analyses of behavioral measures, including measures of typicality, individual differences, correlational methods and tests of significance. Two one-hour lectures and a two-hour lab. Prerequisite: PSYC 201 or consent of instructor.

**PSYC 290. Introduction to Laboratory Methods in Psychology** (4) I, II. Introduction to research methods used in laboratory and natural settings. Includes planning the research, collecting and interpreting the data, and communicating the results in both oral and written forms. Three one-hour lectures and one two-hour laboratory. Prerequisites: PSYC 201 and 270.

**PSYC 301. Brain Mechanisms of Behavior** (4) I, II. Brain structure and function in organization of consciousness, perception, motivation and learning, sleep, dreaming, memory, drugs, glands, personality, electrical stimulation of brain. Laboratory hours by arrangement. Prerequisites: PSYC 201 and 290, or consent of instructor.

**PSYC 302. Educational Psychology** (3) I, II. (See EDFI 302) Concepts and factors affecting application of psychological principles to the educative process. No credit for both EDFI and PSYC 302. Prerequisite: PSYC 201.

◆ **PSYC 303. Psychology of Child Development** (3) I, II. Major concepts, theories, and principles of child development. Coverage is from conception until adolescence. Prerequisite: PSYC 201.

**PSYC 304. Adolescent Development** (2) II. Major concepts, theories, and principles of adolescent development. Prerequisite: PSYC 201.

◆ **PSYC 305. Psychology of Personality Adjustment** (2) I, II, summer. Problems of personal adjustment. Related problems of theory and measurement of personality. Prerequisite: PSYC 201.

◆ **PSYC 306. Psychology of Gender** (3) I. Psychological characteristics of women and men; personality, adjustment, identity formation, intellectual processes, sexuality; theories and data on gender-development.

◆ **PSYC 307. Psychology of Human Sexuality** (3) I, II, summer. Sexual physiology, psychosocial aspects of sexual behavior, sexual dysfunction and therapy, comparative sexual behavior.

**PSYC 308. Introduction to Clinical Psychology** (3) II. Models and roles associated with delivery of mental health services; major conceptions of psychological assessment and treatment. Prerequisite: PSYC 201.



**PSYC 309. Psychology of Aging (3) II.**

Discussion of major theories of adult development; description of how biological, cognitive, personality, and social-psychological processes interact to produce development; emphasis on seeing how these processes occur in adults' everyday lives. Prerequisite: PSYC 201.

**◆ PSYC 311. Social Psychology (3) I, II,**

summer. Social behavior covering theoretical issues and recent empirical findings: social influence and conformity processes, attitudes and attitude change, interpersonal attraction, social perception, group processes, sexual behavior, environmental influences on social behavior. Prerequisite: PSYC 201 or SOC 101.

**PSYC 312. Principles of Social Interaction**

(2) II. Theoretical issues and recent empirical findings: animal social behavior, pro-social behavior, aggression, group processes, social exchange processes, and social psychology in changing world. Prerequisite: PSYC 201 or SOC 101.

**PSYC 313. Research in Social Psychology**

(4) II. Field and laboratory research techniques in social psychology, attitude change, conformity, attraction, environmental effects on social behavior, aggression, group processes. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270, 290 and 311.

**PSYC 320. Conditioning (4) I.** Classical conditioning and instrumental learning from empirical and theoretical point of view. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

**PSYC 321. Human Learning and Memory**

(4) II. Principles and theories of human learning and memory, applied to the acquisition of knowledge and skills. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

**PSYC 322. Psychology of Thinking (4) I, II.**

Theory and research on the nature of human thinking, problem solving, reasoning, concept formation, and language. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

**PSYC 324. American Sign Language of Deaf (3) I, II.**

Basic vocabulary and grammatical structure of the visual language system used by deaf persons in North America. Implications of deafness for language and communication, psycho-linguistic studies of Sign.

**PSYC 328. Psychophysiology (4) I, II.** Laboratory course in psychophysiology; relationship between psychological states and physiological responses in humans; conditioning of autonomic responses, orienting responses, psychosomatic relationships and biofeedback, detection of deception. Four lecture hours, laboratory by arrangement. Prerequisites: PSYC 270 and 290.

**PSYC 330. Psychobiology of Emotions and Motivation (4) II.**

Biological causes of motivated behaviors such as sleep, hunger, thirst, fear, aggression, and sexual behavior; how motivated behaviors and related emotional states are organized in brain, as elucidated by electrical and chemical stimulation and ablation of living brain. Prerequisites: PSYC 270 and 290, consent of instructor.

**PSYC 340. Sensation and Perception (4) II.**

Measurement, development and neurophysiological mechanisms of sensory and perceptual processes. Emphasis on vision and hearing. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

**◆ PSYC 352. Quality of Work Life (4) II.** Impact of organizational environments on individuals and individual behavior. Topics include job design, leadership, organizational climate, job satisfaction and work motivation. Prerequisite: PSYC 270 or consent of instructor.

**PSYC 354. Assessment of Work Effectiveness (3) II.**

Emphasis on the design, measurement, and evaluation of human and machine performance and productivity. Assessment of factors related to training, efficiency, and safety. Prerequisites: PSYC 270 and one other course in PSYC, or consent of instructor.

**PSYC 370. Quantitative Methods II (3) I, II.**

Analysis of variance and other multi-variate methods for analyzing behavioral measurements. Prerequisite: PSYC 270.

**PSYC 395. Workshop on Current Topics**

(1-5) On demand. Intensive educational experience on selected topics. Typically an all-day or similar concentrated format. Requirements usually completed within time format. May be repeated on approval of adviser.

**PSYC 401. History of Psychology (3) I.**

Selected topics, reading of original sources. Psychopathology, animal psychology, behaviorism, cognitive psychology, personality theory, others. Prerequisite: PSYC 201 or consent of instructor.

**PSYC 403. Personality Theory (3) II.** Scientific constructs in personality theory; contemporary theories with historical antecedents; assessment of relationship to general psychology. Prerequisite: eight hours in PSYC.

**◆ PSYC 405. Psychology of Abnormal Behavior (3) I, II, summer.**

Data and concepts used in understanding, labeling, and modifying deviant behavior. Prerequisite: PSYC 201.

**PSYC 406. Behavior Pathology in Children**

(3) II. Major behavioral disorders of childhood: description, etiological implications, treatment issues, approaches and problems, and related research. Prerequisite: PSYC 201 or consent of instructor.

**PSYC 421. Psychology of Language (3) II.**

Theoretical and empirical issues in psycholinguistics, speech perception, and language development. Prerequisite: PSYC 201 or consent of instructor.

**PSYC 425. Community Mental Health (3) I,**

summer. Development, concepts and current models in community mental health; individual and system-centered approaches that promote health and prevent psychological maladjustment; federal, state, and county programs. Prerequisite: PSYC 201 or consent of instructor.

**PSYC 431. Mental Health Worker Training (4)**

I. One of two prerequisites for field placement as mental health worker, taken simultaneously with PSYC 432. Relationship enhancement and behavioral analysis and intervention skills. Field experiences. Prerequisites: PSYC 201 and consent of instructor.

**PSYC 432. Principles of Mental Health Work**

(4) I. Exposure to models and roles associated with delivery of mental health services. Participation with practicing clinical "team"; field experiences. Prerequisites: PSYC 201 and consent of instructor.

**PSYC 433. Mental Health Worker Practicum I**

(3) II. Students engage in those mental health activities they trained for during previous quarter. Includes placement in one of variety of mental health settings. Prerequisites: PSYC 431 and 432 and consent of instructor.

**PSYC 434. Mental Health Worker Practicum II**

(4) II. Field experience for mental health worker. Student increases experience with broad range of mental health problems working in community mental health setting. Case study presentation. Prerequisites: PSYC 431 and 432 and consent of instructor.

**PSYC 437. Field Study: Deafness and ASL**

(1) I. Orientation to deafness and on-site observation of educational approaches and communication methods used at elementary, secondary, and post-secondary levels by programs for deaf children. Conducted at Gallaudet College, Washington, D.C., between semesters. Prerequisites: PSYC 324 or equivalent and consent of instructor.

**PSYC 440. General Seminar (1-4) I, II, summer.**

Specific content areas offered depends on demand and interest of staff. May be repeated three times. Prerequisite: consent of instructor.

**◆ PSYC 452. Personnel Selection (4) I.**

Methods of selection and assessment in industrial and other organizations. Includes recruitment, hiring, promotion, etc. Compliance with fair employment and equal employment opportunity regulations. Prerequisite: PSYC 201.

**PSYC 454. Interviewing (3) II.**

Laboratory exercises in administering and responding to interviews differing in structure, behavior, decisions, and interrelationships within interviews, validity and reduction of bias. Prerequisite: PSYC 201.

**PSYC 455. Stress Factors of Work (3) I.**

Sources and effects of psychological stress at work and research on stress reduction. Topics include perceived work loads, role demands and ambiguities, job involvement, and career stresses such as those in dual-career families.

**PSYC 460. Introduction to Psychological Testing (3) I, II.**

Theory and methods of measuring human behavior. Basic measurement principles and applications; representative standardized tests of intelligence, interest, aptitude and personality. Prerequisites: PSYC 201 and 270 or equivalent.

**PSYC 490. Special Problems in Psychology**

(1-3) I, II, summer. Supervised independent minor research or intensive reading on selected problems. No student may register for course without written approval of staff member concerned. May be repeated to six hours.

**PSYC 495. Senior Honors Seminar (3) I.**

Seminar in general psychology for senior major. Student required to plan and carry out research project under direction of faculty member. Prerequisite: senior major, approval by department undergraduate committee.

**PSYC 496. Senior Honors Seminar (3) II.**

Seminar in general psychology for senior major. Student required to plan and carry out research project under direction of faculty member. Prerequisite: senior major, approval by department undergraduate committee.

**Radio – Television – Film (RTVF)**

(See speech communication)

**Recreation and Dance (RED)**

(See health, physical education and recreation)

**Rehabilitation Counseling (REHB)**

**REHB 401. Introduction to Rehabilitation Services (3).** Characteristics and principles of the rehabilitation process; Disabilities and agencies serving the disabled.



## Romance Languages (ROML)

**ROML 200. European and Latin American Cinema** (3). Films of cultural and literary significance from Mediterranean and Latin American countries seen through study of selected topics, themes, or movements. Taught in English. Includes viewing of films with subtitles.

**ROML 262. African Literature In Translation** (3). Literary masterpieces from or about Africa, including negritude movement. Works originally written in romance languages. Does not count toward French or Spanish major or minor.

**ROML 470. Readings in Romance Languages and Literature** (1-3). Independent reading for advanced students wishing to conduct comparative study in particular period, author or authors, problem, or genre. Prerequisites: consent of chair of department and instructor.

## Russian (RUSN)

Entering students who had Russian in high school should take the placement test during summer preregistration or prior to enrollment in a course.

**RUSN 100. Introduction to Language Study: Russian** (1). On-demand. Lecture-reading course in English introducing students to the cultural development of the Russian language.

**RUSN 101. Elementary Language and Culture I** (4) I. Cultural approach to beginning language study in the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

**RUSN 102. Elementary Language and Culture II** (4) II. RUSN 101 continued. Four class periods and laboratory practice each week. Prerequisite: RUSN 101, or by placement.

**RUSN 201. Intermediate Russian I** (3) I. RUSN 101-102 continued. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: RUSN 102, or by placement.

**RUSN 202. Intermediate Russian II** (3) II. RUSN 201 continued. Three class periods and laboratory practice each week. Prerequisite: RUSN 201, or by placement.

**RUSN 303. Introduction to Scientific Russian** (2) II. Reading and grammar designed for science-oriented students who wish to develop an effective reading knowledge of scientific Russian. Prerequisite: RUSN 202.

**RUSN 311. Russian Literature: From Beginnings to Dostoevsky** (3) I. Literary trends from 11th to mid-19th century; medieval and baroque periods, 18th century classicism and sentimentalism, and the Golden Age. Writers include Pushkin, Gogol, Goncharov, Lermontov, and Turgenev. Lectures in English. Open to nonmajors who will read assigned works in translation.

**RUSN 312. Russian Literature from Dostoevsky to Present** (3) II. Social, political and cultural trends of pre- and post-revolutionary periods. Writers include Dostoevsky, Tolstoy, Chekhov, Gorki, Zoshchenko, Bulgakov, Pasternak and Solzhenitsyn. Lectures in English. Open to nonmajors who will read assigned works in translation.

**RUSN 315. Russian Culture** (3) II. Culture and civilization of the Russian people from their origins to the recent past. Lectures, audio-visual presentations and readings in English.

**RUSN 316. Readings in Russian Culture** (2) On demand. Language, syntax and topics of academic and literary Russian in the natural sciences, social sciences and humanities. Prerequisite: RUSN 202.

**RUSN 317. Composition and Conversation I** (3) I. Intensive oral and written practice; emphasis on mastery of basic structural patterns employed in conversation and writing. Prerequisite: RUSN 202, or by placement.

**RUSN 318. Composition and Conversation II** (3) II. RUSN 317 continued. Prerequisite: RUSN 317.

**RUSN 319. Journalistic Russian** (2). On demand. Practice in the language and syntax on contemporary Russian journalism; expository prose, newspapers, journals, monographs, magazines, etc. Prerequisite: RUSN 202.

**RUSN 331. Workshop in Translation** (1-3). On demand. Individualized and/or small group work in translation of scientific, technical or business writing, or other types of expository prose in the student's area of specialty. May be repeated to six hours. Prerequisite: RUSN 202.

**RUSN 401. Russian Poetry** (3). On demand. Russian lyric from the mid-18th century through contemporary Soviet verse. Prerequisite: RUSN 202.

**RUSN 402. Russian Novel** (3) I. Detailed study of the great tradition of the Russian novel. Primary readings consist of authors such as Karamzin, Pushkin, Gogol, Turgenev, Tolstoy, Dostoyevsky, Gorky, Solzhenitsyn. May be repeated for credit when offered with different content. Prerequisites: RUSN 311 and 312, or permission of instructor. Open to nonmajors who will read assigned works in translation.

**RUSN 403. Russian Drama** (3) II. Major works of Russian dramatic literature as exemplified by Polotski, Fonvizin, Griboyedov, Pushkin, Ostrovski, Turgenev, Tolstoy; emphasis on Chekhov and Moderns. Prerequisites: RUSN 311 and 312, or permission of instructor. Open to nonmajors who will read assigned works in translation.

**RUSN 415. Cultural and Literary Aspects of Soviet Film** (3). On demand. Soviet film both as visualization of Russian literature and as instrument of social and political persuasion through various esthetics – expressionism, socialist realism, psychological realism.

**RUSN 417. Advanced Composition and Conversation** (3). On demand. Development of increased facility in written composition and the spoken language. Grammatical structure and levels of style in writing and colloquial idiom in spoken dialogue. Prerequisite: RUSN 318.

**RUSN 432. Russian Folklore** (3). On demand. Survey of major genres of Russian folk literature and culture, and their influence on language and literature. Prerequisite: RUSN 102, or permission of instructor. Open to nonmajors who will read assigned works in translation.

**RUSN 480. Selected Topics** (2). On demand. Topic chosen to meet curriculum needs and student requests. May be repeated to six hours. Prerequisite: RUSN 202.

**RUSN 491. Selected Topics** (2). On demand. Independent reading for the advanced student. Prerequisite: arrangement with instructor and consent of department chair prior to registration.

## Social Science (SOSC)

†**SOSC 101. Introduction to the Social Sciences** (3) I, II. Fundamental concepts and methods in the social sciences.

†**SOSC 289. Human Services Practicum** (3-4) II. Supervised field experience in an approved agency combined with a seminar designed to integrate theory and practice. Capstone course to the human services curriculum.

## Social Work (SOWK)

◆**SOWK 110. Survey of Social Services** (2) I, II, summer. Social service programs; functions of social workers within these programs.

**SOWK 220. Observation and Interviewing in Social Work** (3) I, II. Development of observational, interviewing and recording skills through classroom experiences and volunteer experiences in community social agencies. Prerequisite: SOWK 110.

**SOWK 225. Human Behavior and the Social Environment** (2) I, II. Impact of biological, psychological, and socio-cultural systems on human development and behavior. Prerequisite: junior standing.

**SOWK 227. Social Work: Ethnic Perspective** (3) I, II. Issues and concepts important to understanding problems surrounding ethnicity and relationship to social work. Prerequisite: sophomore standing.

**SOWK 321. Social Welfare Institutions** (3) I. Social welfare as social institution; history, developmental forces, value systems, relationships between, and various roles of public and private agencies. Prerequisite: SOWK 220.

**SOWK 322. Social Policy and Social Services** (3) II. Social problems, social policy, and social services as interrelated areas. Basic models for evaluating and influencing social policy. Prerequisite: SOWK 321.

**SOWK 325. Social Work Practice I** (3) I, II. Components of generic social work practice; problem identification, selection of interventive techniques, development of skills. Prerequisites: SOWK 321, junior standing, and social work major.

**SOWK 326. Social Work Practice II** (3) I, II, summer. Social work practice models, strategies for community organization and change. Prerequisites: SOWK 325, junior standing, and social work major.

**SOWK 330. Rural Social Work Assessment** (3) I, summer. Issues involved in rural social work practice. Visitation of selected rural agencies, assessment of needs and services in selected agencies. Prerequisites: SOWK 220 and permission of instructor.

**SOWK 332. Law for Social Workers** (3) I. Legal issues related to social work; court procedure, crime, poverty, income maintenance, and family law. Prerequisite: junior standing.

**SOWK 400. Topics in Social Work** (1-3). On demand. Courses being considered for offering on regular basis. May be repeated.

**SOWK 423. Field Instruction I** (6) I, II, summer. Experience working in selected social agency under supervision. Emphasis on practice rather than observation. Weekly seminar required. Application deadline: May 15 of school year before placement. Prerequisites: senior standing, social work major, and 2.5 GPA in core courses. Graded S/U.

**SOWK 424. Field Instruction II** (6) I, II, summer. SOWK 423 continued. Student works in selected social agency under supervision. Further development of practice skills. Taken concurrently with SOWK 423. Prerequisites: senior standing, social work major, and 2.5 GPA in core courses. Graded S/U.

**SOWK 470. Independent Study** (1-3) I, II, summer. Student designs and carries out study or special project in area of interest. Prerequisite: junior standing, social work major, faculty sponsor, and permission of program director. May be repeated up to six hours.

## Sociology (SOC)

◆ **SOC 101. Principles of Sociology** (3) I, II, summer. Elements and concepts of social organization, social change, and group relationships.

◆ **SOC 202. Social Problems** (3) I, II, summer. Sociological analysis of contemporary social problems. Prerequisite: SOC 101.

◆ **SOC 210. Sociology of Religion** (3). Role of religion in society; influence of religion upon society and effects of social structure on religious beliefs. Prerequisite: SOC 101.

◆ **SOC 231. Cultural Anthropology** (3). Basic concepts and objectives in study of culture. Range of cultural phenomena and approaches to their study.

**SOC 300. Topics in Sociology** (1-3). On demand. Courses being considered for offering on regular basis. See class schedule for listing. May be repeated. Prerequisite: SOC 101.

◆ **SOC 301. Social Psychology** (3). Social behavior; process of interaction and interpersonal influence. Prerequisites: SOC 101 and PSYC 201.

**SOC 302. Introduction to Classical Sociological Theory** (3). Major theories and concepts of sociology. Prerequisite: SOC 101.

**SOC 303. Introduction to Contemporary Sociological Theory** (3). Concepts and frames of reference of major contemporary theories. Prerequisite: SOC 101.

**SOC 311. Community and Urban Sociology** (3). Communal life from beginnings in folk society; contemporary urban-metropolitan communities, folk urban contrasts, and community types. Prerequisite: SOC 101.

**SOC 312. Population and Society** (3). Population growth and distribution; bearing on current economic, political, and social problems. Prerequisite: SOC 101 or consent of instructor.

**SOC 314. Popular Music and Society** (3). Formal organization of music industry and its impact on American society. Each facet of the industry examined: performer, production, marketing, record buying. Prerequisite: SOC 101.

**SOC 315. American Society** (3). Models of contemporary American society, dominant value orientations. Prerequisite: SOC 101.

◆ **SOC 316. Minority Groups** (3). Problem and adjustment of minority groups in American society; conditions that favor and hinder acceptance of such minorities as integral elements in national population. Prerequisite: SOC 101.

◆ **SOC 317. Social Stratification and Poverty** (3). Inequalities in distributions of wealth, power, and prestige in societies. Types of systems of inequality; caste, estate, class. Consequences of inequalities for society as whole and for segments of society; educational-occupational opportunities; racial-ethnic relations, social mobility, social change. Prerequisite: SOC 101.

**SOC 318. Social Organization** (3). Sociological concepts, theories, and models of contemporary complex organizations; impact of social psychological factors on organizational effectiveness, relationship of systems theory to problems of organizational design and behavior. Prerequisite: SOC 101.

**SOC 331. Contemporary Cultures** (3). Culture area(s) emphasized varies with staff and student interest. Area announced in schedule of classes (Africa, Europe, Near East, Native North America, Latin America, Asia, Pacific). May be repeated to 12 hours. Prerequisite: SOC 231 or consent of instructor.

**SOC 332. Archaeology** (2). Prehistory of man; early cultural development throughout world. Prerequisite: SOC 231.

**SOC 334. Anthropology and Contemporary Human Problems** (3). Contemporary cultures as collective patterns of living and attempts to create more human way of life. Methods of depicting and interpreting cultural codes of behavior, thought, feeling. Prerequisite: SOC 231 or consent of instructor.

**SOC 335. Medical Anthropology** (3). Cross-cultural study of health and disease patterns in human populations. Emphasis on influence of cultural and ecological factors in the response to illness in traditional, rural, ethnic, and urban communities.

**SOC 341. Juvenile Delinquency** (3). Analysis and processes of development, treatment, prevention, and control of juvenile delinquency. Prerequisite: SOC 101.

**SOC 342. Deviance and Social Control** (3). History of attempts to define and explain deviant behavior. Social conditions and processes associated with careers of deviants; relationship of deviancy to problems of social control. Prerequisite: SOC 101.

**SOC 344. Deviant Sexual Behavior** (3). Sociological perspective on sexual behaviors stigmatized in U.S.; such aspects as prevalence, social contexts of occurrence, effects on society, sources and impacts of societal reaction, especially criminal law. Prerequisite: SOC 101.

**SOC 352. Collective Behavior** (3). How new social groupings and order arise from unstructured situations. Behavior of such collectivities as riots, mobs, and crowds. Prerequisite: SOC 101.

**SOC 361. The Family** (3). Traditional and contemporary family types; current similarities and differences of family organization in various cultural environments. Prerequisite: SOC 101.

**SOC 369. Introductory Statistics** (3) I, II. Data presentation, measures of dispersion, correlation, regression, probability, probability distributions, sampling distributions, hypothesis testing, and analysis of variance. Prerequisite: SOC 101.

**SOC 370. Introductory Methodology** (3) I, II. Research techniques, measurement, sampling, questionnaire, interview schedules, and data processing. Data coding, keypunching, and computer tape files. Prerequisite: SOC 101.

**SOC 371. Introductory Research Design** (2). Methods and applications of research on social phenomena; problems that arise in social sciences. Prerequisites: SOC 369 and 370.

**SOC 395. Workshop on Current Topics** (1-4). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser. Graded S/U.

**SOC 404. Social Gerontology** (3). Problems of aged in contemporary society. Social gerontology as field of interest of interdisciplinary nature; emphasis on socio-economic approach. Prerequisite: SOC 101.

**SOC 414. Society and the Environment** (3). Present issues and problems of human environment from a sociological perspective. Special emphasis on analysis of the present problems of resources, pollution, technology, population, consumerism and the use of energy.

**SOC 415. Industrial Sociology** (3). Social impact of industrialization; interrelationships among industry, business, community, and society. Prerequisite: SOC 101.

**SOC 416. Political Sociology** (3). Political behavior in society from standpoint of both classical and contemporary sociology. Prerequisite: SOC 101.

◆ **SOC 417. Sociology of Sport** (3). Sociological concepts and theories to investigate sport as social institution and relationship to other social institutions; organizational theory and small group research applied to sport; social psychological aspects of sports. Prerequisite: SOC 101.

◆ **SOC 418. Social Change and Development** (3). Processes of social change and rational direction of society. Prerequisite: SOC 101.

◆ **SOC 441. Criminology** (3). Nature, causes, treatment, and prevention of crime. Prerequisite: SOC 101.

**SOC 442. Corrections** (3). Socio-psychological approach to origins and development of federal, state, and local penal institutions. Prerequisite: SOC 101.

**SOC 443. White Collar and Organized Crime** (2). Criminal behavior within and by organizations; analyses of employee theft, graft, corporate crime; governmental crime, professional crime, syndicated crime. Prerequisite: SOC 101.

**SOC 449. Field Work, Corrections** (2). Field work experience in approved corrections agency. Arrangements (usually one full day per week plus individual conferences and group seminar for two consecutive quarters) must be approved in advance by instructor. May be repeated once. Prerequisite: senior standing. Graded S/U.

**SOC 453. Ethnological Theory** (3). Anthropological theories and varying uses of concept of culture in social sciences. Prerequisites: SOC 231 and consent of instructor.

**SOC 460. Family and Sex Roles** (3). Theoretical and empirical literature on family and sex roles; socialization; changing nature of women's and men's roles and prospects for future. Institutional sources of women's and men's roles in other cultures. Prerequisite: SOC 101.

**SOC 463. Leisure, Work, and Retirement** (3). Sociological analysis of three aspects of life cycle. Crisis in personal life occasioned by each of these stages and by transitions from one stage to another. Prerequisite: SOC 101.

**SOC 470. Readings, Research and Internship** (1-8) I, II, summer. Supervised independent work in selected areas. Extensive reading of more advanced literature, planned research, or field placement in an approved setting. May be repeated, but cannot exceed a total of 12 hours. Prerequisites: junior standing and a minimum of 12 hours of accumulated credit in regularly scheduled SOC courses. Permission of instructor and department chair required. Graded S/U.

**SOC 480. Senior Seminar** (3). On demand. Selected topics in sociology. Recent seminars have included sociology of women, individual and sociology, contemporary social critics, the family, alternatives and critiques. May be repeated. Prerequisites: SOC 101 and consent of instructor.

## Spanish (SPAN)

Entering students who had Spanish in high school should take the placement test during summer preregistration or prior to enrollment in a course.

- ◆ **SPAN 101. Elementary Spanish I** (4) I, II. Beginning oral-aural study of language with attention to grammar. Four class periods and scheduled oral practice each week.
- ◆ **SPAN 102. Elementary Spanish II** (4) I, II, III. SPAN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: SPAN 101 or one year of Spanish in high school.
- SPAN 111. Hispanic Cultural Series I** (4) I, II. Study of Hispanic cultures, combined with development of language awareness essential for reading comprehension. Discussion in English. No laboratory.
- SPAN 112. Hispanic Cultural Series II** (4) I, II. Study of Hispanic cultures, combined with development of language awareness essential for reading comprehension. Discussion in English. No laboratory. Prerequisite: SPAN 101 or SPAN 111 or one year of Spanish in high school.
- SPAN 141. Conversational Spanish for Medical Personnel** (3). Practice in speaking and understanding oral Spanish; essential expressions, questions, and directions needed by medical personnel.
- ◆ **SPAN 201. Intermediate Spanish I** (3) I, II. Grammar review. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: SPAN 102 or two years of Spanish in high school.
- ◆ **SPAN 202. Intermediate Spanish II** (3) I, II. SPAN 201 continued. Three class periods and laboratory practice each week. Prerequisite: SPAN 201 or three years of Spanish in high school.
- ◆ **SPAN 211. Hispanic Cultural Series III** (3) I, II. Development of reading comprehension in Spanish using cultural materials concerning Spain. Conducted in English. Prerequisite: SPAN 102 or two years of Spanish in high school.
- ◆ **SPAN 212. Hispanic Cultural Series IV** (3) I, II. Development of reading comprehension in Spanish using cultural materials concerning Spanish America. Conducted in English. Prerequisite: SPAN 211 or SPAN 201 or three years of Spanish in high school.

**SPAN 221. Hispanic Songs** (1) I, II. Traditional and popular songs from various Hispanic countries, sung in Spanish; emphasis on study of texts and pronunciation. May be repeated to maximum of three hours. Prerequisite or corequisite: SPAN 101, or consent of instructor.

**SPAN 231. Hispanic Folk Dancing** (1) I, II. Traditional dances of Spain and Spanish America, especially those of Mexico and Colombia. Learning and performance of dances accompanied by regional and historical background. May be repeated to maximum of two hours. No prerequisite.

**SPAN 351. Spanish Composition and Conversation I** (3). Development of skill in speaking and writing, with appropriate grammar review. Prerequisite: SPAN 202.

**SPAN 352. Spanish Composition and Conversation II** (3). Continued development of skill in speaking and writing, with appropriate grammar review. Prerequisite: SPAN 202.

**SPAN 367. Introduction to Spanish Peninsular Literature** (3). Outstanding authors, works and movements of Peninsular literature from the Middle Ages to the present. Prerequisite: SPAN 351 or SPAN 352 or consent of instructor.

**SPAN 368. Introduction to Spanish American Literature** (3). Outstanding authors, works and movements from the time of discovery to the present. Prerequisite: SPAN 351 or SPAN 352 or consent of instructor.

**SPAN 371. Spanish Civilization** (3). Political, social, intellectual, artistic development of Spain. Prerequisite: SPAN 351 or SPAN 352.

**SPAN 377. Civilization of Mexico and the Caribbean** (3). Political, social, intellectual, artistic development of Mexico, Central America, and Spanish-speaking islands of the Caribbean. Prerequisite: SPAN 351 or SPAN 352.

**SPAN 378. Civilization of South America** (3). Political, social, intellectual, artistic development of Spanish-speaking countries of South America. Prerequisite: SPAN 351 or SPAN 352.

**SPAN 380. Introduction to Spanish-English Bilingualism** (2). Concepts and principles of bilingual-bicultural programs in the United States. Prerequisite: SPAN 202 or equivalent.

**SPAN 382. Spanish Business Correspondence** (2). Spanish for commercial purposes; business letter writing. Prerequisite: SPAN 351 or SPAN 352.

**SPAN 431. Spanish American Fiction** (3). Major authors and works from literary movements of the 19th and 20th centuries, with emphasis on either regionalism or the contemporary novel. Prerequisite: SPAN 368.

**SPAN 441. Medieval and Golden Age Literature** (3). Representative masterpieces of Spanish literature from the Middle Ages and the Siglo de Oro: Epic, poetry, novel, and theater. Prerequisite: SPAN 367.

**SPAN 442. Spanish Literature of the Nineteenth Century** (3). Outstanding works of the 19th century; romanticism, realism, naturalism, prose and poetry. Prerequisite: SPAN 367.

**SPAN 444. Spanish Literature of the Twentieth Century** (3). Outstanding works from the generation of 1898 to the present; poetry and prose. Prerequisite: SPAN 367.

**SPAN 450. Advanced Grammar and Composition** (3). Grammar and composition, especially appropriate for future teachers of Spanish. Prerequisite: SPAN 351 and SPAN 352.

**SPAN 455. Applied Linguistics** (3). Phonological, morphemic, syntactical, semantic aspects of Spanish; application to language learning and teaching. Prerequisite: SPAN 351 and SPAN 352 or consent of instructor.

**SPAN 463. Career Spanish** (3). Development of translation skills (Spanish to English and English to Spanish) on materials representing a wide range of technical, professional, and business careers. Prerequisite: SPAN 351 and SPAN 352.

**SPAN 470. Readings in Hispanic Literature** (1-3). Independent reading for the advanced student who wishes to study a particular period or author. Prerequisite: consent of department chair and instructor.

**SPAN 481. Spanish-American Literature I: Discovery to Modernism** (3). Representative authors from the Chroniclers through the Romantics; prose and poetry. Prerequisite: SPAN 368 or consent of instructor.

**SPAN 482. Spanish-American Literature II: Modernism to the Present** (3). Representative authors from Modernism and subsequent 20th century literary developments; prose and poetry. Prerequisite: SPAN 368 or consent of instructor.

**SPAN 488. Contemporary Mexican Literature** (3). Outstanding works of the 20th century. Prerequisite: SPAN 368 or consent of instructor.

**SPAN 489. Hispanic Studies** (3). Intensive study of an author, literary school, genre, or selected theme. May be repeated if topics are clearly different. Prerequisite: SPAN 367 or SPAN 368.

## Special Education (EDSE)

(See education, special)

## Sports Studies and Management (SSM)

(See health, physical education and recreation)

## Theatre (THEA)

(See speech communication)

## Visual Communication Technology (VCT)

(See technology)

## Women's Studies (WS)

### WS 200. Introduction to Women's Studies

(3) I, II. Individual and collective achievements of women; roles women do and might perform; "nature" of women and ways it has been imagined in our own and other cultures. Required of all women's studies majors and minors.

### WS 300. Topics in Women's Studies (3) I, II.

Topics of interest in studying women in subject area not offered in regular college course offerings. May be repeated twice if topics differ. No prerequisite.

### WS 400. Senior Seminar in Women's Studies (3) II.

Theories, methods, approaches to women's studies. Interdisciplinary research project required. Required of all women's studies majors and minors. Prerequisite: senior standing.

### WS 470. Independent Study in Women's Studies (1-3) I, II.

Study project to be designed by student and member(s) of women's studies faculty in subject area not offered in regular course offering. Prerequisite: junior or senior standing.

# Health, Physical Education and Recreation, School of

## Health Education (HED)

◆ **HED 109. Personal and Community Health (3) I, II, summer.** Basic personal and community health concepts, values and practices. Not open to students with credit for HED 209.

**HED 209. Advanced Concepts in Personal and Community Health (3) I, II.** Detailed study of factors that influence personal and community health in a contemporary society. Primarily for health education and physical education students.

### HED 230. Humanizing Health Education

(1) I, II. The theories and methods of values clarification, affective learning, and transactional analysis as they relate to the pre-service health education student. Prerequisite: sophomore standing.

**HED 301. Women's Health (2) II.** Health topics of special interest and importance to women. Open to all students; HED 338 highly recommended.

◆ **HED 313. Cardiopulmonary Resuscitation and Advanced First Aid and Safety (3) I, II, summer.** Provides knowledge and training in the prevention and treatment of accidents, injuries and procedures of basic life support. Satisfactory completion may result in American Red Cross certification. Participation in skill practice required.

◆ **HED 314. Instructors Advanced First Aid and Emergency Care (1) II.** Successful completion may lead to advanced instructor's certificate by the American National Red Cross. Prerequisites: junior standing and valid advanced first aid certificate.

### HED 338. Concepts of Human Sexuality

(3) I, II, summer. Information and concepts of human sexuality, including the physiological, social, psychological, moral and legal aspects. Prerequisite: junior standing or consent of instructor.

**HED 340. Drug Use/Abuse (3) II.** Knowledge regarding the ambiguity of drugs in society. Physical, psychological and social ramifications of drug use/abuse will be discussed. Prerequisites: HED 209 and junior standing or consent of instructor.

**HED 346. Health Education for the Elementary School Teacher (3) I, II, summer.** Content and techniques for teaching personal and community health in the elementary school.

**HED 348. Instructional Techniques in Health Education K-12 (3) I, II, summer.** On demand. Principles, planning methods, materials, resources and human relations of teaching health. C/F hrs.: 4.

**HED 362. Driver Education-Basic Instructor's Course (3) I, II, summer.** First of two courses required to qualify student to organize, administer, and teach driver education in Ohio. Prerequisites: junior standing and driver's license. C/F hrs.: 5.

**HED 393. Practicum in Health Education (3)** I, II. Practical experience in the preparation and presentation of health education instruction. Requirements include placement in a public school setting, on campus classroom work and regularly scheduled seminars. Prerequisites: HED 348 and HED 313. C/F hrs.: 147.

**HED 395. Workshop on Current Topics (1-3).** On demand. Intensive educational experience on selected topics related to skill development, content update, or materials developed. Typically, an all-day or similar concentrated time format. Requirements usually completed within time for mat. May be repeated on approval of adviser. Prerequisite: as decided by instructor.

**HED 409. School Health Services and School Environment (3)** I, II, summer. Consideration of school health services and school environment, including principles, organization and administration of: health appraisal, health counseling, communicable disease control, educational adjustments, emergency programs, record keeping and a safe school environment. Prerequisite: junior standing. C/F hrs.: 20.

**HED 462. Driver Education-Advanced Instructor's Course (3)** II, summer. Second of two courses required to qualify a student to organize, administer and teach driver education in the Ohio secondary schools. C/hrs.: 15.

**HED 470. Independent Study in Health Education (1-3).** On demand. An in-depth study project of a topic of particular significance to the student. Project must be approved by project supervisor and program area chair prior to registration. May be repeated.

**HED 480. Seminar in Teaching Controversial Issues in Health Education (2)** I, II. Teaching methods and procedures in discussing human sexuality, controversial life styles, addictive elements and contemporary issues of controversy such as death education, nutrition, the healing arts, child abuse, and socialized health care. Prerequisite: junior standing. C/F hrs.: 5.

**HED 481. Senior Seminar in Health Education (2)** I, II. Discussion of issues and problems faced by the school health educator: content comprehension and organization; instructional dilemmas encountered in student teaching; evaluative procedures specific to total health program. Prerequisites: senior standing, health education major or minor.

**HED 492. Student Teaching (1-10)** I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

**HED 497. Student Teaching (1-10)** I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

## Physical Education, General (PEG)

◆ **PEG 100. General Physical Education (1)** I, II, summer. Each freshman must fulfill the University requirement of two units from diverse physical activities. Most activities are coeducational. Two hours per week. Graded S/U.

◆ **PEG 200. General Physical Education (1)** I, II, summer. Elective program in diverse activities. Open to any student who has completed the University required three hours in PEG 100. Two hours per week.

## Physical Education, Professional (PEP)

**PEP 110, 112, 116, 121, 123, 124. Required Professional Activities.** A required program of skill and knowledge development within each activity including identification/analysis/observation of elements of movement. Two laboratories. C/F hrs.: 10 each.

**PEP 110. Gymnastics-Men (2)** II.  
**PEP 112. Gymnastics-Women (2)** II.  
**PEP 116. Soccer (2)** I.  
**PEP 121. Tennis (2)** I.  
**PEP 123. Track and Field (2)** I.  
**PEP 124. Volleyball (2)** II.

**PEP 137. Educational Dance (1)** I, II. Movement approach for dance where the learner becomes aware of the expressive values inherent in dance by experiencing and analyzing movement, creating dances, and responding to dance structure. One laboratory. Advisable to take concurrently with PEP 138.

**PEP 138. Educational Gymnastics (1)** I, II. Movement approach to gymnastics where the learner becomes aware of how to manage body weight and understand concepts related to the development of versatile, qualitative and inventive movement. One laboratory. Advisable to take concurrently with PEP 137.

**PEP 201-205, 207-209, 213, 214, 217-219, 226-228. Elective Professional Activities.** Elective courses of skill and knowledge development basic to participation and understanding of the activity. One laboratory.

**PEP 201. Archery (1)** I. Alternate years.  
**PEP 202. Badminton (1)** I, II.  
**PEP 203. Basketball (1)** I, II.  
**PEP 204. Bowling (1)** II. Alternate years.  
**PEP 205. Diving (1)** I. Alternate years  
**PEP 207. Fencing (1)** II. Alternate years.  
**PEP 208. Field Hockey (1)** I. Alternate years.  
**PEP 209. Golf (1)** I.  
**PEP 213. Lacrosse (1)** II. Alternate years.  
**PEP 214. Rebound Tumbling (1)** II. Alternate years.  
**PEP 217. Softball (1)** I.  
**PEP 218. Swimming (1)** I.  
**PEP 219. Synchronized Swimming (1)** I. Alternate years.  
**PEP 226. Wrestling (1)** II. Alternate years.  
**PEP 227. Advanced Educational Dance (1)** II. Alternate years.  
**PEP 228. Advanced Educational Gymnastics (1)** II. Alternate years.

**PEP 222. Advanced Synchronized Swimming (1)** I, II. For advanced synchronized swimmer or person interested in participating in annual production and demonstrations; choreography, lighting, publicity and production. Laboratory hours arranged. May be repeated to four hours. Prerequisite: consent of instructor.

**PEP 225. Advanced Lifesaving (1)** I, II, summer. Red Cross Advanced Lifesaving training techniques and skills designed to save lives in the event of aquatic emergencies. Prerequisite for water safety instructor's course and life-guard training. One laboratory. Prerequisite: eligibility testing conducted first week of course.

**PEP 230. Structural Kinesiology (4)** I, II, summer. The study of movement based on functional anatomy and selected mechanical principles. Three lectures; one laboratory. Prerequisite: sophomore standing. C/F hrs.: 15.

**PEP 233. Laboratory Experiences with Children (2)** II. Opportunities to engage in field experiences with urban children in closely supervised school situation and in on-campus settings focused on developing, analyzing and improving teacher behavior through working with individual EMR children and assisting in classes. May be repeated to four hours. Two laboratories. C/F hrs.: 45.

**PEP 235. Professional Reading and Writing in Physical Education (1)** II. Reading and interpretation of literature in physical education; writing professional paper; treatment of pertinent statistical techniques. Prerequisite: ENG 112.

**PEP 237. Teaching Educational Dance (2)** I. Movement approach to children's dance with special emphasis on program content, methodology and progression. One lecture, one laboratory. Prerequisite: PEP 137 or permission of instructor.

**PEP 238. Teaching Educational Gymnastics to Children (2)** I. Movement approach to gymnastics for children with emphasis on program content, methodology and progression. One lecture, one laboratory. Prerequisite: PEP 138 or permission of instructor. C/F hrs.: 21.

**PEP 241. Educational Games Teaching to Children (2)** I, II. Structure and teaching progression of games and sports; social, motor and cognitive. One lecture, one laboratory. Prerequisite: PEP 137 or PEP 138 or permission of instructor. C/F hrs.: 40.

**PEP 247. Practical Experience (3)** I, II. Supervised field experience with groups between ages of 11-18. Not open to first or second semester freshmen. Two lectures, one laboratory. Prerequisites: PEP 230, SPCH 102, and LEM 301. Recommended: PEP 137, PEP 138. C/F hrs.: 50.

**PEP 256. Concepts of Physical Education (2)** I, II. Introduction to the profession of physical education; objectives of physical education, elementary school and secondary school physical education, competitive athletics, adapted physical education, and career opportunities. Open only to major or minor students in physical education or by consent of instructor.

**PEP 303. Biomechanics (3)** I, II, summer. The study of human motion through the examination of internal and external forces acting on the body and the effects produced by these forces. Two lectures, one laboratory. Prerequisite: PEP 230. C/F hrs.: 20.

**PEP 322. Red Cross Water Safety Instructor's Course (2)** I, II. Completion certifies student to conduct and to certify Red Cross swimming and lifesaving courses except WSI. One lecture, one laboratory. Prerequisites: Current advanced lifesaving certificate, evidence of teaching need, and consent of instructor. C/F hrs.: 10.

**PEP 332. Teaching-Learning Processes (3)** I. Analysis of student-teacher behaviors through clinical and field-based experience for the purpose of developing and improving teacher-learning effectiveness. Emphasis on personal assessment and development of techniques. Two lectures, one laboratory. Prerequisites: PEP 137, PEP 138, PEP 241 and/or permission of instructor. C/F hrs.: 60.

**PEP 340. Motor Development** (3) II. Physical growth and perceptual-motor development of human beings including observation of children and assessment of perceptual and motor characteristics. C/F hrs.: 30.

**PEP 342. Physical Education in the Elementary School** (3) I, II, summer. Movement approach to physical education in the elementary schools including the examination of teacher behavior, child behavior, teaching techniques and styles and movement content. Prerequisites: PEP 137 and/or PEP 138.

**PEP 350. Motor Learning** (3) I, II. Perception, learning, motivation and other psychological factors involved in motor learning and performance. Two lectures, one laboratory. Prerequisite: EDFI 302. C/F hrs.: 40.

**PEP 356. Philosophical and Cultural Bases of Physical Education** (3) II. The study of philosophy and culture pertinent to the shaping of physical education as a discipline.

**PEP 360. Exercise Physiology** (3) I, II. Lecture/laboratory course; the immediate and long range effects of exercise upon the human body. Two lectures, one laboratory. Prerequisite: BIOL 332. C/F hrs.: 20.

**PEP 362. Teaching Motor Activity in Secondary Schools** (3) I, II. Principles, objectives, lesson planning, instructional materials, teaching methods, curriculum, and field experience in physical education in the secondary schools. Two lectures, two laboratories. Prerequisites: PEP 350, EDFI 302, and admission to PEP Major Plans II or III. C/F hrs.: 60.

**PEP 387. Practicum** (1-5) I, II, summer. Field experience under supervision of PEP division of School of Health, Physical Education and Recreation. Petitioning required of each student before registration. Credit hours for each experience approved separately by program area. Prerequisite: approval of PEP division faculty.

**PEP 392. Practicum in Secondary School Physical Education** (2) I, II. Field experience in physical education in the public school. Weekly assignment includes being in a public school two half days and attending regular seminars. Arrange. Prerequisites: PEP 362, HED 313, and junior standing. C/F hrs.: 90.

**PEP 395. Workshop on Current Topics** (1-3). On demand. Intensive educational experience in selected topics related to skill development, content update, or material development. Typically, an all-day or similar concentrated time format. Prerequisites: approval of PEP division faculty and chair.

**PEP 402. Assessment and Evaluation in Physical Education** (2) I, II, summer. Assessment and evaluation principles and techniques with application to performance/learning in physical education programs. C/F hrs.: 8.

**PEP 412. Organization and Administration of Physical Education and Interscholastic Athletics** (3) I, II, summer. Organization and administration of the total physical education program including instructions, intramurals, extramurals and interscholastic athletics. Prerequisite: senior standing.

**PEP 428. The Movement Approach to Teaching Physical Education to Children** (5) II. Selection, design, and application of learning experiences appropriate for elementary school child based on movement concepts. PEP 387 must be taken concurrently. Two lectures, three laboratories. Prerequisite: PEP 332. Recommended: PEP 233, PEP 238, PEP 241, PEP 337 or approval of instructor. C/F hrs.: 100.

**PEP 433. Fundamentals of Physical Education and Recreation for Special Populations** (3) I, II, summer. Principles, objectives and history of adapted physical education. Overview of disabilities in relation to assessment, movement, instructional methods, resource materials, observation strategy and field trips. Two lectures, one laboratory. C/F hrs.: 35.

**PEP 435. Motor Performance of Exceptional Children** (3) II. Relationship of neuromuscular patterns, assessment, and programming to movement of exceptional child field work. Two lectures and arrange. Recommended prerequisite: PEP 433 or PEP 340. C/F hrs.: 20.

**PEP 438. Seminar in Elementary School Physical Education** (2) II. Identification and examination of selected curricular problems and issues in elementary school physical education. Prerequisite: PEP 428 or permission of instructor. C/F hrs.: 30.

**PEP 443. Physiological Effects of Motor Activity** (3) II, summer. Physiological adaptation to exercise; metabolic and cardiovascular components, heat stress, body composition, other related topics. Two lectures, one laboratory. Prerequisites: BIOL 332. C/F hrs.: 20.

**PEP 470. Independent Study in Physical Education** (1-3) I, II, summer. An indepth study project of a topic of particular significance to the student. Project must be approved by project supervisor and program area chair prior to registration. May be repeated. Prerequisite: by permission.

**PEP 487. Practicum** (1-5) I, II, summer. Under supervision of PEP division of School of Health, Physical Education and Recreation. Petitioning and approval required of each student before registration. Credit hours for each experience approved separately by program area. Prerequisite: approval of PEP division faculty.

**PEP 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

**PEP 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

## Recreation and Dance (RED)

**RED 106. Ballroom Dance I** (2) II. Basic skills and knowledges specific to social and ballroom styles; beginning teaching methods.

**RED 111. Folk and Square Dance I** (2) I. Basic skills and knowledges specific to folk and square dance styles; beginning teaching methods.

**RED 115. Modern Dance I** (2) I, II. The first in a series of progressions in modern dance, exploring basic movement skills and correct body alignment; may be repeated up to six hours.

**RED 120. Classical Ballet I** (2) I, II. Studio instruction of classical ballet fundamentals with emphasis on correct body alignment, barre, and basic center work; may be repeated up to six hours. Prerequisite: beginning competency and permission of instructor.

**RED 178. Camp Leadership** (2) II. Organized camp movement; uniqueness of the camping experience and setting; role of the counselor; and programming and counseling principles.

**RED 190. Recreation Leadership** (3) I, II. Selecting, creating and conducting activities suitable for the wants and needs of various populations; leadership theories, styles and techniques; activity assessment; social activities pattern and recreation leadership kit.

**RED 210. Major Concepts in Recreation** (2) II. Philosophical concepts and historical foundations; exploration of economic, sociological, and psychological aspects; leisure service delivery systems and professional leadership.

**RED 215. Modern Dance II** (2) I, II. The second in a series of progressions, including studio instruction in modern dance with floor and center work in varying modern styles; may be repeated up to six hours. Prerequisite: RED 115 or permission of instructor.

**RED 220. Classical Ballet II** (1) I, II. The second of a graded series of progressions, including studio instruction in classical ballet techniques with emphasis on adagio and allegro enchainements; may be repeated up to six hours. Prerequisite: RED 120 or permission of instructor.

**RED 224. Dance Performance Workshop** (1). I, II. Experience in choreography and participation as members of the concert group, may be repeated up to six hours. Prerequisites: audition and permission of instructor.

**RED 226. Perspectives in Dance** (1) II. Introduction to the art of dance, including current trends in modern dance, classical ballet and vernacular dance form, exploration of the philosophies and aesthetic principles.

**RED 260. Recreation and Physical Activity for Older Americans** (2) II. Alternate years. Characteristics of older Americans; therapeutic benefits of activity; major services and settings; program planning, administrative concerns.

**RED 273. Outdoor Recreation** (3) II. Outdoor recreation resource bases; governmental agencies and private organization management and operations; behavioral patterns in outdoor recreation pursuits; legal, economic, and political impacts.

**RED 294. Outdoor Leadership** (3) II. Knowledge and leadership skills in the areas of outdoor living skills, backpacking, bicycle touring and canoe tripping. One weekend trip required.

**RED 315. Modern Dance III** (1) I, II. The third in a graded progression including studio instruction in varying styles of modern dance, emphasis will be placed on horizontal and oblique designs, turns, falls, jumps, leaps and complicated rhythms, may be repeated up to six times. Prerequisite: RED 215 or permission of instructor.



**RED 320. Classical Ballet III** (1) I, II. The third in a graded series of progressions, including studies instruction in classical ballet techniques, added difficulty in barre, adagio, and allegro work and introduction to pointe work, may be repeated up to six hours. Prerequisite: RED 220 or permission of instructor.

**RED 323. Camp Administration** (2) I. Role of camping in society; patterns of organization; programming guidelines, management aspects, personnel, and site and facilities.

**RED 325. Theory and Methods of Teaching Dance** (1) I. A seminar experience in pedagogical practices, in classical ballet and modern dance forms. Prerequisites: RED 215, 220, or permission of instructor.

**RED 326. Dance Composition** (2) II. Basic principles of form and flow of movement and their application to compositions in dance. Prerequisites: RED 215, RED 220 or permission of instructor.

**RED 327. Choreography Workshop** (1) I. Studio analysis of the elements of choreography; development of dance compositions, evaluation of compositions; specific assignments of selected problems; may be repeated up to six hours. Prerequisite: RED 326 or permission of instructor.

**RED 380. Concepts and Techniques in Outdoor Education** (4) II. Outdoor education through school curricula, interpretive services, recreation agencies and community action; philosophical bases; identification and utilization of resources; the learning process.

**RED 384. Organization and Administration of Recreation** (3) II. Basic concepts of administration, personnel management, fiscal management, public relations techniques, motivation theory, grant writing and fund raising, legal aspects of administration; budget proposal preparation and development of employment seeking skills. Prerequisite: RED 210.

**RED 385. Recreation Program Development** (3) I. Principles of program planning, organization, and administration; operation of areas and facilities; current practices in publicity and public relations; supervision of program and staff; tournament scheduling; program budgeting. Prerequisite: RED 210.

**RED 387. Practicum** (1-5) I, II, summer. Application of leadership and program theory to field setting; petitioning and approval required of each student before registration, may be repeated. Credit hours for each experience approved separately by program area. Prerequisite: approval of appropriate division faculty.

**RED 395. Workshop on Current Topics** (1-3). On demand. Intensive educational experience on selected topics related to skill development, content update, or material development; may be repeated.

**RED 424. History and Philosophy of Dance** (3) I. Events, personalities, and philosophies of dance from primitive to modern times, including the development of ballet and the emergence of modern dance.

**RED 426. Dance Production** (3) II. Classroom and hands-on experience; problems and techniques in dance lighting, sound, costuming, direction, publicity and general management.

**RED 470. Independent Study** (1-3) I, II, summer. An in-depth project of significance to the student. Credit allocation by project supervisor and approval by chair prior to registration. Prerequisite: by permission of instructor.

**RED 482. Evaluation of Recreation Services** (3) I. Methods, techniques and application of evaluation processes.

**RED 483. Recreation Areas and Facilities** (3) II. Planning and design principles; acquisition, development, construction and maintenance of specific types of recreation areas and facilities.

**RED 484. Contemporary Issues in Recreation** (2) I. Seminar in current issues.

**RED 487. Practicum** (1-5) I, II, summer. Application of program, supervision, and administration theory to a field setting; petitioning and approval required of each student before registration; credit hours for each experience approved separately, may be repeated. Prerequisite: approval of appropriate division faculty.

**RED 488. Fieldwork** (10) I, II, summer. A concentrated professional experience for students preparing for a career in recreation and dance. Prerequisites: grade point average of 2.5, 60 credit hours, RED 384, RED 385 and consent of recreation and dance division.

## Sports Studies and Management (SSM)

**SSM 306. Sports Officiating: (Sub-Title)** (1) I, II. Lecture and laboratory experience in the rules and mechanics of officiating; prepares for OHSA examination. May be repeated. Two labs per week.

**SSM 306 A - Basketball** (1) II.

**SSM 306 B - Football** (1) I.

**SSM 306 C - Baseball/Softball** (1) I.

**SSM 306 D - Track/Field** (1) II.

**SSM 306 E - Volleyball** (1) I.

**SSM 306 F - Soccer** (1) On demand.

**SSM 306 G - Wrestling** (1) On demand.

**SSM 306 H - Swimming/Diving** (1) On demand.

**SSM 310. Care and Prevention of Sports Injuries** (2) I, II. Prevention, evaluation, and temporary care of injuries; laboratory experience in bandaging, strapping, evaluating case studies, and use of the training room. Recommended: BIOL 332; PEP 230.

**SSM 328. Principles, Ethics, and Problems of Athletic Coaching** (3) I, II. Non-technical, "off-the-field" aspects of athletic coaching educational implications; coaching ethics; public relations; equipment; financing; liability; coach-athlete rapport. Prerequisite: junior standing.

**SSM 329. Coaching Football** (3) I. Development of personal skills and understandings in football; team administration, organization, philosophy, theory, fundamentals, strategy, methods and responsibilities of coaching football. Two lectures, two labs per week. Prerequisite: sophomore standing.

**SSM 330. Coaching Track/Field** (2) II. Administration, organization, philosophy, theory, strategy, methods and responsibilities of coaching track and field. One lecture, two labs per week. Prerequisite: PEP 123-Track/Field.

**SSM 331. Coaching Basketball** (2) I, II. Administration, organization, philosophy, theory, fundamentals, strategy, methods and responsibilities of coaching basketball. One lecture, two labs per week. Prerequisite: PEP 203-Basketball.

**SSM 332. Coaching Baseball** (3) I. Development of personal skills and understandings in baseball; administration, organization, philosophy, theory, strategy, methods, drills, field preparation, and responsibilities of coaching. Two lectures, two labs per week. Prerequisite: sophomore standing.

**SSM 333. Coaching Volleyball** (2) I. Administration, organization, philosophy, theory, strategy, methods, and responsibilities of coaching volleyball. One lecture, two labs per week. Prerequisite: PEP 124-Volleyball.

**SSM 334. Coaching Softball** (2) II. Administration, organization, philosophy, theory, strategy, methods, and responsibilities of coaching softball. One lecture, two labs per week. Prerequisite: PEP 217-Softball.

**SSM 335. Designing and Directing Fitness and Sport Programs** (3) II. Objectives, transactions, and procedures to conduct professional physical activity and sport programs. Prerequisites: SSM 387 and SSM 423.

**SSM 336. Coaching Swimming/Diving** (2) II. Administration, organization, philosophy, theory, strategy, methods, and responsibilities of coaching swimming and diving. One lecture, two labs per week. Prerequisite: PEP 218-Swimming.

**SSM 387. Practicum - Physical Activity and Sport** (1-5) I, II, summer. Under supervision of SSM division of School of HPER: petitioning required before registration; credit hours approved separately by program area. Prerequisite: approval of appropriate division faculty.

**SSM 391. Practicum in Athletic Studies** (2) I, II. Field experience with interscholastic athletic programs in an approved setting; weekly on-campus seminars; may be repeated once by athletic coaching minors. Prerequisites: SSM 328, concentration in athletic coaching or athletic training, and permission of instructor.

**SSM 395. Workshop on Current Topics** (1-3). On demand. Intensive educational experience in selected topics related to skill development, content update, or material development; typically, an all-day or similar concentrated time format.

**SSM 410. Advanced Techniques of Athletic Training** (3) II. Mechanism of sport injuries, recognition of severity, examination, treatment, and rehabilitation of specific areas of injuries. Prerequisites: SSM 310 and BIOL 331, or consent of instructor.

**SSM 421. History and Philosophy of Sport** (3) I. Major historical and philosophical developments in sport.

**SSM 423. Scientific Foundations of Physical Fitness** (3) II. Assessment and development of physical fitness. Prerequisite: PEP 360.

**SSM 425. Women and Sport** (3) II. Historical, cultural, and physiological considerations of women's participation in sport.

**SSM 429. Principles and Problems of Athletic Conditioning** (2) I. Physiological foundations of conditioning and the basic fundamentals of conditioning techniques based on principles of strength, power, endurance, speed, etc., relevant to athletic fitness and performance. Prerequisites: BIOL 332 or PEP 360/443 or consent of instructor.

**SSM G431. Problems in Intramural and Extramural Sports** (2) II. Planning, promoting, and administering intramural and recreational sports programs. Prerequisite: junior standing.

**SSM 470. Independent Study in Sport Studies and Management** (1-3) I, II, summer. An in-depth study project of a topic of particular significance to the student; project must be approved by project supervisor and program area chair prior to registration; may be repeated. Prerequisite: by permission.

**SSM 487. Practicum – Physical Activity and Sport** (1-5) I, II, summer. Under supervision of SSM division of School of HPER; petitioning required before registration; credit hours approved separately by program area; minimum of three hours taken during professional semester. Prerequisites: SSM 387 and approval of appropriate division faculty.

**SSM 489. Internship in Sports Studies and Management** (12) I, II, summer. Field experience for sport management majors only. Prerequisites: minimum of 52 hrs. in major field, at least one SSM practicum experience, GPA of 2.5 and an average of 3.0 in the major field; the student must meet and maintain this standard for one semester prior to the internship assignment.

**SSM 490. Professional Resources in Sport Activities** (3) I, II. Professional resources for leadership roles in sport and activity. Prerequisite: SSM 387.

# Speech Communication, School of

## Communication Disorders (CDIS)

**CDIS 121. Personal Remediation** (1) I, II, summer. Students having speech, language, or hearing problem requiring remedial treatment urged to take advantage of services offered by speech and hearing clinic. No credit toward graduation. Additional fee: \$25. Graded S/U.

◆ **CDIS 223. Introduction to Communication Disorders** (3) I, II, summer. Normal speech and language development, description and etiology of various communication disorders, i.e., articulation, voice, stuttering, etc.

**CDIS 224. Phonetics** (2) I, II. Sounds of spoken English, their production and recognition. Applications to techniques in speech pathology and habilitation of the hearing handicapped. Prerequisite: CDIS 223 or CDIS 471.

**CDIS 301. Speech and Hearing Science** (4) I, II. Anatomical and physiological principles of the speech and hearing mechanisms including acoustics and the acoustic theory of speech production and perception. Prerequisites: CDIS 223 and CDIS 224.

**CDIS 311. Articulation Development and Disorders** (3) I, II. Development, diagnosis, and therapeutic techniques for problems of articulation. Clinical observations required. Prerequisite: CDIS 301.

**CDIS 321. Voice Disorders and Cleft Palate** (2) I. Study of normal and abnormal voices in children and adults. Prerequisite: CDIS 301.

**CDIS 331. Neurogenic Disorders of Communication** (3) I. Basic principles of neuromotor development and their relation to speech processes. Etiology, diagnosis and treatment of developmental and acquired neurogenic speech disorders. Prerequisite: CDIS 311; non-majors must obtain consent of instructor.

**CDIS 341. Stuttering** (2) II. Definition, description, development and maintenance of stuttering; approaches to assessment and treatment in children and adults. Prerequisites: CDIS 321, junior standing, and PSYC 305 or consent of instructor.

**CDIS 351. Language Acquisition, Assessment and Remediation** (4) I, II. Normal acquisition patterns and stages, mechanisms of acquisition, techniques for effective evaluation and survey of therapy programs and techniques. Prerequisites: CDIS 311 and ENG 380.

**CDIS 361. Introduction to Diagnostic Audiology** (3) I. Audiometric pure-tone testing methods, otologic pathologies, and associated hearing problems. Prerequisite: CDIS 301.

**CDIS 401. Prepracticum in Communication Disorders** (2) II. Introduction to clinical setting; student will be involved in planning, observing, and assisting in therapy. Two lectures, two observation periods per week. Prerequisites: CDIS 311, 321, 341, and 2.25 GPA. C/F hrs.: 20.

**CDIS 411. Diagnosis and Assessment of Communication Disorders** (4) I, II. Clinical techniques and theory relating to the appraisal and diagnosis of communication disorders in children and adults. Practical experience in evaluation and report writing. Prerequisites: CDIS 331, 351, 361, 401. C/F hrs.: 15.

**CDIS 421. First Practicum in Communication Disorders** (2) I, II, summer. Supervised clinical experience with children and adults. Two lectures and two clinical periods per week. Prerequisites: CDIS 401 and 411, 2.5 GPA in CDIS courses, 40 approved observation hours, and consent of instructor. C/F hrs.: 45.

**CDIS 431. Second Practicum in Communication Disorders** (2) I, II, summer. Supervised clinical experience with children and adults. Two lectures and two or more clinical periods per week. Prerequisites: CDIS 421, 2.5 GPA in CDIS courses, and consent of instructor. C/F hrs.: 45.

**CDIS 434. Teaching Beginning Speech to the Deaf** (2) I. Speech development of deaf. Analysis of auditory, tactile, proprioceptive and visual aspects of speech sounds. Relative difficulty of producing speech sounds and teaching them. Prerequisites: EDSE 461, 464. C/F hrs.: 15.

**CDIS 436. Teaching Advanced Speech to the Deaf** (2) II. Review and comparison of methods in teaching speech to deaf. Common problems in speech classes for deaf. Speech sounds and their maintenance and correction as integral part of academic curriculum. Prerequisite: CDIS 434. C/F hrs.: 15.

**CDIS 451. Language Principles and Practices for the Special Education Professional** (4) I, II. Introduction to language patterns of normal children related to the acquisition of pragmatics, syntax and semantics. Relationship of these patterns to assessment and remediation procedures and strategies in atypical populations.

**CDIS 461. Introduction to Rehabilitative Audiology** (4) II. Rehabilitation of the hearing impaired. Amplification systems, speech reading, and auditory training. Prerequisite: CDIS 361.

**CDIS 470. Independent Study in Communication Disorders** (1-3) I, II, summer. For students who wish to do intensive study in communication disorders independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of instructor and program chair.

**CDIS 471. Introduction to Communication Disorders for the Classroom Teacher** (3) I, II, summer. Identification, etiologies, and characteristics of communication disorders. Suggestions for classroom management of communication disorders. Not open to student with credit for CDIS 223.

**CDIS 481. Organization and Management of School Speech-Language-Hearing Programs** (3) I, II. Planning and implementing programs in schools for speech-language and hearing-handicapped pupils. Clinician's roles and responsibilities. Grade of "C" or better in this course to qualify for student teaching. Prerequisites: all CDIS courses.

**CDIS 492. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

**CDIS 497. Student Teaching** (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

## Interpersonal and Public Communication (IPCO)

### ◆ IPCO 110. Intercollegiate Forensic Activities

(1) I, II. For student who wishes to participate in intercollegiate debate, discussion, oratory, extemporaneous speaking, or other individual events. May be repeated to two credits.

**IPCO 203. Small Group Communication** (3) I, II, summer. Theory and practice in the analysis of social interaction in small groups as it affects problem solving and policy formation processes. Mass lecture plus lab sections.

**IPCO 204. Argumentation** (3) I, II, summer. Principles of argumentation; case analysis and construction, and practice in forms of debate.

### ◆ IPCO 205. Public Speaking

(3) I, II. Principles of public communication composition and public speaking, including practice.

**IPCO 303. Persuasive Communication** (3) I, II, summer. Theories and concepts of persuasive communication; attitude change, audience analysis, and strategies of persuasion.

### ◆ IPCO 304. Leadership in Group Communication

(3) I. Conceptions, methods, and techniques of leadership related to group communication processes. Emphasis is given to understanding and application of contingency theories. Prerequisite: IPCO 203.

### ◆ IPCO 305. Human Communication

(3) I, II, summer. The development of theoretical understandings of communication. Theories considered are foundational to the application of communication knowledge in a wide variety of situations.

### ◆ IPCO 306. Interpersonal Communication

(3) I, II, summer. Two-party communication, reduction of defensive climates as means of facilitating effective communication. Practical experiences in information seeking, persuasive, and personal encounters.

**IPCO 307. Speech Communication in Organizations** (3) I, II, summer. Message initiation, diffusion, and reception in organizational setting. Function and conduct of meetings, including both parliamentary procedure and relationships to organizational settings.

**IPCO 310. Intercollegiate Forensic Activities** (1) I, II. Similar to IPCO 110; for juniors and seniors. May be repeated to two credits.

**IPCO 311. Contemporary Minority Voices** (3) II. Alternate years. Contemporary minority communication and culture; coping strategies, nature of minority audiences, and discussion of political philosophies of various spokespersons for minority issues.

**IPCO 395. Workshop on Current Topics** (1-3) On-demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. May be repeated on approval of adviser, if topics differ.

**IPCO 402. Critical Analysis of American Public Communication** (3) II. Principles of rhetorical criticism applied to studies of significant American communication events.

**IPCO 406. Topics in Interpersonal and Public Communication** (3) I, II, summer. Selected topics or subject areas within the field of communication, marital communication, legal speaking, assertiveness, and nonverbal communication. May be repeated.

**IPCO 489. Communication Internship** (1-10) I, II, summer. Field experience in communication. Study of communication as intern in public or commercial agency. Open only to IPCO students in bachelor of arts in communication degree program.

**IPCO 490. Problems in Interpersonal and Public Communication** (1-3) I, II. For advanced student who wishes to do intensive study in rhetoric, public address, or communication studies independently or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school.

## Radio-Television-Film (RTVF)

**RTVF 255. Introduction to Broadcasting** (3) I. Survey of broadcasting industry in America. No prerequisites. Intended for majors.

**RTVF 260. Broadcasting and Society** (3) I, II, summer. Functions and effects of electronic media for individual and society.

**RTVF 261. Understanding Movies** (3) I, II, summer. Film as art. Essential elements of film, editing, camera work, sound and composition explored in some classic motion pictures. Various approaches to looking at movies and writing about them.

### ◆ RTVF 262. Radio Writing, Announcing and Producing

(4) I. Writing for broadcasting; style and basic principles and practices of announcing; theories and processes of audio production. Laboratory hours.

**RTVF 263. Television Programming and Production** (4) II. Theories and practices involved in programming decisions; basic theory of television production. In-studio experience in operating cameras, film chain, audio board, character generator and switcher. Laboratory hours.

**RTVF 264. 8mm Film Making** (3) I, II. Basic techniques of 8mm motion picture photography. Understanding of lens, film, and camera characteristics, lighting, camera operation, and editing. Student furnishes camera and some materials.

**RTVF 360. Procedures of Audience Measurement** (3) II. Audience rating systems, significance and design. Aspects of broadcasting audience analysis, questionnaire design, sampling strategies, computer data analysis and presentation of results.

**RTVF 364. Producing and Directing for Television** (3) I. Theories and processes of producing, writing, and directing television program including film and portable video elements, opportunities for specialization in selected program types — news and public affairs, drama, documentary, variety, instructional. Laboratory hours. Prerequisite: RTVF 263 or equivalent experience.

**RTVF 365. Broadcast History** (3) I. Current U.S. broadcasting with view of antecedents in regulations, economics, programs, audiences, stations, networks, technology, and employment. Prerequisite: eight hours of RTVF.

**RTVF 366. Processes and Effects of Mass Communication** (3) I. Mass communication process and its effects, including topic legitimization, gatekeeping, social impact.

**RTVF 368. Radio Workshop** (1) I, II. Development of program ideas through all stages of planning, writing, directing, and selling. Individual program projects for possible use on WBGU or WFAL. May be repeated to three hours. Prerequisite: RTVF 262.

**RTVF 395. Workshop on Current Topics** (1-3) On-demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ on approval of adviser.

**RTVF 460. Regulation of Broadcasting** (3) II. Roles of federal, state and local government in regulation of broadcasting. Analysis of Federal Communications Commission. Legal problems engendered by regulation.

**RTVF 464. 16mm Film Making** (3) II. Concepts, theories, and mechanics of film production; applications of cinema to television, news, documentaries, informational presentations, and feature and art film production. Lectures and laboratory. Prerequisites: RTVF 264 or JOUR 306 or VCT 282; and permission of instructor.

**RTVF 466. History and Criticism of Film** (3) II. Historical development of theatrical, documentary, and avant-garde films. Function, content, and style of film criticism.

**RTVF 468. Television Workshop** (3) I, II. Production of dramatic and public affairs television programs. Writing, producing, and directing emphasized. May be repeated once. Prerequisite: RTVF 364 or consent of instructor.

**RTVF 469. Seminar: Contemporary Aspects of Broadcasting and Film** (3) On demand. Investigation and analysis of area of radio, television, and film. Various topics of current concern; public and instructional broadcasting, audience, CATV, political broadcasting, censorship and freedom in film, film movements and styles. May be repeated with permission of adviser to six hours.

**RTVF 489. Internship in Radio-Television-Film** (1-6) I, II. Supervised field experience in electronic communication. Student must arrange for experience with approval of intern supervisor in advance of registration. May be repeated up to six hours. Limited to RTVF majors. Prerequisite: 2.5 overall GPA. Graded S/U.

**RTVF 490. Problems in Radio-TV-Film** (1-3) I, II. For advanced student who wishes to do intensive study in radio, television, or film independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school.

## Speech (SPCH)

◆ **SPCH 102. Principles of Speech Communication** (3) I, II, summer. Basic principles of interpersonal, small-group, and public communication; field of speech communication; with attention to individual needs.

**SPCH 351. Administration of Co-curricular Speech Programs** (3) Summer. Required of all speech majors and minors in College of Education. Techniques for handling secondary co-curricular speech programs such as debate, forensics, and theatre. Field experiences required. Prerequisites for majors: EDCI 372 and IPCO 204 and THEA 241 and THEA 243 and THEA 341.

## Theatre (THEA)

**THEA 139. Dramatic Production** (1) I, II. Laboratory course for student who participates as performer or technician in Firelands College productions. May be repeated to two hours. Any combination of THEA 139 and THEA 146 may not exceed two hours. Prerequisite: consent of instructor.

◆ **THEA 141. The Theatre Experience** (3) I, II, summer. Art of theatre: heritage and contemporary values as humanistic discipline; importance as social/cultural experience; opportunity for some involvement in theatrical activities.

- ◆ **THEA 146. Dramatic Production** (1) I, II, summer. Laboratory course for student who participates as performer or technician in University Theatre productions. May be repeated to two hours. Prerequisite: consent of theatre program. Graded S/U.
- ◆ **THEA 202. Oral Interpretation** (3) I, II, summer. Logical and aesthetic meaning in drama, prose, and poetry for oral performance; selection of materials for programs; and vocal and physical techniques of performance.
- ◆ **THEA 241. Principles of Acting** (3) I, II. Basic acting techniques; stage movement and speech; principles of imaginative, emotional, and sensory responsiveness. Three two-hour meetings per week.
- ◆ **THEA 243. Stagecraft** (3) I, II. Elements of behind the scenes theatre practice, scenery and costume construction, rigging, lighting, and sound; organization and operation of production crews. Laboratory hours arranged.
- THEA 302. Advanced Oral Interpretation** (3) II. Analysis and communication of logical and aesthetic meaning as found in drama and other significant literature. Experimentation with various forms of oral interpretation such as reader's theatre, chorale reading. Emphasis on advanced, individualized work. Prerequisite: THEA 202.
- THEA 339. Dramatic Production** (1) I, II. Laboratory course for student who participates as performer or technician in Firelands College productions. May be repeated to three hours. Any combination of THEA 339 and THEA 346 may not exceed three hours. Prerequisite: consent of instructor.
- THEA 340. Creative Dramatics** (3) I, II, summer. Principles, methods, and laboratory experience in guiding dramatics for preschool, elementary, and secondary school children, as well as recreation programs. Creative approach to dramatic play, language development, storytelling, and story dramatization.
- THEA 341. Directing** (3) I, II. Theory and techniques of play direction. Laboratory hours arranged. Prerequisites: THEA 141 and THEA 241 and THEA 243 or consent of instructor.
- THEA 342. Advanced Directing** (3) II. THEA 341 continued. Each student directs at least one short play or series of short scenes. Prerequisite: THEA 341. Laboratory hours arranged.
- THEA 343. Lighting Design** (3) I. Theories and techniques of lighting stage productions; lighting instruments and equipment.
- THEA 344. Intermediate Acting** (3) II. Study and experimentation in preparation of roles. Three two-hour meetings per week. Prerequisite: THEA 241 or consent of instructor.
- THEA 345. Advanced Acting** (3) I. Extensive work in speech and movement; individual acting problems through scene work. Three two-hour meetings per week. Prerequisite: THEA 241 and THEA 344 or consent of instructor.
- ◆ **THEA 346. Dramatic Production** (1) I, II, summer. Same as THEA 146 except for juniors and seniors. May be repeated to three hours. Prerequisite: consent of theatre program. Graded S/U.
- THEA 347. Major Periods of Theatrical History** (3) I. History of theatrical production (stage and auditorium architecture, machinery, scenery, lighting, acting, and costuming) in selected periods from primitive times to present.
- THEA 348. Literature of Theatre** (3) II. Major dramas, dramatists, dramatic criticism, and dramatic theory from Greeks to present.

**THEA 349. Theatre Costume Design** (3) I. Basic principles of costume design for the stage; development and rendering of design concepts; use of historic, stylistic and fantasy elements in stage character realization.

**THEA 350. Milestones in Black Theatre** (3) II. Read, research and discuss/report on the aesthetics, dramatic intent, historical significance and production history of milestone black plays.

**THEA 352. Musical Theatre** (3) II. The history, theory, and staging techniques of musical theatre production in the United States.

**THEA 395. Workshop on Current Topics** (1-3) On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser.

**THEA 443. Playwriting** (3) I. Writer's workshop involving creation and production of original play for stage; discussion of process of playwriting and mounting a play for production. May be repeated.

**THEA 444. Fundamentals of Scene Design** (3) II. Designing for stage; dramatic action of script as organic element in design; effects of line, color, and mass on setting, decor, and lighting in enhancing action. Prerequisite: THEA 243 or consent of instructor.

**THEA 446. Summer Theatre Performance** (1-6) Summer only. Intensive laboratory work in study, preparation, and development of roles. Particular problems of performance in summer theatre. Prerequisite: consent of school.

**THEA 448. Summer Theatre Production** (1-6) Summer only. Intensive laboratory work in scenery construction and painting, stage lighting, organization, and operation of backstage crews and technical theatre. Particular problems of technical production in summer theatre. Prerequisite: permission of school.

**THEA 449. Contemporary Issues in Theatre** (3) On demand. Seminar for advanced students. Specific topics vary and depend on current trends in world theatre as identified by students and faculty members. Prerequisite: consent of instructor.

**THEA 450. Summer Theatre Management** (1-6) Summer only. Intensive laboratory work in various aspects of theatre management; publicity, box office, house management, public relations. Particular problems of management of summer theatre. Prerequisite: consent of school.

**THEA 489. Theatre Internship** (1-12) I, II, summer. Supervised field experience in theatre. Contract-based study of theatre principles as intern in public or theatre commercial company. Student must be recommended by adviser and approved by director of theatre program unit. Open only to students in bachelor of arts in communication degree program.

**THEA 490. Problems in Theatre** (1-3) I, II, summer. For advanced student who wishes to do intensive study in theatre, independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school (theatre program).

# Technology, School of

## Aerotechnology (AERT)

**AERT 342. Flight Instruction I and II** (3) I, II, summer. Aerodynamics, aircraft systems, charts, airports, communication procedures, meteorology, regulations, aviation publication, flight computer, medical facts, radio navigation, and cross country flight planning. Upon completion of course, students qualified to take FAA Private Pilot-Airplane written exam.

**AERT 343. Flight Instruction III** (1) I, II, summer. Includes 15 hours of solo and 20 hours of dual instruction specified as a minimum for FAR Part 141 private pilot training. License must be obtained to receive credit for course. Additional fees arranged with Aerotechnology coordinator. Prerequisite: AERT 342 or permission.

**AERT 344. Commercial Ground School** (1) II, On demand. Advanced aerodynamics and aircraft systems, commercial pilot operations, weight and balance, complex operation. Upon completion of course, students qualified to take FAA Commercial Pilot-Airplane written exam. Prerequisite: AERT 342.

**AERT 345. Commercial Flight Instruction I** (1) I, II, summer. Advanced flight maneuvers, night flight instruction, cross country flight training. First of two flight sequences leading to the Commercial Pilot-Airplane rating. Flight fees arranged with coordinator of aerotechnology. Prerequisite: AERT 343.

**AERT 346. Commercial Flight Instruction II** (2) I, II, summer. AERT 345 continued, includes commercial pilot flight maneuvers and complex aircraft flight training. Commercial Pilot-Airplane license must be obtained to receive credit for course. Prerequisite: AERT 345. Additional fee arranged with coordinator of aerotechnology.

**AERT 401. Aviation Instructor Ground School** (2) I, On demand. Presents learning theory in an aviation setting, instructor responsibility, lesson planning, and advanced aviation problems. Upon completion student qualified for FAA written exam Fundamentals of Instructing and either Basic Ground Instructor or Flight Instructor-Airplane. Prerequisite: AERT 344.

**AERT 402. Instrument Ground School** (3) II, On demand. Instrument flight planning, meteorology, approach procedures, approach chart interpretations and instrument flight communication. Upon completion students are qualified for the Instrument-Airplane written examination. Prerequisite: AERT 342.

**AERT 403. Instrument Flight Instruction** (1) I, II, summer. Dual flight instruction required for the FAR Part 141 Instrument rating. Flight fees arranged with coordinator of aerotechnology. Prerequisite: AERT 345 or permission.

**AERT 490. Problems in Aerotechnology** (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in aerotechnology. Prerequisite: consent of school. Graded S/U.



## Construction Technology (CONS)

**CONS 235. Introduction to Construction** (3) I, II, summer. Basic concepts of construction techniques used today; includes office organization, building construction techniques, surveying, building materials, plan reading and estimating. Four hours of lecture and laboratory. Prerequisite: high school math. Sophomore-standing recommended.

**CONS 306. Light Building Construction I** (3) I, II. Methods and materials involved in framing and enclosing residential and light commercial buildings. Manufactured and prefab components and structures; codes, plans and specifications; estimating and types of contracts and subcontract work for the small builder. Four hours of lecture and laboratory. Prerequisite: CONS 235 or consent of instructor.

**CONS 307. Land Planning and Development** (3) I, II. Land planning, zoning, and community and sub-division design; sub-surface utility systems, transportation systems, and other environmental considerations. Four hours of lecture and laboratory. Prerequisite: CONS 235, MATH 121 or equivalent.

**CONS 318. Construction Surveying** (3) II, summer. Classroom/field study of surveying equipment, such as, surveyors steel tape, transit and level. Emphasis on measuring distances, horizontal angles and vertical angles, determining elevations, calculating areas, layout of curves, cut and fill, building foundations, and mapping. Four hours of lecture and laboratory. Prerequisites: CONS 235 and good math background in algebra and trigonometry or TECH 121.

**CONS 335. Commercial and Industrial Construction** (3) I, II. Basic considerations or materials used in construction of commercial and civil complexes. Foundations and site-work; soils and concrete. Four hours of lecture and laboratory. Prerequisites: CONS 235 and DESN 301.

**CONS 337. Heating, Ventilating, and Air Conditioning Systems** (3) II. Mechanical systems that provide heating, ventilation, air conditioning cooling for building and production processes. Experience with conventional and solar mechanical systems; determining losses, make-up, system sizing, control. Methods, materials and problems encountered in installing systems stressed. Four hours of lecture and laboratory. Prerequisite: TECH 191 or CONS 235 or permission of instructor.

**CONS 406. Light Building Construction II** (3) II. Advanced course in building construction; necessary materials, methods, and devices used in interior finishing of both residential and commercial facilities. Four hours of lecture and laboratory. Prerequisites: CONS 306 and CONS 335 or consent of instructor.

**CONS 425. Introduction to Construction** (3) I, II, summer. Basic concepts of construction techniques used today; includes office organization, building construction techniques, surveying, building materials, plan reading and estimating. Four hours of lecture and laboratory. For transfer students only.

**CONS 435. Commercial, Industrial and Civil Construction** (3) II. On demand. Advanced course in design consideration of methods and materials used in construction of reinforced concrete and steel frame buildings, pavements, sewers and airfields. Four hours of lecture and laboratory. Prerequisites: CONS 335, DESN 243, CONS 337.

**CONS 437. Construction Equipment** (3) I. On demand. Equipment fundamentals as related to construction operations. Ownership and operating costs and productivity of major construction equipment; frequent down-time items. Four hours of lecture and laboratory. Prerequisites: TECH 191 and CONS 235.

**CONS 439. Estimating and Cost Control** (3) II. On Demand. Designed to give basic tools needed to take off and price typical construction project. Final bid document including all materials, labor, equipment and overhead costs, and profit margin prepared for actual project. Four hours of lecture and laboratory. Prerequisite: CONS 335.

**CONS 440. Construction Contracting** (3) I. On demand. Project scheduling and control, bidding theories, safety in construction industry, construction contracts. Four hours of lecture and laboratory. Prerequisites: 20 hours of 300/400 level courses in CONS technology and senior standing.

**CONS 490. Problems In Construction Technology** On demand. For advanced students wanting to conduct intensive study of selected problems in construction technology. Prerequisite: consent of school. Graded S/U.

## Design Technology (DESN)

◆ **DESN 104. Design and Engineering Graphics I** (3) I, II, summer. Design as process and engineering graphics as vehicle to communicate problem solutions. Documented design analysis, sketching, and instrument drawing applied to design problems involving industry and technology. Four hours of lecture and laboratory.

† **DESN 202. Mechanical Design** (5) II Alternate years. Design and selection of mechanical elements, fasteners, power transmission devices, hydraulics systems, manuals, catalogs, and publications utilized. Consideration of economy, loading conditions, stresses, deformation, fits and finishes in design. Three hours lecture, six hours laboratory. Prerequisites: DESN 104 and PHYS 201.

◆ **DESN 204. Design and Engineering Graphics II** (3) I, II, summer. Application of design analysis and engineering graphics to problems dealing with mechanical production design. Use of working drawings to communicate design solutions for surface development, jig and fixture, and tool and die design. Dimensioning and graphic techniques. Four hours of lecture and laboratory. Prerequisite: DESN 104.

† **DESN 205. Tool, Die, Jig and Fixture Design** (4) II alternate years. Importance and economics of tooling designed for mass production; topics include jigs, dies, design and construction emphasis placed on die design problems and solutions. Field visits to die stamping plants. Two hours lecture, six hours laboratory. Prerequisite: DESN 104.

† **DESN 210. Fluid Systems** (2) I, II. On demand. Hydraulic and pneumatic systems as used for industrial power control and transmission. Drawing and designing systems stressed. Prerequisites: TECH 191 and PHYS 201 or permission of instructor.

◆ **DESN 243. Statics and Strength of Materials** (3) I, II. Fundamentals of statics including vectors, centroids, moment of inertia, free body diagrams, and structural systems; strength of materials including the study of simply and combined stress, bending, shear, and torsional stress. Four hours of lecture and laboratory. Prerequisite: good math background in algebra and trigonometry or TECH 121.

**DESN 301. Architectural Graphics I** (3) I, II, summer. Architectural design and construction; development and use of elevation, plan, detail, and perspective drawings in planning and designing residential, business and industrial structures. Four hours of lecture and laboratory. Prerequisite: DESN 104 or permission of instructor.

**DESN 304. Mechanical Design** (3) I. On demand. Engineering graphics principles applied in design of structures, machines, production systems. Standard manuals and commercial catalogs used. Four hours of lecture and laboratory. Prerequisite: DESN 204.

**DESN 305. Technical Illustration** (3) II. Technical illustration for design presentation, assembly, repair and advertising. Variety of equipment, materials and techniques to accomplish various pictorial representations and design illustrations. Four hours of lecture and laboratory. Prerequisite: DESN 104.

**DESN 314. Design and Engineering Graphics I** (3) I, II. On demand. Each semester and summer. Design as process and engineering graphics as vehicle to communicate problem solutions. Documented design analysis, sketching, and instrument drawing applied to design problems involved industry and technology. Four hours of lecture and laboratory. For transfer students only. Obtain permission of department.

**DESN 336. Structural Design** (3) II. On demand. The study of numerical methods to determine the reactions, shearing force, and bending stress necessary to size structure members. Emphasis on floor framing systems, columns, connections and trusses in steel and timber according to design codes. Four hours of lecture and laboratory. Prerequisite: DESN 243.

**DESN 404. Computer Aided Design** (3) II even numbered years. Study and application of computer graphics systems to the design process. Use of interactive methods for design purposes with plotted or video output. Programming subroutines for graphics, two and three dimensional views, and surface generation. Four hours of lecture and laboratory. Prerequisites: DESN 104, CS 101.

**DESN 436. Planning and Design of Industrial Facilities** (3) I even numbered years, summer. Planning, estimating, design, and modeling of industrial facilities with consideration of management, personnel, production, aesthetics, and environment. Four hours of lecture and laboratory. Prerequisite: DESN 301.

**DESN 450. Architectural Graphics II** (3) II odd numbered years. Man made environment considered through advanced problems in architecture and the related graphics of presentation. Four hours of lecture and laboratory. Prerequisite: DESN 301.

**DESN 452. Design in Industry** (3) I even numbered years. System approach applied to solution of one and two dimensional product design problems; emphasis on feasibility in production and use. Prerequisites: ART 212, DESN 104, DESN 204, DESN 404.

**DESN 455. Engineering Design** (3) I odd numbered years. Problems in engineering design in such areas as human factors, value engineering, CPM/PERT which require advanced engineering graphics for solution. Four hours of lecture and laboratory. Prerequisite: DESN 304.

**DESN 490. Problems in Design Technology** On demand. For advanced students wanting to conduct intensive study of selected problems in design technology. Prerequisite: consent of school. Graded S/U.

## Electronic Technology (ET)

- ET 100. Energy Codes and Regulations** (1) Various federal, state and local codes which pertain to engineering technology; OSHA regulations, National Electric code and various EPA regulations. One hour of lecture.
- ET 147. Electricity** (3) I, II. Electron theory, OC circuit components; RLC circuits; power circuit concepts; 3 phase electric power; introduction to the use of electrical instruments. Two hours of lecture, four hours of laboratory. Prerequisite: TECH 121 or equivalent. Lab fee.
- ET 148. Electronics** (3) II, summer. Electronic devices, solid state and vacuum tube; application of electronic devices for power supplies, amplifiers, digital gates, oscillators and instruments. Two hours of lecture, four hours of laboratory. Prerequisite: ET 147. Lab fee.
- ET 201. Energy Production and Conservation Systems** (2) II. Principles, major elements, efficient operation of each part of a power plant system. One hour lecture, three hours laboratory. Prerequisite: ET 147 or consent of instructor.
- ET 244. Communication Circuits** (3) I. Fundamentals of communication circuits and amplifiers; amplifiers; amplifier design, components and applications, oscillators, communication components and principles of receivers and transmitters. Two hours of lecture, four hours of laboratory. Prerequisite: ET 245 or permission of instructor. Lab fee.
- ET 245. Communications Systems** (3) II. Applications of principles of communications circuits to large and complex systems. Techniques of transmission and radiation of electromagnetic energy applied to pulse television and microwave systems. Two hours of lecture, four hours of laboratory. Prerequisite: TECH 121 or equivalent.
- ET 247. Electrical Measurement and Instrumentation** (3) II. Electrical measurement and instrumentation devices, transducers and elements; principles underlying their design and use. Two hours of lecture, four hours of laboratory. Prerequisite: ET 148. Lab fee.
- ET 248. Industrial Equipment and Controls** (3) I. Automation and industrial control principles. Study and application of typical devices such as time control switches, motor controls, servo-mechanisms, photo-electric switches. Two hours of lecture and four hours of laboratory. Prerequisite: ET 148. Lab fee.
- ET 249. Digital Electronic Components and Systems** (3) I. Basic digital system logic analysis and synthesis techniques; number systems and codes; Boolean algebra and circuit minimization techniques. Characteristics of modern digital integrated circuit components. Two hours of lecture and four hours of laboratory. Prerequisite: ET 148. Lab fee.
- ET 290. Experimental Studies in Industrial Education and Technology** (1-3) I, II, summer. Experimental study projects, seminars and workshops dealing with topics in industrial technology.
- ET 291. Energy, Power, Instrumentation and Control-Cybernetics** (3) I, II, summer. On demand. Cybernetics, control system logic, instruments, sensors, control elements, and process regulation. Four hours of lecture and laboratory. Prerequisite: TECH 191.
- ET 300. Electric Machinery Controls** (3) Summer on demand, even numbered years. Electric motors, generators, assorted controls; operating characteristics, selection, testing of direct current single and three-phase machinery. Four hours of lecture and laboratory. Prerequisite: ET 291.
- ET 347. Electricity** (3) I, summer on demand. Electron theory; OC and AC units and theory; circuit component; circuit analysis techniques; RLC circuits; power concepts, use of test instruments. Four hours of lecture and laboratory. Prerequisite: TECH 191 or permission of instructor.
- ET 348. Electronics** (3) II, summer on demand. Electronic circuits, both analog and digital, plus semiconductors. Oesign and application of power supplies, amplifiers, oscillators, and digital gates to communication, instrumentation, and process control. Four hours of lecture and laboratory. Prerequisite: ET 347 or permission of instructor.
- ET 357. Electrical Power Transmission** (3) II. Power converters, polyphase distribution systems including conductors, transformers, voltage regulation, protection, control, phasing, and metering. Electrical codes, methods, and materials used in electric installation. Problems in electrical construction work. Four hours of lecture and laboratory. Prerequisite: TECH 191.
- ET 358. Digital Electronics** (3) I, summer on demand. Digital integrated circuit devices with medium and large scale applications. Digital families, their functions, use of specification sheets, discussion of digital system. Four hours of lecture and laboratory. Prerequisite: ET 348 or PHYS 201.
- ET 441. Instrumentation** (3) I, summer on demand. Industrial instrumentation. Measuring of mechanical, fluid, and electric phenomenon, transducers, recorders, indicators and controllers. Principles underlying their design and applications. Four hours of lecture and laboratory. Prerequisite: ET 291 or consent of instructor.
- ET 442. Digital Computer Analysis** (3) II, summer on demand. Organization and construction of mini-micro computers, machine language programming, interfacing, including developing logic design, selection of integrated circuits, assembly, testing and system diagnostic testing procedures. Four hours of lecture and laboratory. Prerequisite: ET 358 or consent of instructor.
- ET 443. Solid State Devices** (3) II even numbered years, summer on demand. Semiconductor devices operational amplifiers, MOS memories, SCR, unijunction and FET transistors. Theory of operations, manufacturing procedures, parameter specifications, performance, testing and applications. Four hours of lecture and laboratory. Prerequisite: ET 348 or consent of instructor.
- ET 453. Digital Computer for Process Control** (3) II, summer on demand. Industrial process control utilizing mini and/or micro computers. Organization and operation of computers, various process control modules (A/D and D/A), signal conditioning and converting, and design of process control system. Four hours of lecture and laboratory. Prerequisite: ET 291 or consent of instructor.

**ET 490. Problems in Electronic Technology** (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in electronic technology. Prerequisite: consent of school. Graded S/U.

**ET 491. Energy, Power Instrumentation and Control - Cybernetics** (3) I, II, summer on demand. Control system logic, instruments, sensors, control elements, and process regulation. Four hours of lecture and laboratory. For transfer students only. Obtain permission of department.

## Industrial Environment Technology (ENVR)

**ENVR 421. Industrial Pollution Control** (3) I. Air and water pollution control regulations as they apply to industry. Functioning and selection of parameters of industrial pollution control equipment and selected case studies.

**ENVR 490. Problems in Industrial Environment Technology** (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in industrial environment technology. Prerequisite: consent of school. Graded S/U.

## Industrial Education (IE)

**IE 252. Elements of Instruction** (3) I. Models of instruction as related to learner and functions and purposes of specialized career and technology education programs on all educational levels including individual observation and participation at various levels.

**IE 352. Instructional Scope and Sequence** (3) II. Oesign and implementation of instructional systems including performance objectives, appropriate content, teaching-learning strategies, and evaluation in specialized career and technology education programs on all educational levels including individual observation and participation at various levels. Prerequisite: IE 252.

**IE 428. Development of Training Programs** (3) II even numbered years, on demand. Design production and evaluation of training programs for industry and business. Task analysis work design, and cost analysis in development of training programs.

**IE 447. Teaching Technology Systems** (3) I. Integration and use of principles developed in previous methods courses and laboratory settings; selection, organization, adaptation, and use of instructional materials or curriculum projects related to industrial technology systems. Prerequisite: MFG 214, CONS 235.

**IE 449. Organization and Administration** (3) I. Financial and business procedures, program, laboratory, and equipment planning; maintenance programs, classroom and laboratory management systems; purchasing, storage, dispensing and inventory control procedures; public relations, cocurricular responsibilities, innovative programs. Prerequisites: IE 352 and IE 497.

**IE 462. Career and Technology Education in Elementary Schools** (3) II, summer, on demand. Development and evaluation of instructional activities to facilitate career development and understanding of technology among elementary children. One one- and one-half-hour lecture and two one- and one-half-hour laboratories.



**IE 470. Coordinating Cooperative Education Programs II**, odd numbered years. Prepared coordinator of cooperative work education programs in all phases of career and technology education. Readings, discussions, and field experiences designed to develop understanding of various types of cooperative programs, role of coordinator, and related instruction.

**IE 490. Problems in Industrial Education** On demand. For advanced student wanting to conduct intensive study of selected problems in industrial education. Prerequisite: consent of school. Graded S/U.

**IE 492. Student Teaching (1-10)** I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

**IE 497. Student Teaching (1-10)** I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

## Manufacturing Technology (MFG)

◆ **MFG 113. Non-Metallic Materials and Processes (3)** I, II, summer on demand. Processing equipment, methods, operations, procedures, and design utilized in production of non-metallic products; raw materials sources; methods of conversion and testing. Four hours of lecture and laboratory.

◆ **MFG 114. Metallic Materials and Processes (3)** I, II, summer on demand. Materials properties, fabricating equipment and methods and procedures used in production of metallic products. Four hours of lecture and laboratory.

† **MFG 211. Manufacturing Processes II - Forming, Combining (3)** Alternate years. Traditional and non-traditional forming and combining processes in plastics; extrusion, injection, compression, vacuum, fiberglass, rotation and other processes stressed. Emphasis on industrial applications. Field visits to plastics processing plants. Two hours lecture, three hours laboratory. Prerequisite: MFG 113.

† **MFG 213. Non-Traditional Manufacturing Processes II (3)** II. Alternate years. Numerical control, EDM, advanced machining and material removal. Programming, testing, and cutting with numerical controlled and standard metal cutting tools. Two hours lecture, three hours laboratory. Prerequisites: MFG 114 and AMS 100.

◆ **MFG 214. Manufacturing Processes (3)** I, II, summer on demand. Production methods, processing equipment, tooling, organization and control employed in manufacturing industries. Four hours of lecture and laboratory. Prerequisites: MFG 113, MFG 114.

† **MFG 215. Metallurgy and Metrology (3)** Alternate years. Physical metallurgy and heat treatment of metals; metal structure, alloys, tool steels, tempering, and powder metallurgy. Study of instruments and machines for measuring dimensions and surface finishes of machine tools. Two hours lecture, three hours laboratory.

**MFG 311. Machine Tool Processes I (3)** I, summer on demand. Setup and operation of precision metal processing machine tools. Tool preparation and introduction to numerical control programming. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 114.

**MFG 323. Wood Processing Technology (3)** II. Advanced study of wood and wood-composite materials, processing methods, and product applications. Four hours of lecture and laboratory. Prerequisite: MFG 113 or permission of instructor.

**MFG 329. Plastics Processing Technology (3)** I. Identification, properties, characteristics, and selection of plastics materials. Set-up and operation of primary and secondary plastics processing equipment. Basic mold design and construction. Two one-hour lectures and one two-hour laboratory per week. Prerequisite: MFG 113.

**MFG 333. Non-Metallic Materials and Processes (3)** I, II, summer, on demand. Processing equipment, methods, operations, procedures, and design utilized in production of non-metallic products; raw material sources; methods of conversion and testing. Four hours of lecture and laboratory. For transfer students only. Obtain permission of school.

**MFG 334. Metallic Materials and Processes (3)** I, II, summer on demand. Materials properties, fabricating equipment, and methods and procedures used in production of metallic products. Four hours of lecture and laboratory. For transfer students only. Obtain permission of school.

**MFG 338. Materials and Metallurgy (3)** II. Metallurgical structure and its effects on properties of ferrous and nonferrous metals and alloys. Properties of metallic and nonmetallic materials that affect their selection and performance in industrial products. Four hours of lecture and laboratory. Prerequisites: MFG 113 and MFG 114.

**MFG 361. Welding Processes I (3)** I, summer on demand. Welding processes in joining metals, strength of materials in welded joints, technological developments in the welding industry. Skill emphasis on flat and horizontal using SMAW and oxy-acetylene. Four hours of lecture and laboratory. Prerequisite: 114 or consent of instructor.

**MFG 424. Manufacturing Processes (3)** I, II, summer. On demand. Production methods, process equipment, tooling, organization and control employed in manufacturing industries. Four-and-one-half hours lecture and laboratory. Prerequisites: MFG 113, 114. Obtain permission of school.

**MFG 426. Quality Assurance (3)** I, II. Use and selection of inspection equipment, planning and controlling of quality at strategic points in manufacturing process, and assurance of receiving, fabricating, and shipping acceptable materials. Two one-hour lectures and two hours of laboratory. Prerequisites: MFG 214 and MATH 115, or consent of instructor.

**MFG 427. Work Measurement and Analysis (3)** I, II. Design and measurement of work and techniques of setting work standards to effectively use tools, equipment, and manpower. Work measurement and application of principles of motion economy in practical situations. Two one-hour lectures and two hours of laboratory. Prerequisite: MFG 214 or consent of instructor.

**MFG 451. Casting Processes (3)** odd numbered years. Foundry operations in industry. Pattern making, core making, molding, melting, furnace operation, pouring of metals, and cleaning of castings. Four hours of lecture and laboratory. Prerequisite: MFG 114.

**MFG 458. Machine Tool Processes II (3)** II even numbered years, summer on demand. Advanced precision metal machine tool processes, production machines, and related tooling problems. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 311.

**MFG 459. Ceramics Processing Technology (3)** I even numbered years. Materials and processing methods employed in the ceramic industries. Materials selection, batch and body making, basic mold design and construction. Four hours of lecture and laboratory. Prerequisite: MFG 113 or consent of instructor.

**MFG 461. Sheet Metal Forming and Fabrication (3)** II odd numbered years. Methods of pattern development, forming and fabrication methods used in sheet metal processing. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 114.

**MFG 463. Welding Processes II (3)** II, summer on demand. Welding of metals using oxy-acetylene, electric arc, MIG and TIG processes including welding metallurgy; weld testing; design and construction of welded items; new technology development in welding. Skill emphasis on horizontal, vertical and overhead welding. Four hours of lecture and laboratory. Prerequisite: MFG 361.

**MFG 490. Problems in Manufacturing Technology (1-5)** On demand. For advanced students wanting to conduct intensive study of selected problems in manufacturing technology. Prerequisite: consent of school. Graded S/U.

## Technology (TECH)

**TECH 121. Industrial Mathematics (3)** I, II, summer. Mathematics as applied in industry and technology. Problems in geometry, algebra, trigonometry and calculus.

◆ **TECH 152. Introduction to Technology - The Man-Made World (3)** I, II, summer. Through active participation in a variety of individual, small group, and class problem solving activities, students are introduced to principles and developments which consider technology as shaper of the man-made world, man's career and other roles, and influencing the future.

◆ **TECH 191. Energy, Power, Instrumentation, and Control - Mechanization (3)** I, II, summer on demand. Mechanization, energy conversion into useful electrical, fluid, or mechanical power and associated transmission, instrumentation, and controlling devices. Four hours of lecture and laboratory.

† **TECH 218. Management and Supervision (2)** I. Responsibilities of management and supervision within manufacturing industries; organization, duties and responsibilities; human relations, training, promotion, and management-employee relations. Use of case studies and personal experiences of guest speakers.

**TECH 223. Mechanical Power Transmission (3)** II odd numbered years. Mechanical drive systems and applications. Design, operation, maintenance of mechanical power systems used in industry. Four hours of lecture and laboratory. Prerequisite: TECH 191.

**TECH 289. Cooperative Education** (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's intended areas of concentration. Prerequisites: consent of department. Graded S/U.

†**TECH 291. Student Intern Program** (3) I, II, summer. Ten weeks of paid field work in engineering technology under supervision of regulatory agency or private industrial concern. Prerequisite: consent of instructor.

**TECH 313. Handicrafts** (3) I, II, summers on demand. Creative possibilities inherent in wide variety of materials and tool operations. Development of lifetime recreational interests, and abilities to direct activities in schools, camps for handicapped, and adult education. Four hours of lecture and laboratory.

**TECH 322. Introduction to Technology – Man-made World** (3) I, II, summer. Active participation in individual, small group, and class problem solving activities. Principles and developments which consider technology as shaper of man-made world, man's career and other roles, influence on the future. For transfer students only. Obtain permission of school.

**TECH 323. Fluid Power Transmission** (3) Odd numbered years. Pumps, motors, valves, circuits, applications of hydraulic and pneumatic power systems. Design, operation, maintenance of fluid power systems used in industry. Four hours of lecture and laboratory. Prerequisite: TECH 191.

**TECH 389. Cooperative Education** (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's area of concentration. Prerequisite: TECH 289. Graded S/U.

**TECH 391. Internal Combustion Engines** (3) I, II, summer on demand. Student chooses to study Otto (gasoline) or diesel cycles engines; emphasizes fundamentals of assembly, disassembly, testing and measurement procedures. One one-hour lecture and two two-hour laboratories. Prerequisite: TECH 191 or consent of instructor.

**TECH 392. Energy, Power, Instrumentation, and Control – Mechanization** (3) I, II, summer on demand. Mechanization, energy conversion into useful electrical, fluid or mechanical power and associated transmission, instrumentation and controlling devices. Four hours of lecture and laboratory. For transfer students only. Obtain permission of department.

**TECH 454. Energy Conversion and Power Transmission** (3) On demand. Existing and developing systems of energy conversion and power problems of fuel efficiency, pollution, potential, maintenance and application. Four hours of lecture and laboratory. Prerequisite: TECH 191.

**TECH 457. Handicrafts for Recreation, Therapy and Teaching Professions** (3) I, II, summer on demand. Creative possibilities using various materials and tools in development of personal lifetime recreational interests and skill in directing others in such activities. Four hours of lecture and laboratory. Prerequisite: TECH 313 or permission of instructor.

**TECH 489. Cooperative Education** (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's intended areas of concentration. May be repeated to six hours. Prerequisite: TECH 389. Graded S/U.

**TECH 490. Problems in Technology.** On demand. For advanced students wanting to conduct intensive study of selected problems in technology. Prerequisite: consent of school.

## Visual Communication Technology (VCT)

**VCT 203. Visual Communication Technology** (3) I, II, summer. Visual communication theory and processes; television production, film making, continuous tone photography, slide presentations, multimedia production and image transfer systems. Four hours of lecture/laboratory.

◆**VCT 208. Graphic Communications** (3) I, II, summer. Overview of major printing processes; concentration in offset lithography; line-photography, study and experiences in image design, image assembly, photo conversion, image carrier preparation, and image transfer. Four hours of lecture/laboratory.

**VCT 209. Screen Process Printing** (3) I, II, summer. Hand cut and photographic screen process image conversion; single and multiple color process. Four hours of lecture/laboratory.

**VCT 282. Photography I** (3) I, II, summer. Introductory course concentrating on basic camera and darkroom techniques. Experiences in film processing and printing techniques as well as basic camera operation. Four hours of lecture/laboratory.

**VCT 308. Photo Offset Printing** (3) I, II, summer. "Prepress" areas of graphic reproduction. Art preparation techniques, typography, line and halftone photography, exposure calibrating, and tone reproduction printing requirements. Cold type composition, spacing and copyfitting. Four hours lecture/laboratory.

**VCT 309. Photo Offset Printing II** (3) I, II, summer. Stripping, imposition procedures, and platemaking; offset lithographic printing press theory, maintenance and operation. Ink and paper in relationship to offset presswork. Theory and practical experience in four-color-process reproduction. Four hours lecture/laboratory.

**VCT 382. Photography II** (3) I, II, summer. An in-depth course dealing with sensitometric characteristics of film, problem solving for specific photo problems and using techniques to produce consistent, quality negatives and prints. Four hours lecture/laboratory. Prerequisite: VCT 282.

**VCT 386. Animation Technology** (3) I, II, summer. Types and techniques of animation and animated films. Structured experiences in producing simple film and effector animations. Four hours lecture/laboratory. Prerequisite: 203 or RTVF 364.

**VCT 456. Color Process Photography** (3) I, II, summer. In-depth study of process photography for reproduction of photographs and illustrations in black and white and color. Halftones, duotones (black and color), mechanical color separation, photographic four-color-separation, color posterization, and color proofing systems. Four hours lecture/laboratory. Prerequisite: VCT 208 and VCT 308 and VCT 309.

**VCT 460. Photography** (3) I, II, summer. Research and experimentation in special effects photography and creative darkroom techniques. Four hours lecture/laboratory. Prerequisite: VCT 282.

**VCT 465. Photography in Commerce and Industry** (3) I, II, summer. Advanced camera and lighting techniques, studio and darkroom design and management as applied to commercial and industrial photographic fields. Four hours lecture/laboratory. Prerequisite: VCT 282, VCT 382, and ART 211.

**VCT 466. Projected Communication** (3) I, II, summer. Communication problem solving through exploration and experimentation in 35mm slide presentations; techniques in multi-screen, multi-image, and multimedia. Four hours lecture/laboratory. Prerequisites: VCT 208 and VCT 282.

**VCT 467. Visual Communications Technology Synthesis** (3) I, II, summer. Techniques of problem solving; aesthetic and technical qualities of presentation. Four hours lecture/laboratory. Prerequisites: VCT 208, VCT 308 and ART 211 plus senior standing.

**VCT 468. Video Tape Recordings in Visual Communications Technology** (3) I, II, summer. Both ½" and ¾" video tape productions: Television recording theory, production designing, and planning and use techniques with sub-professional equipment. Four hours lecture/laboratory. Prerequisites: VCT 203 and RTVF 263.

**VCT 482. Photography III** (3) I, II, summer. Fundamentals of the Zone System and introduces large format photography. Emphasis on learning the structure of the Zone System and its application to all areas of photography. Four hours lecture/laboratory. Prerequisites: VCT 282 and VCT 382.

**VCT 490. Problems in Visual Communication Technology** (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in visual communication technology. Prerequisite: consent of school and instructor. Graded S/U.

**Mathematics Placement Information**

The sequence of courses which leads to upper-division course work is the standard calculus, MATH 131-232-233. Depending on placement test score, it may be necessary to take algebra and precalculus courses before taking calculus. The main sequence is MATH 095-128-131-232-233.

There are parallel courses which are shorter versions of some of these courses: MATH 096 for MATH 095; and MATH 129 or MATH 130 for MATH 128. These shorter versions increase the number of entry points into the main sequence described above. MATH 127 followed by MATH 129 may be substituted for MATH 128. Any student planning to take advanced mathematics courses should enter the main sequence at the point determined by the placement test. Many programs require or recommend completion of part of this sequence, and sometimes more. Some programs may substitute Basic Calculus: MATH 124-125, preceded by MATH 095 or MATH 096 if necessary. MATH 115-116, probability and statistics, may be used to satisfy many requirements (also possibly preceded by MATH 095 or MATH 096 if necessary.) MATH 121 may be used for a general mathematics course, but it is not intended for improvement of algebraic skills and is a terminal course.

The choice of the proper course sequence to enter depends on the program, the future plans of the student and the possible changes that may take place in those plans. It is important that the choice made now does not prevent future options. Students in the College of Business are required to complete either MATH 125 or MATH 131. Students who are well prepared will have to take fewer hours if they take MATH 131. Also MATH 131, or more, is required in some programs, and it is recommended in some others. In Arts and Sciences the selection depends on the degree program. MATH 131 is required for the B.S. degree, so these students must enter the main sequence leading to MATH 131. The requirement for the B.A. degree may be satisfied by several courses. For requirements and recommendations in other programs and colleges, consult the appropriate section of the catalog.

Once the course sequence has been determined, placement into the proper course will be done by an adviser using the results of the Mathematics Placement Test. Initial screening is done using high school records and ACT scores. The score on the appropriate form of the placement test will then determine the final recommendation. The test is given at freshman Pre-Registration, and it may be taken at other times by contacting the department office 450 Mathematical Sciences Building, 372-2636.

Advanced placement in the standard calculus sequence, MATH 131-232-233, is possible in two ways. Students may take the Calculus AB or Calculus BC test of the Advanced Placement Program given during their senior year in high school. There is also a test given at the beginning of the fall semester by the department. In both cases credit may also be earned.

**NOTICE:** Unless otherwise specified, a grade of A, B, C or S is required in the stated prerequisites for a given course. Note the effect of repeating a course in which a grade of D is received. Exceptions to the stated prerequisites can be made only with the approval of the instructor.



# Faculty

## Faculty\*\*

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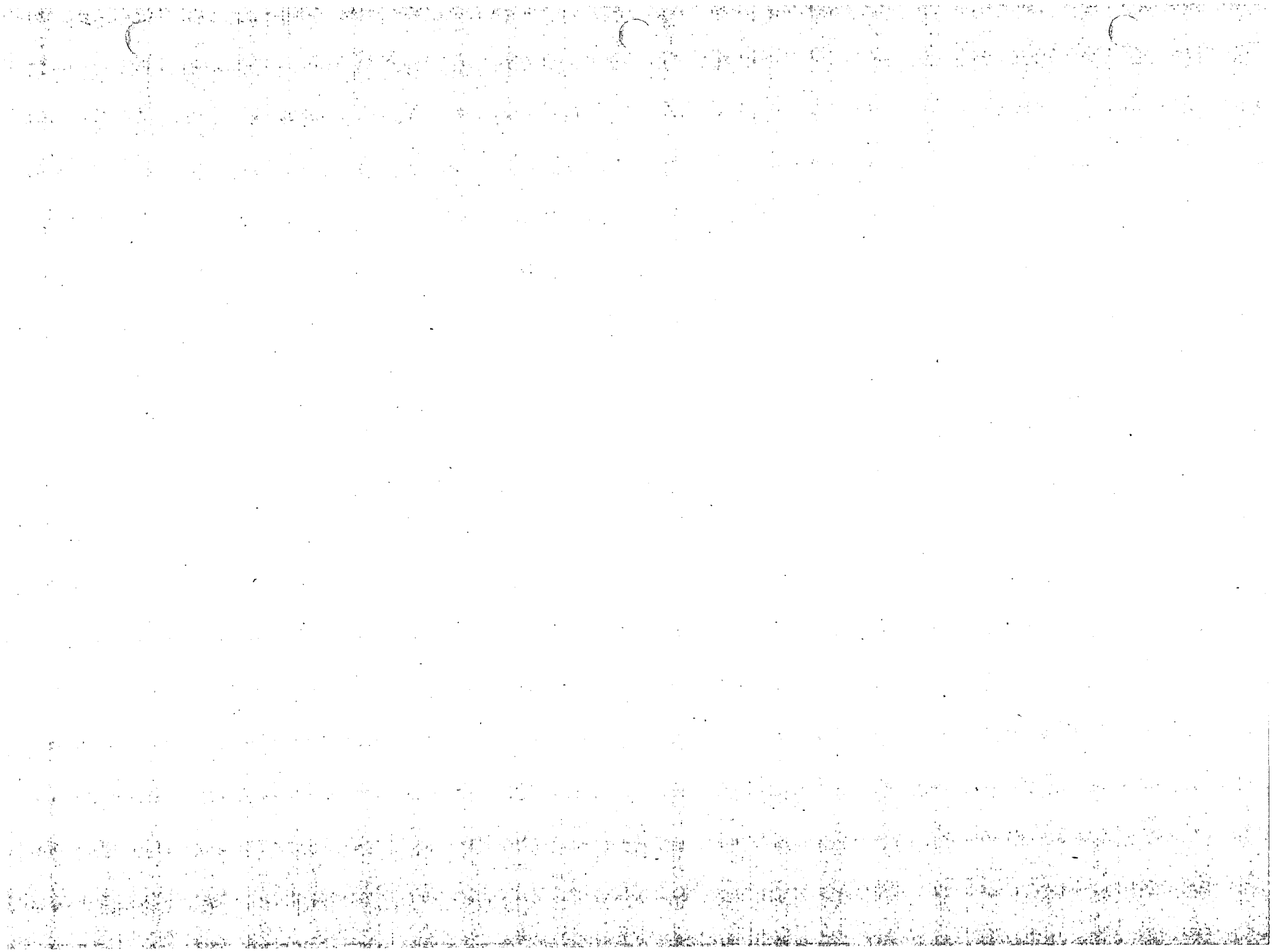
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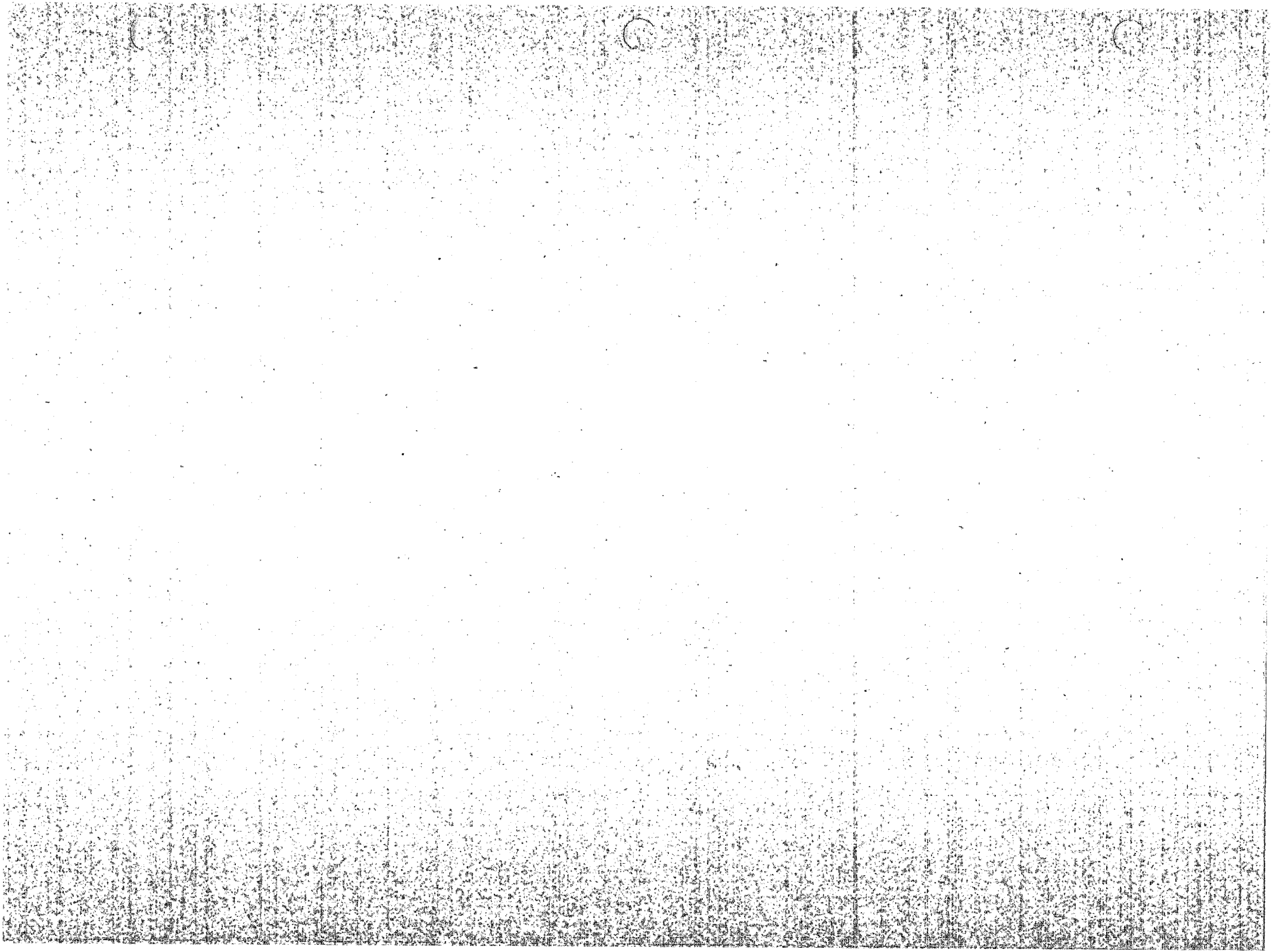
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### Accessibility Code

- AA** Totally accessible
- A** Accessible with telephones, fountains; no accessible restrooms
- B** Accessible first floor only; limited facilities
- C** Totally accessible; limited facilities

Buildings with no designation are considered nonaccessible.

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