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BRIDGEWATER
COLLEGE

ACADEMIC CATALOG

2014 – 2015



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ACADEMIC CALENDAR

Fall Semester 2014

Aug. 18–21	Faculty Meetings Days
Aug. 20–22	International Student Orientation
Aug. 22	New Student Move-In
Aug. 22–25	New Student Orientation
Aug. 25	Fall Registration
Aug. 26	First Day of Fall Classes
Sept. 2	Last Day to Add a Class
Oct. 3–4	Family Weekend
Oct. 10	Fall Break (begins after last class)
Oct. 15	Classes Resume
Oct. 17	Mid-Term Grades Due
Oct. 24–25	Homecoming
Nov. 5	Last Day to Withdraw
Nov. 6–7	Fall Board Meeting
Nov. 25	Thanksgiving Break (begins after last class)
Dec. 1	Classes Resume
Dec. 5	Last Day of Classes
Dec. 6–7	Reading Days
Dec. 8–12	Exams

Interterm 2015

Jan. 5	Interterm Begins
Jan. 23	Interterm Ends
Jan. 24–26	Interterm Break

Spring Semester 2015

Jan. 27	Spring Registration
Jan. 28	Spring Classes Begin
Feb. 3	Last Day to Add a Class
March 6	Spring Break (begins after last class)

March 16	Classes Resume
March 20	Mid-Term Grades Due
April 2	Easter Break (begins after last class)
April 7	Classes Resume
April 7	Founder's Day
April 7	Last Day to Withdraw
April 9–10	Spring Board Meeting
May 5	Last Day of Spring Classes
May 6	Reading Day
May 7–9	Exams
May 10	Reading Day
May 11–12	Exams
May 15	Baccalaureate
May 16	Commencement

Summer Sessions 2015

June 1	Session 1 Begins
June 19	Session 1 Ends
June 22	Session 2 Begins
July 3	Independence Day Holiday
July 31	Session 2 Ends

2014 – 2015

one hundred thirty fifth session

BRIDGEWATER COLLEGE

COLLEGE *of* CHARACTER
COMMUNITY *of* EXCELLENCE

ADDRESS: 402 East College Street, Bridgewater, Virginia 22812-1599

PHONE: 540-828-8000, General Information: 800-476-4289, Admissions: 800-759-8328

ONLINE: bridgewater.edu



Accreditation

Bridgewater College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the baccalaureate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Bridgewater College. The College is also accredited by the State Board of Education of Virginia and offers a state-approved program of teacher education. Bridgewater College is a member of the American Council on Education, the Council of Independent Colleges and the National Association of Independent Colleges and Universities.

The Bridgewater College catalog is a multi-purpose document, not a contract. The catalog describes the courses of study, explains certain rules and regulations, states the cost of attendance, contains lists of the administration and faculty and describes other aspects of campus life in effect at the time of publication. All of these items are subject to change, and the continuation of a specific course, policy or requirement is not guaranteed. Not all College policies and procedures affecting students are described in the College catalog. Please refer to the Eagle Student Handbook for additional information.

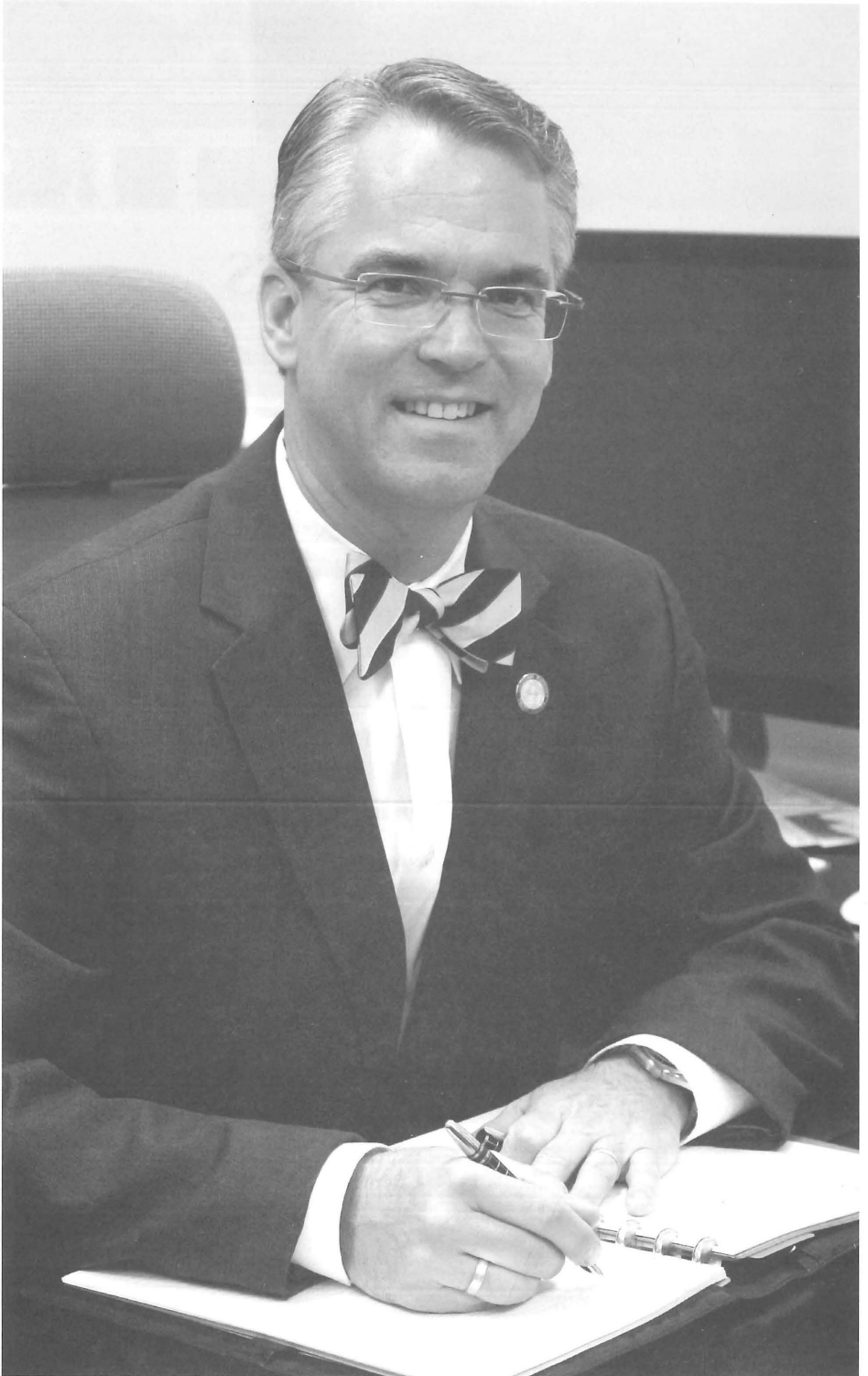
Mission

Bridgewater College educates the whole person by providing a challenging and supportive learning community that fosters the growth of its students and empowers and motivates them to live educated, intelligent, healthy, purposeful and ethical lives in a global society. The College embraces the core values of integrity, equality, service and community, which have been inspired by its history with the Church of the Brethren. The College is a welcoming, diverse and vibrant community, committed to understanding and respecting individual differences and actively engaging all of its members.



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August 2014

Welcome to the Bridgewater College community. As you explore the courses and opportunities at BC, know that we are committed to working with you throughout your time here so that you can get the most out of your Bridgewater Experience. You will be challenged to examine ideas in new ways and utilize the tools of critical thinking and analysis from your very first day here, to turn your classroom learning into experiential practice, and to engage the College's ideals of Goodness, Truth, Beauty and Harmony—the words found on our College seal—across your educational experience.

With a Bridgewater education, you'll be well-prepared for a job or graduate school in your chosen field, but, more than that, you'll be equipped for a life of professional accomplishment and personal fulfillment. You'll be ready to make a difference in the world around you. Our mission statement says it best: a liberal arts education from BC will prepare you, and every student at the College, "to live educated, intelligent, healthy, purposeful and ethical lives."

See what Bridgewater has to offer you and embrace the challenge to grow.

Sincerely,

David W. Bushman, Ph.D.
President

MAJORS, MINORS *and* PROGRAMS

PROGRAM OF STUDY	MAJOR		MINOR	PAGE
	B.A.	B.S.		
Applied Chemistry		■	■	81
Applied Physics		■		199
Engineering Physics		■		199
Physics and Technology		■		199
Physical Science		■		199
Art	■		■	62
Athletic Training		■		134
Biology		■	■	69
Business Administration	■		■	97
Chemistry		■		81
Coaching			■	134
Communication Studies		■	■	87
Computer Information Systems			■	173
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Crime and Justice			■	210
Cultural Studies			■	210
Economics	■		■	97
Education				108
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Writing	■			118
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Language and Literature	■			118
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German			■	219
Global Studies	■		■	152
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Health and Physical Education		■		134
History	■		■	152
History and Political Science	■			152
Liberal Arts	■			152
Social Studies History	■			152
Social Studies Government	■			152

Information Systems Management	■			173
Liberal Studies (only available in PreK–6)	■			108
Mathematics	■		■	173
Music	■		■	183
Neuroscience			■	204
Nutrition and Wellness		■	■	134
Peace Studies			■	191
Philosophy and Religion	■		■	191
Physical Chemistry			■	81
Physics		■	■	199
Physics and Mathematics		■		199
Political Science	■	■	■	152
Standard	■			152
Public Policy		■		152
Pre-Law	■			152
Psychology		■	■	204
Social Work			■	210
Sociology	■			210
Spanish	■		■	219
Theatre			■	87

Emphases

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Church Music
Finance
Financial Economics
International Commerce
Marketing
Organization Management
Wildlife Biology

Concentrations

American Civil War
American Studies
Digital Media
Multimedia Authoring
Politics and Public Policy
Pre-Law
Public History

Teacher Certification

Elementary (PreK–6)
Secondary (6–12)

Teacher Endorsement (PreK–12)

English as a Second Language
Foreign Languages
Health and Physical Education
Music, Vocal and Instrumental
Theatre Arts
Visual Arts

Pre-Professional Programs

Dentistry
Engineering
Law
Medicine
Ministry
Occupational Therapy
Pharmacy
Physical Therapy
Physician Assistant
Veterinary Science

Dual Degree Programs

Engineering—The George Washington University and Virginia Tech
Nursing—Vanderbilt University
Physical Therapy—Shenandoah University



the BRIDGEWATER EXPERIENCE

Welcome to the Bridgewater Experience. Bridgewater College is committed to empowering every student to excel in their future lives and careers, embrace lifelong learning, understand personal and civic responsibility, develop ethical values and become leaders in a global society.

Bridgewater offers bachelor of arts and bachelor of science degrees in more than 60 majors and minors. Through personalized advising programs, rigorous academics and strong pre-professional programs, you will be prepared to enter top graduate programs and pursue the career you desire. Learning at Bridgewater College reaches far beyond the classroom...and far beyond the academic. Students develop not only intellectually, but also socially, ethically and spiritually.

Bridgewater students have:

- performed undergraduate research in the lab and in the fields and streams of the Shenandoah Valley;
- formed a campus environmental task force;
- excelled in nationwide competitions in business and computer science;
- assisted a poverty outreach center in the local community;
- performed at a prestigious theater festival; and
- dedicated time to 22 intercollegiate sports.

International study opportunities and global perspectives on campus will challenge you to consider new ideas through the diverse array of cultures, interests and beliefs in both the campus community and the broader world.

Your classes will illustrate the challenge of understanding and taking responsibility for the civic institutions on which we and our local, national and international communities depend. The College fosters such responsibility by preparing you to think critically and evaluate evidence, developing thoughtful stewardship for the earth's beauty and resources, and encouraging you to reflect on and fulfill your role as a local, national and global citizen.

You will have exceptional opportunities to work one-on-one with faculty mentors and engage in personalized independent study or directed research. In addition, learning through real-world internships and practicums is a critical part of career preparation at Bridgewater.

With more than 60 clubs and organizations, there is an opportunity for everyone to be involved on campus. Theatrical and musical performances are integral to campus life, and nearly a third of the student body participates in intercollegiate athletics at the NCAA Division III level.

Bridgewater nurtures its members' ethical and spiritual development by providing varied opportunities for religious expression and by equipping students to critically consider their ethical choices and spiritual orientations. Valuing inquiry as much as answers, in matters spiritual as well as intellectual, the College embraces diverse approaches to spirituality within and outside the Christian faith, prescribing no single path for its members. The community values inclusive and open conversation about religious matters, while respecting those who consider their spiritual quest to be a private concern.

Bridgewater also educates students to live healthy lives. This includes courses, athletics, intramural sports and programs in which students apply the concepts of physical and emotional wellness to their lives in an ongoing and meaningful way.

As a Bridgewater student, you will be an active, engaged, contributing member of a learning community that was founded and has been sustained for the purpose of empowering graduates to use their education for the common good. Your personal goals and capabilities will be nurtured to their full potential as you are equipped to fulfill those aspirations in an increasingly global, technologically driven, complex society.

CAREER OPPORTUNITIES

Recent graduates of Bridgewater College are in careers with companies such as Disney, PricewaterhouseCoopers, Dell and Merck, and in graduate programs at such schools as Yale, Princeton, Oxford, Johns Hopkins and Wake Forest, among others.

Business

Bachelor's degrees in either business administration or economics prepare you for an array of careers in the business world, from entrepreneurial small business to global corporations. Emphases are offered in accounting, finance, international commerce, organizational management, marketing and financial economics.

Communication Studies

Communication studies graduates are well-prepared for a variety of jobs in the business world, the non-profit sector or public service, including advertising, public relations, media, human resources and research.

Dentistry, Pharmacy or Physical Therapy

Admission to schools of dentistry, pharmacy and physical therapy is highly competitive.

Prospective dentistry students will want to plan their curriculum with the pre-medical advisor in the biology department. Pre-pharmacy students should consult with the chemistry department chair, while physical and occupational therapy students should plan courses within the health and human sciences department. The College has an articulation agreement with Shenandoah University leading to graduate degrees in physical therapy.

Education

Prospective students who seek teacher certification are strongly encouraged to consult early with the education department faculty regarding a choice of major. The College offers curricula leading to the bachelor's degree and a state-approved program for teacher certification in Virginia at the PreK-6, 6-12 and PreK-12 levels. A student completing this program may be certified to teach in more than 20 states. Interested students should consult with the chair of the education department.

Engineering

A student who completes 91 credit hours at Bridgewater College, including the general education requirements and the requisite courses in science and mathematics, may be admitted to one of two engineering schools where, in two additional years, a bachelor's degree in one of several engineering fields may be earned at the same time a bachelor's degree is earned at Bridgewater College. Bridgewater has articulation agreements for such programs with The George Washington University and Virginia Tech. Students interested in this program should consult with the vice president and dean for academic affairs and the chair of the physics department.

Graduate School

Bridgewater students planning careers in research, in various professions, or as college and university professors enter the leading graduate schools in the United States each year to pursue work leading to the M.A., M.S. or M.B.A., the Ph.D., or a professional degree. Students interested in pursuing graduate studies should consult with their faculty advisors concerning appropriate preparation and application procedures. Additional information and assistance is available in the office of career services.

Law

Students seeking to pursue a career in law need an education that prepares them to read effectively, to write clearly and to think analytically. Choosing either the pre-law track as a political science major or combining the pre-law concentration with a major in the humanities is recommended. College debate experience and an internship in a law office in the junior or senior year can provide valuable added preparation. Students who are interested in a career in law should discuss their options with the pre-law advisor.

Medicine

Completion of a curriculum containing a major in biology or psychology is recommended. Because admission to medical school is highly competitive, the student is advised to plan an appropriate curriculum with the pre-medical advisor in the biology department.

Ministry

Students interested in the ministry, religious education or graduate school in philosophy or religion should select the philosophy and religion major at Bridgewater College. In the last

decade, 98 percent of majors (and minors) from the philosophy and religion program who have applied to graduate schools have been accepted.

Social Work

A four-year program with a concentration in sociology leading to the bachelor's degree is recommended for those who wish to enter social work following graduation from college as well as for those who wish to pursue a graduate program in preparation for social work. The sociology department offers a minor in social work that is usually coupled with a major in either sociology or psychology.

Veterinary Science

Prospective veterinary students should take the pre-medical curriculum offered at Bridgewater along with appropriate electives. Those interested in veterinary science should consult with the chair of the biology department. Students may benefit from an accelerated degree program offered by Virginia Tech.

BRIDGEWATER PAST *and* PRESENT

Bridgewater College is an independent, private liberal arts college founded in 1880 and was the first private, coeducational college in Virginia. Founded as Spring Creek Normal School and Collegiate Institute by Daniel Christian Flory, an alumnus of the University of Virginia and a leader in the Church of the Brethren, who wanted to bring the values and benefits of Jefferson's "Academic Village" to the Shenandoah Valley, the school was named Bridgewater College nine years later and chartered by the Commonwealth of Virginia to grant undergraduate degrees. Bridgewater conferred its first bachelor of arts degree on June 1, 1891.

Given its heritage of peace, justice, equality, service and human dignity, the College has consistently promoted these values in an inclusive and caring community focused on developing the whole person—mind, body and spirit.

Today, Bridgewater has a total enrollment of more than 1,800 students, with small class sizes, thus ensuring that the College provides a tightly-knit academic community where faculty, staff and students know each other on an individual basis. Bridgewater's size allows students more opportunities than they might have at larger schools—more opportunities to participate in sports, theatre, music, clubs and organizations; to exercise leadership; and to develop and achieve their potential in different ways.

Bridgewater College has an honorable history spanning more than 130 years. It has remained true to its ideals by encouraging freedom of thought, being a pioneer in coeducation and racial integration, growing and developing to meet the changing needs of its students, insisting on high academic standards and educating future leaders in society.



LOCATION

Bridgewater College is located in the heart of the Shenandoah Valley of Virginia, only two hours southwest of the Washington, D.C. metropolitan area.

Situated in this beautiful and historic setting near the Blue Ridge Mountains, the Bridgewater campus is comprised of nearly 300 acres (including the BC Equestrian Center).

Bridgewater College offers its students a variety of housing options. A virtual tour and a campus map with a complete listing of campus buildings are available at bridgewater.edu.

ADMISSIONS

REQUIREMENTS

Bridgewater College welcomes all applicants with a high school education or previous college experience, international students and those looking to re-enter college for preparation for a new career.

Admission to Bridgewater College is granted to those who present evidence of the ability to succeed in the academic and social atmosphere that the College expects. Applicants should exhibit the following criteria:

1. **Graduation from an accredited senior high school or secondary school**—The program of courses completed in high school should include the following credits: four in English; two in one foreign language; three in college preparatory mathematics, to include algebra, geometry and algebra II; two in social studies and history; two in sciences to include a lab unit(s); and four in suitable electives. While the electives may be in vocational or non-academic subjects, it is recommended that they be in academic subjects such as English, science, mathematics and social studies. Applicants from Virginia high schools are encouraged to take a program leading to the Advanced Studies Diploma.
2. **Superior scholarship on the secondary school program completed**—The grades or marks made on the high school or secondary school program and scores made on achievement tests covering the secondary school subjects should be high enough to give reasonable assurance of ability to do college work. Rank in the upper half of the graduating class is normally required. If an applicant ranks lower than the upper half, strong additional qualities need to be demonstrated in order to gain admission.
3. **A satisfactory score on a standardized test (SAT/ACT)**—Students must submit official scores from either the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the American College Test (ACT) of the American College Testing Program. Official scores may be submitted by the student's high school or directly from the official testing center.
4. **Good character**—Success in a liberal arts college depends not only upon the type and quality of secondary school program completed but also upon personal integrity, honesty and ethics. Applicants may be asked to submit references that testify to evidence of these qualities.
5. **Guidelines for students who are home-schooled**—The Admissions Committee evaluates all students who are home-schooled for admission to Bridgewater College. The criteria for admission are essentially the same for all applicants in terms of SAT or ACT scores, recommendations and high school transcripts. The transcript can be obtained through your home-school association. If you are not associated with a specific organization, Bridgewater will accept a transcript put together by the home-schooling parent. A campus visit is highly recommended.
6. **Guidelines for applicants who have a GED**—The Admissions Committee evaluates all students who have earned a GED. An SAT or ACT score is required for consideration in addition to recommendations in support of one's application. A copy

of the GED certificate must be submitted as well as a transcript of any completed high school coursework.

Freshman Admission

Students who anticipate graduating from high school and plan to directly enter Bridgewater College should apply for admission as a freshman. Apply online at bridgewater.edu/admissions. Application deadlines are **May 1** for fall semester and **January 1** for spring semester.

In addition to submitting the application form, all prospective students must submit the following supporting documents:

1. **The high school or secondary school transcript**—The transcript should include the high school grade point average (GPA) on a 4.0 scale and the student's rank within their senior class if available.
2. **Standardized test scores (SAT or ACT)**—Scores should be submitted through the official testing center or the student's high school. Bridgewater's SAT college code is 005069 and the ACT college code is 4342.

Applicants may also consider submitting the following materials as support items for their application:

1. **Written letters of recommendation**—Students may submit written letters of recommendation from the following parties: guidance counselor, high school teachers, athletic coaches and community members that personally know the applicant.
2. **Personal statement**—A brief personal statement providing additional information may be submitted. We are interested in knowing important things about the applicant that do not appear on transcripts or are not reflected by GPA or standardized test scores.

After the various data included in the application is received and evaluated, the applicant will receive a letter indicating acceptance, denial or the need for additional information. Inquiries from applicants are welcomed.

Students who have been accepted for admission must confirm their intention to enroll by making a \$300 reservation deposit. The reservation deposit is applied to the entering semester charges for the upcoming year.

Fall Semester: The deposit is refundable if requested in writing before May 1. Students admitted after May 1 must make a deposit within 10 days after admission. Enrolling students must present a written health report on a form supplied by the College. The form must be returned to the College before official registration can begin.

Spring Semester: The deposit is refundable if requested in writing before January 15. Students admitted after January 15 must make a deposit within 10 days after admission. Enrolling students must present a written health report on a form supplied by the College. The form must be returned to the College before official registration can begin.

Transfer Student Admission

Students who have graduated from high school or have earned their GED and have attended a regionally accredited two- or four-year college are encouraged to apply for transfer student admission to Bridgewater College. Application forms are available at bridgewater.edu/admissions. Application deadlines are **May 1** for fall semester and **January 1**

for spring semester.

Transfer students applying for admission must have a cumulative grade point average of 2.2 or above and be in good standing at the college they are attending. A maximum of 68 credit hours will be accepted from a two-year college.

Credentials collected for admission include:

1. Official final high school transcript with graduation date
2. Standardized test scores (SAT/ACT) for student with less than 26 transferable credit hours
3. Dean's Reference Form (available on BC's website) from each institution of higher learning attended
4. Official transcript from each institution of higher learning attended

Transcripts will be evaluated by the registrar on a course-by-course basis. Only work comparable to that offered at Bridgewater College in level, nature and discipline will be accepted for degree credit. Credit will be awarded only for those courses in which a grade of C or above has been earned. Bridgewater offers competitive scholarships and grants for transfer students. Please contact the financial aid office for more information.

Bridgewater College currently has Guaranteed Admission Agreements with three Virginia Community College System (VCCS) institutions—Blue Ridge Community College in Weyers Cave, Germanna Community College in Locust Grove and Fredericksburg, and Dabney S. Lancaster Community College in Clifton Forge. Bridgewater also has an agreement with the (non-VCCS) Richard Bland College of The College of William & Mary in Petersburg.

Students who have been accepted for admission must confirm their intention to enroll by making a \$300 reservation deposit. The reservation deposit is applied to the entering semester charges for the upcoming year.

Fall Semester: The deposit is refundable if requested in writing before May 1. Students admitted after May 1 must make a deposit within 10 days after admission. Enrolling students must present a written health report on a form supplied by the College. The form must be returned to the College before official registration can begin.

Spring Semester: The deposit is refundable if requested in writing before January 15. Students admitted after January 15 must make a deposit within 10 days after admission. Enrolling students must present a written health report on a form supplied by the College. The form must be returned to the College before official registration can begin.

International Student Admission

Bridgewater warmly welcomes students from around the world to experience the opportunities and personal attention offered in this small, undergraduate setting. To make the transition to the U.S. seamless, international students benefit from airport pick-up services; an orientation for international students; and assistance with immigration, academics, internships and job and graduate school placements.

All non-U.S. citizens and nonpermanent residents of the U.S. go through the same process as all entering freshman and transfer students.

In addition, international applicants **must provide** evidence of English proficiency and documentation of sufficient financial resources. A deposit of \$300 is required of all international

students accepted for admission. The deposit must be paid before the I-20 is issued.

International students may submit their applications throughout the year, but the deadline is **March 15** for fall admission (late August start) and **January 1** for spring admission (late January start) of the same year. Late applications may be considered if space remains.

International students should submit the following documents when applying to Bridgewater College:

1. A completed application form—online (no charge) or paper (\$30)
2. Official records from secondary school and post-secondary school, with English translations
3. Certified bank statement verifying financial support for one academic year
4. English language proficiency results with the following minimum scores: TOEFL: 550 (paper), 213 (computer), 79 (Internet-based); IELTS: 6.5; PTE: 60
5. Personal Statement (250-word minimum) written in English
6. Photocopy of front page (photo page) of passport
7. For transfer students: a Dean's Reference Form from each U.S. college or university
8. For transfer students: a World Education Services evaluation for all previous college or university coursework

Applicants who do not meet the minimum English language proficiency requirements may be conditionally admitted to Bridgewater College, provided they enroll in and successfully complete an approved English language training program.

All F-1 international students will be required to prove they have sufficient health insurance coverage from a U.S.-based provider before coming to Bridgewater.

NEW STUDENT ORIENTATION

Spring Orientation

Students who have been accepted to Bridgewater College and have paid their \$300 deposit are eligible to attend a spring orientation session. Designed as a two-day event, spring orientation helps incoming students and their parents become familiar with the Bridgewater College community and emphasizes how to transition into college life. Led by faculty, staff and trained student orientation leaders, spring orientation provides information about academic programs, student services, housing options, student organizations, intercollegiate athletics, financial aid and campus events. Students also take placement tests in math and foreign language to help determine their course enrollment for the fall semester. Faculty advisors assist students with pre-registration during spring orientation.

A summer orientation is offered for students who are unable to attend a spring orientation session. This is a one-day session with a limited program of activities.

Welcome Week

Welcome Week takes place when new students arrive on campus in the fall and is the final piece of the orientation process. The week's events are designed to assist students in the transition to becoming successful Bridgewater College students. During Welcome Week, students complete the registration process; meet faculty, staff and upperclassmen; and participate in many interactive activities specifically designed to aid in the transition to Bridgewater College.

READMISSION

A student who is absent from the College for a semester or longer, or one who has withdrawn from the College for any reason, voluntarily or involuntarily, must apply for readmission through the admissions office. If the applicant for readmission withdrew for health reasons, a letter of recommendation and evaluation will be required from a health professional. If the applicant was suspended for academic reasons, evidence of satisfactory college-level work at another institution must be submitted. If the applicant was suspended for violating academic or student conduct policies, full compliance with the terms of suspension must be demonstrated.

ADVANCED PLACEMENT

Credit and advanced placement may be awarded to students on the basis of results on the Advanced Placement Tests of the College Entrance Examination Board. A minimum score of 3 is required for credit consideration. Students may be asked to provide textbook and course materials for the respective departments to evaluate when making advanced placement decisions.

Advanced Placement Tests are available in a variety of academic disciplines offered at Bridgewater. Students interested in taking one or more of these tests for the purpose of obtaining credit and advanced placement at Bridgewater should confer with the secondary school principal during their junior year or earlier and with the College upon application for admission.

The College considers the results of the College Level Examination Program (CLEP) as a means of determining advanced placement for students who have not followed the traditional pattern of preparation.

International Baccalaureate Program Credits

Credit and advanced placement may be awarded to students on the basis of results on the International Baccalaureate (transcript of grades), but is subject in every instance to the recommendation of the academic department concerned and must be approved by the vice president and dean for academic affairs, in accordance with policies of the Council on Education. The student's records and transcript of grades will be evaluated with scores of 5, 6 or 7 on the Higher Level Examinations. The International Baccalaureate Program is available in selected high schools in the United States and numerous foreign countries.

Cambridge International Program Credits

Credit and advanced placement may be awarded to students on the basis of results on the Cambridge International exams, but is subject in every instance to the recommendation of the academic department concerned and must be approved by the vice president and dean for academic affairs, in accordance with policies of the Council of Education. The student's records and transcript of grades will be evaluated with grades of A, B or C on the Cambridge International AS and A Level subject examinations.

SUMMER SESSIONS

Bridgewater operates a three-week and a six-week summer session to enable students to accelerate completion of their degree requirements in three years instead of four, to enable students who have fallen behind in their work to catch up in their programs, and to enable area teachers who need credits in academic and professional subjects for the renewal of their certificates to secure them.

An integral part of the total college program, the summer session offers standard courses, most of which are taught in the regular session. A student may enroll for a maximum of 4 credit hours in the three-week session and 7 credit hours in the six-week session. To enroll for more than the maximum, a student must receive written permission from the vice president and dean for academic affairs.

REQUEST TO TRANSFER CREDITS

A student wishing to transfer credits to Bridgewater College must complete the *Permission to Take Courses for Transfer Credit Form*, and submit it to the registrar for approval. Courses to be considered for transfer must be completed at a regionally accredited college or university. Transfer credit will be awarded for approved courses received on an official transcript in which the student earns a grade of C or higher. Transferred courses are recorded as credits earned and will not change a student's grade point average at Bridgewater College.

ACADEMICS

THE LIBERAL ARTS

A liberal arts education is more than the broad skills and knowledge acquired from studying such areas as literature, history, philosophy and the arts. On a deeper level, a liberal arts education refers to the development of critical thinking, the ability (and desire) to question, examine and understand issues and ideas with increasing clarity and depth.

At Bridgewater College, excellence in education is a commitment that unites the entire campus. It implies breadth, depth, distinction and discovery. We build breadth through the liberal arts foundation; depth through the student's academic major; and distinction through elective courses that are tailored to individual interests. The last of these, discovery, cannot be packaged, for it describes the spirit in which students and faculty come together.

That intangible mix of attitude and information can reshape the way students see themselves and the world around them. What happens in the classroom is basic to this transformative process, and at Bridgewater, the liberal arts curriculum is the beginning point.

At Bridgewater College, we emphasize these things not only for the love of learning, but to prepare students to positively shape the organizations and communities in which they live and work.

As part of their transformative liberal arts education at Bridgewater College, students will:

- demonstrate the skills of academic citizenship, including open listening, responsible perspective taking, public reasoning, and self-authorship;
- examine fundamental ethical choices;
- understand the impact of one's actions on the community and exercise civic responsibility as local, national and global citizens;
- learn the knowledge and skills essential for collegiate success in a first-year experience;
- develop and demonstrate an identity as learners and integrate their learning across disciplines and in residential, co-curricular, service, community and social experiences;

- develop a personalized educational program and analyze and document their experiences;
- be actively engaged in their learning through information technologies and learn information literacy and how to apply technology effectively in their respective disciplines and careers;
- connect their academic work to the wider world through community-based learning experiences such as internships, practica, fieldwork, student teaching, study abroad and multicultural programming experiences;
- read and write the English language with clarity, effectiveness and discernment;
- demonstrate effective oral communication skills;
- demonstrate competence in critical reading and critical reasoning;
- understand the diverse cultures that comprise the global community in both past and present and be able to excel in multicultural and international situations;
- learn and practice activities that promote healthy lives; and
- develop in-depth knowledge in a particular field.

THE PERSONAL DEVELOPMENT PORTFOLIO PROGRAM

Through the Personal Development Portfolio (PDP) program, Bridgewater College focuses on developing students in a holistic way: helping them to develop the skills and perspectives to be passionate lifelong learners who can integrate their varied academic experiences in a meaningful way; helping them become more aware, involved and effective citizens of the communities— campus, local, national, global—to which they belong; helping them learn to examine and make fundamental ethical choices in their activities and to formulate the values from which those choices are made; and helping them understand the importance of emotional and physical wellbeing and possess the skills to pursue wellness during their college years and throughout the rest of their lives.

PDP Requirements

First-Year: Students enroll in PDP-150 (Critical Inquiry in the Liberal Arts) or PDP-350 (Integrating the Liberal Arts, for transfer students), a three-credit academic course that provides an introduction to concepts and skills important for a liberal arts education. Students will begin to archive and document their experiences, beginning the portfolio-building process.

Sophomore and Junior Years: Working with their primary academic advisor, students will continue their archiving and documenting activities, reflecting on the many ways their experiences and achievements are shaping them as they develop over the college years.

Senior year: After attending a series of convocations and workshops, students submit a senior reflective e-portfolio. Faculty members then evaluate the e-portfolio and assign a letter grade. **A passing grade on the senior e-portfolio is a requirement for graduation.**

The Complete Senior E-Portfolio

1. A **senior reflective essay** integrating and discussing the student's development, personal as well as academic, over the four years, extensively covering all the student's experiences, both curricular and co-curricular.
2. The **résumé**, meeting specific criteria and accompanied by a cover letter or graduate

school application essay.

3. **Discussion of experiential learning or community service experiences**, both within and outside the classroom, and the impact those experiences have on the student's understanding of citizenship and community responsibility.
4. **Academic artifacts**, such as academic projects, essays, creative work, evaluations, use of data analysis software, videos, use of presentation software, letters of recommendation and other materials that provide documentation of learning experiences discussed within the senior reflective essay.

Central Themes of PDP

1. **Preparation**—PDP-150 (Critical Inquiry in the Liberal Arts) or PDP-350 (Integrating the Liberal Arts, for transfers) prepares the entering first-year student for the non-academic as well as the academic aspects of college life. This course is the basic foundational experience of the liberal arts curriculum and is a required course for all first-year students.
2. **Critical Analysis/Critical Reflection**—The process of critical analysis or critical reflection can be applied to anything you care to examine and understand...a text read for a class, a difficult personal experience, a piece of music or art, a laboratory experiment, a community service experience, or even a simple encounter or casual conversation. As the college experience unfolds, critical analysis or critical reflection is practiced until it becomes second nature and the habit of examination and analysis becomes not only the basis of a liberal arts education, but, more importantly, it becomes essential to who you are as a person.
3. **Integration**—Throughout the four years, the program is the setting by which the student integrates his or her discrete and varied college experiences into a cohesive and coherent whole. In the senior reflective essay, the student considers the many linkages among the various elements of his or her curriculum and co-curriculum, weaving a single narrative in order to give shape and substance to the overall experience.

GENERAL EDUCATION REQUIREMENTS

The general education program at Bridgewater College consists of four distinct areas of study: master core skills; engagement in a global society; engagement of ideas across the disciplines; and the integration of skills and ideas. The program consists of between 33–54 semester credit hours, depending on placement scores, courses taken, and potential overlap between categories.

Master Core Skills

(Five courses, 7–13 credit hours)

- PDP-150 Critical Inquiry in the Liberal Arts *-or-* PDP-350 Integrating the Liberal Arts
- ENG-110 Effective Writing *-or-* Placement
- COMM-100 Oral Communication
- MATH-110 College Algebra *-or-* MATH-115 Mathematical Theory and Computation II *-or-* MATH-118 Quantitative Reasoning *-or-* Placement
- ES Activity

Engagement in a Global Society

(Four courses, 6–12 credit hours)

World Culture Through Language (two courses, 0–6 credit hours)

Demonstrate proficiency at 202 level or take one course in world languages at the 102 level or above.

World Cultures and Global Dynamics (two courses, 6 credit hours)

One course in World Cultures (3 credit hours)

Requires a prerequisite of PDP-150 or PDP-350

COMM-333X	European Media and Culture
ENG-220	American Folklife
ENG-240	Russian Literature and Culture
ENG-243	Native American Literature and Culture
ES-357	Global Healthcare and Sport
HIST-306	Multi-layered Histories
HIST-321	Europe Since 1789
HIST-325	Modern Britain Since 1688
HIST-340	American Indian History
HIST-350	Afghanistan, Central Asia, and the Great Powers
HIST-356	East Asia
HIST-360	Modern Africa
HIST-380	Topics in European History
HIST-385	Topics in French History
HIST-390	Topics in Non-Western History
PHIL-328	Germanic Cultures
PHIL-329	Classical Cultures: Greece and Italy
PSCI-310	Latin American Politics
REL-250	Reel-World Cultures
REL-315	The Lands of the Bible
REL-340	Religions of the Near East
REL-350	Religions of the Far East
SOC-363	Cultures of Japan

One course in Global Dynamics (3 credit hours)

Requires a prerequisite of PDP-150 or PDP-350

BIO-215	Biology of Human Diversity
COMM-334	Intercultural Communication
ECON-310	U.S. Economic and Business History
ECON-440	International Economics
ENG-221	The Images of “Folk” in Literature
ENG-224W	Introduction to American Studies
HIST-270	Second World War in Global Perspective
HIST-305	India Past and Present
HIST-330	Histories of Violence
HIST-335	Women’s Histories
HIST-345	Crusades and Terrorism
PSCI-230	Introduction to Global Politics

PSCI-240	Introduction to Comparative Politics
PSCI-335W	Peace, War, and World Politics
PSCI-336	United Nations
PSCI-338	Politics of Social Change
PSCI-375	U.S. and the World
PSCI/SOC-205	Global Identities
SOC-334	Gender and Sexuality Studies
SOC-335	Immigrants in the Shenandoah Valley

Engagement of Ideas Across the Disciplines

(Six courses, 19 credit hours)

One course in Fine Arts and Music (3 credit hours)

Requires a prerequisite or corequisite of a master core skills course

ART-115	Introduction to Sculpture
ART-130	Introduction to Drawing and Pictorial Composition
ART-200	Survey of Art History: Prehistory to 1400
ART-201	Survey of Art History: 1400 to the Present
ART-300	Modern and Postmodern Art
ART-310	Hand Built Ceramics
ART-311	Wheel Thrown Ceramics I
ART-323	Graphic Design
ART-335	Painting and Color Composition
ART-344	Photography—Digital Capture/Digital Darkroom
ART-347	Videography
MUS-110	Music Fundamentals
MUS-220	Introduction to Western Music
MUS-232	American Music
MUS-233	Jazz in America
MUS-237	Introduction to Ethnomusicology
MUS-315	History of Music to 1750
MUS-316	History of Music since 1750
MUS-447	Topics for Ensembles in Context (plus two performing ensemble courses)
THEA-200	Theatre Production
THEA-250	World Theatre History I
THEA-255	World Theatre History II
THEA-315	Theatre in London
THEA-330	Directing
THEA-355	Environmental Theatre

One course in Literature (3 credit hours)

Requires a prerequisite or corequisite of a master core skills course

Any course in English (ENG) numbered 325–400W

One course in History (3 credit hours)

Requires a prerequisite or corequisite of a master core skills course

HIST-105	World History to 1500
HIST-110	World History since 1500
HIST-115	20th Century World History

HIST-120	Producing the World: an Economic History of the Modern World
HIST-125	The Atlantic World, 1450–1800
HIST-130	African American History
HIST-135	History of the Islamic World
HIST-140E	Ethical Dilemmas in World History

One course in Philosophy or Religion (3 credit hours)

Requires a prerequisite or corequisite of a master core skills course

ECON-420	Development of Economic Thought
PHIL-225E	Contemporary Moral and Political Problems
PHIL-228EW	Philosophy of Popular Culture
PHIL-235E	Bioethics
PHIL-310	Logic
PHIL-320E	Professional Ethics
PHIL-322EW	Ethics and Identity
PHIL-331EW	The Classical Mind
PHIL-332W	The Evolution of the Modern Mind
PHIL-333W	Contemporary Philosophy
PHIL-335	Philosophy of Religion
PHIL-337W	Philosophy of Science
PHIL-340EW	Environmental Ethics
PHIL-420W	Postmodernism
PSCI-220	Introduction to Political Philosophy
PSCI-401E	Contemporary Political Thought
REL-210X	The Study of Religious Traditions
REL-220	New Testament
REL/PHIL-300	Topics in Philosophy and Religion
REL-310	Jesus in History and Culture
REL/HIST-317	History of the Christian Church
REL-325X	Uses and Abuses of Scripture
REL-326	Readings in the Hebrew Scriptures
REL-331W	Christian Beliefs
REL-332W	Reformation Thought
REL-333W	Contemporary Christian Thought
REL-335E	Christian Perspectives on Violence and Peace
REL-420EW	Christian Social Ethics

One course in the Social Sciences (3 credit hours)

Requires a prerequisite or corequisite of a master core skills course

COMM-375	Media Effects
ECON-200	Principles of Macroeconomics
ECON-210	Principles of Microeconomics
PSCI-210	Politics and Government in the U.S.
PSY-101	Introduction to Psychology
SOC-101	Sociological Imagination

One course in the Natural & Physical Sciences (4 credit hours)

Requires a prerequisite or corequisite of MATH-110, MATH-115, or MATH-118

BIOL-100	Nature of the Biological World
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BIOL-101	Environmental Biology
BIOL-110	Principles of Biology I
BIOL-112	Human Biology
CHEM-102	The Earth and Its Physical Resources
CHEM-161	General Chemistry I
GEOL-130	Physical Geology
PHYS-110	Introduction to Astronomy
PHYS-125	Concepts of Physics
PHYS-222	General Physics II

The Integration of Skills and Ideas

(Four courses, 1–10 credit hours)

One course in Writing Intensive (0–3 credit hours)

Requires a prerequisite of PDP-150 or PDP-350 and ENG-110

BIOL/ENVR 312W	Forest and Wildlife Resource Management
COMM/ENG-255W	Multimedia Information Production
ENG-224W	Introduction to American Studies
ENG-312W	Technical and Workplace Writing
ENG-318W	Writing in Electronic Environments
ENG-332W	Arthurian Literature
ENG-333W	Irish Literature
ENG-343W	Literature of the Renaissance and the Enlightenment
ENG-345W	Literature for Children
ENG-347W	Nineteenth Century Children's Literature
ENG-366W	Studies in the Novel
ENG-368W	Studies in Poetry
ENG-385W	Modern Literature
ENG-390W	Southern Literature
ENG-400W	Seminar in a Major Literary Figure
PHIL-228EW	Philosophy of Popular Culture
PHIL-322EW	Ethics and Identity
PHIL-331EW	The Classical Mind
PHIL-332W	The Evolution of the Modern Mind
PHIL-333W	Contemporary Philosophy
PHIL-337W	Philosophy of Science
PHIL-340EW	Environmental Ethics
PHIL-420W	Postmodernism
PSCI-335W	Peace, War, and World Politics
PSCI-420W	International Law and Organizations
PSCI-440W	Global Political Economy
REL/ENG-327W	Biblical Themes in Literature
REL-331W	Christian Beliefs
REL-332W	Reformation Thought
REL-333W	Contemporary Christian Thought
REL-420EW	Christian Social Ethics
SOC/FCS-368W	Sociology of the Family

One course in Ethical Reasoning (0–3 credit hours)

Requires a prerequisite of PDP-150 or PDP-350 and ENG-110

ENVR 234E	Wildlife Ethics
HIST-140E	Ethical Dilemmas in World History
PHIL-225E	Contemporary Moral and Political Problems
PHIL-228EW	Philosophy of Popular Culture
PHIL-235E	Bioethics
PHIL-320E	Professional Ethics
PHIL-322EW	Ethics and Identity
PHIL-331EW	The Classical Mind
PHIL-340EW	Environmental Ethics
PSCI-290E	Aesthetics, Philosophy, and Politics
PSCI-401E	Contemporary Political Thought
REL-335E	Christian Perspectives on Violence and Peace
REL-420EW	Christian Social Ethics
SOC-255EX	Social Welfare

One course in Experiential Learning (0–3 credit hours)

Requires a prerequisite or corequisite of a master core skills course

BUS-305X	Entrepreneurial Revolution in the 21st Century
BUS-365X	Cross-Cultural Issues in Business
BUS-422X	Entrepreneurship
COMM-331X	The Television and Film Studio System
COMM-333X	European Media and Culture
COMM-349X	Nonprofit Communication
PSY-481X	Practicum in Applied Psychology
REL-210X	The Study of Religious Traditions
REL-325X	Uses and Abuses of Scripture
SOC-255EX	Introduction to Social Welfare
SOC-431X	Public Culture
SOC-481X	Field Experience in Social Welfare

PDP-450 Integrated Senior E-Portfolio (1 credit hour)

DEGREE REQUIREMENTS

Bachelor of Arts or Bachelor of Science

1. Complete a minimum of 123 credit hours with a minimum of 48 credit hours chosen from junior- and senior-level courses.
2. Complete general education requirements for the respective degree.
3. Complete course requirements for the major.
4. Earn a minimum cumulative GPA of 2.0 and a minimum GPA of 2.0 in courses required for the major.
5. Complete a minimum of 33 credit hours with 30 of the last 33 credit hours of academic work in residence at Bridgewater College or at a College-approved study abroad program. In addition, complete at least 9 credit hours of the major at Bridgewater College.

It is the responsibility of the student to enroll in the appropriate courses to meet degree requirements.

Requirements in the Major Field

A departmental major consists of not less than 32 credit hours and not more than 54 credit hours, with no more than 48 credit hours within a specific academic discipline. Prerequisite and supporting courses are included in this total, with the exception of prerequisite courses to entry-level courses in the major. At least 9 credit hours of the major must be completed at Bridgewater. An exception to the 54 credit hour limit is made for the athletic training major due to the requirements of an outside accrediting agency.

During the sophomore year, a program of courses in the major department and related courses comprising the Plan of Major is developed for each student by the student and his or her academic advisor for the major. A copy of this plan must be approved by the registrar and filed in the office of the registrar. Any changes in the proposed plan of the major must likewise have the approval of both the student's advisor for the major and the registrar and be recorded in the office of the registrar.

A limited number of courses may count for both major requirements and requirements in other programs (whether majors, minors or concentrations). In general, and unless specified otherwise by the department sponsoring the program, courses that are required for particular programs will count for those programs, while courses chosen from distributed lists of electives will count in one program only and will be so designated on the Plan of Major, Plan of Minor or Plan of Concentration. Because of the relative size of academic concentrations, there will be no special allowance for overlap with other programs (beyond courses required for multiple programs).

Each student must earn at least a 2.0 grade point average in courses constituting the major. Suitable majors from which the student may choose are listed on pages 6–7.

Each student will designate a primary major in order to determine the degree received and establish a single primary academic advisor. A student who wishes to achieve a major in two fields must recognize the possibility that more than four academic years may be required to complete such a program. A student who pursues two major fields must complete the requirements for both programs. No more than two major fields will be denoted on a student's permanent academic record.

Requirements for an Emphasis within a Major Field

An emphasis within a major field is a curricular design that offers a student the option to consolidate electives within a major or from uncommitted electives that are a normal part of the undergraduate program, to gain additional depth in the chosen major field of study.

An emphasis consists of at least 18 but no more than 24 credit hours. In order to be eligible for admission to an emphasis program, a student must have declared the major upon which the emphasis is built. Other requirements, such as enrollment in a specific degree program, may also apply. All courses will be taken from a list of courses approved for the program by the department sponsoring the emphasis and the academic advisor for the major. A limited number of courses, specified and designated by the department, may count for both the major requirements and the emphasis requirements and will be denoted on the Plan of Major.

In order to obtain recognition for the emphasis, the student must achieve a grade point average of 2.0 or above for the courses comprising the program.

The satisfactory completion of an emphasis within a major field will be noted on the student's official grade transcript. No more than two emphases will be denoted on a student's permanent academic record.

Requirements for a Minor

A departmental minor consists of not less than 18 credit hours and not more than 32 credit hours, with no more than 27 credit hours within a specific academic discipline. Prerequisite and supporting courses are included in this total, with the exception of prerequisite courses to entry-level courses in the minor. At least 6 credit hours of the minor must be completed at Bridgewater.

A program of courses comprising the Plan of Minor is developed by the student, his or her academic advisor for the major, and his or her academic advisor for the minor. A copy of this program must be approved by the registrar and filed in the office of the registrar. Any changes in the proposed Plan of Minor must likewise have the approval of the student's academic advisor for the major, academic advisor for the minor, and the registrar, and must be recorded in the office of the registrar.

A student may not complete a minor in the same discipline as his or her major, though minors in related disciplines or topic areas within disciplines (even when housed in the same academic department) are permissible. A limited number of courses may count for both minor requirements and requirements in other programs (whether majors, minors or concentrations). In general, and unless specified otherwise by the department sponsoring the program, courses that are required for particular programs will count for those programs, while courses chosen from distributed lists of electives will count in one program only and will be so designated on the Plan of Major, Plan of Minor or Plan of Concentration. Because of the relative size of academic concentrations, there will be no special allowance for overlap with other programs (beyond courses required for multiple programs).

To complete the requirements of the minor, a student must earn at least a 2.0 grade point average in the credits comprising the minor. The satisfactory completion of a minor field of study will be denoted on the student's official grade transcript. No more than two minors will be denoted on a student's permanent academic record.

Students may elect any of the minors listed on pages 6–7.

Requirements for an Academic Concentration

A concentration is a curricular design that offers a student the opportunity to gain additional depth within a specific content area, whether that content area is within or outside the student's major (or minor) program of study.

A concentration consists of at least 9 but no more than 18 credit hours. All courses will be taken from a list of courses approved for the program by the department (or departments) sponsoring the concentration. A Plan of Concentration is developed by the student, his or her academic advisor for the major, and his or her academic advisor for the concentration. A copy of this plan must be approved by the registrar and filed in the office of the registrar. Any changes in the proposed Plan of Concentration must likewise have the approval of the student's academic advisor for the major, academic advisor for the concentration, and the registrar, and must be recorded in the office of the registrar.

A student may not complete a concentration in the same discipline as his or her major or minor

(including a specific track within a particular major or minor), though concentrations in related disciplines or topic areas within disciplines (even when housed in the same academic department) are permissible. A limited number of courses, specified and designated by the departments involved, may count for multiple programs. In general, and unless specified otherwise, required courses that are specified for each program will count for each program, while courses chosen from distributed lists of electives will count in one program only and must be so designated on the Plan of Major, the Plan of Minor and/or the Plan of Concentration. Because of the relative size of academic concentrations, there will be no special allowance for overlap with other programs (beyond courses required for multiple programs).

In order to obtain recognition for the concentration, the student must achieve a grade point average of 2.0 or above for the courses comprising the concentration. The satisfactory completion of a concentration will be noted on the student's official grade transcript. No more than two concentrations will be denoted on a student's permanent academic record.

Students may elect any of the concentrations listed on page 7.

Elective Courses

Elective courses should be selected with care to fulfill needs to enter graduate school, for certification to teach or for other special purposes. Students interested in teaching in the public schools should read the requirements for certification stated on page 108 and confer with the chair of the department of education no later than the end of the freshman year.

Academic Advising

Students are typically assigned a faculty advisor within the department of their intended major. The primary responsibilities of the academic advisor are to develop a mentoring relationship with their students, to help students with course planning appropriate to their interests and needs, to assist students in connecting their overall educational plan to career and life goals, to encourage students to take advantage of campus opportunities and resources, and to nurture students' self-reliance and independent decision making.

In addition to the individual academic advisor, the College also provides an Academic Advising Center which provides a variety of resources and programs for student development, especially for those who have not yet decided on a major. There are also many other campus advising and counseling resources on campus, including the Academic Support Center, Health Services, the Counseling Center, the Center for Cultural Engagement and the Career Services Center.

DUAL DEGREE PROGRAMS

Dual degree programs allow students to complete three years of courses at Bridgewater and two or more years at another university. Upon completion of the dual degree, students are granted a bachelor's degree from Bridgewater and another degree from the second institution as it is specified in each separate agreement. Bridgewater offers the following dual degree opportunities:

- Physical Therapy with Shenandoah University
- Engineering with The George Washington University and Virginia Tech
- Nursing with Vanderbilt University

PRE-PROFESSIONAL PROGRAMS

Dentistry (Biology Department)

Pre-dental students are advised to pursue acceptance to dental schools in their state of residence and to review the admission requirements at their preferred school as early as possible. Students wishing to become dentists should consult with the pre-medical advisor in the biology department as early as possible in their college careers.

Engineering (Physics Department)

Bridgewater College and the schools of engineering at Virginia Tech and at The George Washington University provide programs leading to a dual degree in engineering and physics. Students pursue a joint program of study beginning at Bridgewater College and then transfer to either The George Washington University or Virginia Tech. This program allows the student at Bridgewater College to begin the college education at a small, high-quality liberal arts institution and then complete an engineering program at an internationally recognized engineering college, ultimately earning degrees from both institutions.

Law (History and Political Science Department)

Students from any major can attend law school. However, history, political science, English, and philosophy and religion majors (programs of study that emphasize critical thinking, verbal skills and writing) are the most common majors for law school applicants. Students interested in law school are encouraged to combine a pre-law concentration with their chosen major or choose the pre-law track in the political science major. Pre-law students work with the pre-law advisor in the history and political science department to pick classes relevant to their specific legal interests, prepare for the LSAT, use the Law School Admission Council's Credential Assembly Service, get letters of recommendation, write a personal statement and pick schools to which they might apply.

Medicine (Biology Department)

Medical school preparation should begin as early as possible in the undergraduate degree program. Students meet with the pre-medical advisor in the biology department to create a plan for achieving admission to the school of their choice. Numerous resources and opportunities are available through joining Bridgewater's Pre-Med Society. In addition to achieving an exceptional academic record, pre-medical students have a unique opportunity to obtain medical experience through completing their required service-learning hours at local hospitals and free clinics or through obtaining EMT certification and volunteering at a rescue squad.

Ministry (Philosophy and Religion Department)

The bachelor's degree in philosophy and religion will prepare students for admission to a theological seminary to pursue a master of arts or a master of divinity degree. Such a master's degree is prerequisite for ordination to the ministry in most denominations.

Occupational Therapy (Health and Human Sciences Department)

Occupational therapy (OT) students should pursue an undergraduate major of health and exercise science and talk to their advisor about courses that would best prepare them for master's level or doctoral level OT programs.

Pharmacy (Chemistry Department)

Students interested in attending pharmacy school should meet with the chair of the chemistry department. The chemistry department advises students with regard to courses that meet the requirements of most pharmacy schools and will work with each student to create a plan for their school of choice.

Physical Therapy (Health and Human Sciences Department)

Students interested in physical therapy should pursue an undergraduate major of health and exercise science and talk to their advisor about courses that meet the requirements of most physical therapy schools. Bridgewater College has entered into a dual degree program agreement with Shenandoah University in which students may enter Shenandoah after three years at Bridgewater to pursue a doctor of physical therapy degree.

Physician Assistant (Health and Human Sciences Department)

Students interested in pursuing graduate school to become a physician assistant should consult with faculty in the biology and health and human sciences department. Additionally, an articulation agreement exists with Mary Baldwin College allowing qualified students from Bridgewater College to be admitted into their physician assistant program. Contact the chair of the health and human sciences department for more information.

Veterinary Science (Biology Department)

Admission into veterinary school is highly competitive, and prospective students should consult with the pre-medical advisor in the biology department. Students may benefit from an accelerated degree program offered by Virginia Tech.

A student must complete all biology major and general education requirements to apply in the junior year to Virginia Tech. If accepted, the student leaves Bridgewater after the third year for the first year of veterinary school at Virginia Tech. After satisfactory completion of the first year of vet school, the courses transfer back to Bridgewater, and the student can participate in May graduation and receive a B.S. in biology from Bridgewater.

BACHELOR OF GENERAL STUDIES PROGRAM

The bachelor of general studies degree program is an individualized liberal arts degree program for the mature adult who seeks an alternate method of obtaining a bachelor's degree. The program is tailored to the student's personal and vocational needs and takes into consideration the individual's life experiences prior to matriculation.

Admission

A student 30 years of age or older may apply to the vice president and dean for academic affairs for admission to the bachelor of general studies degree program. The applicant must submit the following:

- a. High school transcript showing graduation from a secondary school or the equivalent
- b. Official transcripts of all postsecondary studies
- c. Three letters of recommendation
- d. A biographical essay summarizing the student's background and outlining the student's goals and reasons for pursuing the bachelor of general studies degree program

The vice president and dean for academic affairs assigns the applicant to a faculty sponsor who consults with the applicant to develop a set of degree requirements that are submitted to the Council on Education. Approval of the degree program by the Council on Education constitutes admission to the bachelor of general studies degree program.

Assessment of Experiential Learning

In the general studies program, credits may be granted for satisfactory performance on the College Level Examination Program (CLEP) of the Educational Testing Service.

In recognition that competencies learned outside the formal college environment may be included appropriately in a student's degree program, a student in the general studies program may submit to the vice president and dean for academic affairs an application with documentation that is evaluated independently by two faculty members and submitted to the Council on Education and the dean for final action. A maximum of 30 credit hours may be earned in this way.

Degree Requirements

A bachelor's degree in general studies is awarded upon completion of the following:

- a. A minimum total of 123 credit hours with a minimum 2.0 cumulative grade point average
- b. Demonstrated proficiency in general education
- c. A minimum of 32 credit hours with a 2.0 grade point average in a major field
- d. Completion of an approved senior independent study project with a grade of C or better

Fees

A student's individual program of studies determines which of the following fees will be paid:

Coursework at Bridgewater College: At the current part-time rate listed on the College website

Prior learning credit: \$30 per credit hour

LEARNING OPPORTUNITIES

Study Abroad

Part of a Bridgewater College student's education is preparation for global citizenship and interaction. We live in a truly interconnected world, in which the development of global awareness and responsibility are vital for the future. The Center for International Education works to provide numerous international study experiences for BC students who wish to learn through immersion in another culture, whether for a few weeks, a semester or even longer.

Students have the option to study abroad for a semester through a College-approved study abroad program at locations in Europe, Latin America, Africa, Asia and Southeast Asia.

To be eligible to participate in study abroad, unless the director of international education grants a written exception, a student must:

- have completed at least 30 credit hours of academic work at Bridgewater College;
- have status as a junior;
- intend to return to Bridgewater College to complete college work after the study

- abroad experience; and
- have at least a 3.0 cumulative grade point average.

Financial assistance from federal and state aid programs may be available for students participating in study abroad. The College establishes an annual limit on the availability of institutional funds to support study abroad programs and the amount of institutional assistance available will vary by program.

Additional institutional fees will apply. Although study abroad is generally a junior-year program, students may not always be able to receive institutional assistance from the College in the semester of the year of their choice. The Free Application for Federal Student Aid (FAFSA) determines the eligibility for need-based federal, state and institutional aid programs. Students enrolled under tuition exchange must pay the costs associated with study abroad and Interterm travel programs.

The application date to the Center for International Education is February 1 for fall and spring semesters.

The Center for International Education **must give** written approval.

While students are permitted to study abroad for a full academic year through a College-approved study abroad program, financial aid, if provided, is currently limited to one semester.

Study abroad programs provide an opportunity for first-hand knowledge of a foreign culture and an opportunity to become an active participant in the challenging task of creating a climate of mutual respect and understanding among the nations of the world. Language requirements and additional grade point average requirements may apply to certain programs.

Interterm Travel

Additional study abroad opportunities are available by participating in one or more Interterm travel courses. Bridgewater students have the opportunity to choose classes ranging from the study of marine ecology in the waters of the Atlantic to an exploration of the vast array of cultures in India.

Interterm travel courses offer a study abroad experience in a few short weeks, giving the student first-hand knowledge of another culture and inviting you to discover more about the world around you. Contact the registrar's office for a full course listing.

Dr. John S. Flory Fellowship of Scholars

The Flory Fellowship of Scholars is for students who:

- have outstanding academic records and find excitement and stimulation in the learning process
- want to develop the skills for independent inquiry and research necessary for excelling in graduate and professional schools
- crave the opportunity to be creative and to develop the capacity to meet new challenges
- want to push the boundaries of knowledge and explore uncharted intellectual territory
- want to be part of a social and academic community of motivated learners

The Flory Fellowship of Scholars is an honors program consisting of stimulating and interesting opportunities both inside and outside the classroom. Students take a minimum of six hon-

ors-designated courses plus a capstone seminar (IDS-470: Senior Capstone Seminar). First-year students begin the program with an honors section of PDP-150 (Critical Inquiry in the Liberal Arts), the College's freshman seminar.

A student may become a member of the Flory Fellows in the following ways:

- Bridgewater applicants who have a minimum 3.8 high school grade point average (GPA) with strong SAT scores and transfer students with a high GPA in college courses receive an invitation from the vice president and dean for academic affairs.
- Enrolled students with a GPA of 3.4 or higher may be nominated by a faculty member.

Flory Fellows Course Options

A variety of options are offered for completing the six-course minimum requirement. The most common path is taking an honors section of an existing course offered for general education, major or elective credit. Honors courses are different in that they provide an even greater opportunity for students to develop their capacities for creativity, independent learning and leadership.

In addition to honors-designated courses, another possibility in completing course requirements is the distinctive course linkage option, available only to students in the honors program. A one-credit linkage consists of a project that integrates the concepts and themes of two courses from different disciplines that the student has taken or is taking. This part of the program allows students to engage in genuinely integrative learning and is one of the characteristics that makes Bridgewater's program exciting and unique.

Convocations

Convocations at Bridgewater College include a wide variety of programs addressing important social issues, including films, speakers, presentations, campus worship, performances in the arts and travel experiences.

Typically, at least two convocations are held each week, and each student is required to attend at least seven per semester. For the student who meets the convocation attendance requirements at the end of each semester, a grade of Satisfactory (S) is entered on the student's permanent record; for the student who does not, a grade of Unsatisfactory (U) is entered.

Students must arrive on time, scan their ID card, and stay for the entire program if they want it to count as one of their seven required convocations.

Convocations are held in five different formats:

The "Traditional" Series—Held every Tuesday morning at 9:30 a.m., these convocations typically involve speakers, presenters and participants from within the Bridgewater College community. These convocations are designed as a forum for the campus and the community to stay abreast of relevant issues.

The "Evening Event" Series—Held on weekday evenings, usually at 7:30 p.m., these convocations typically involve speakers recruited from the national or international scene and are supported by Bridgewater College's endowed lecture funds.

The "Cinema" Series—Held on occasional evenings, typically at 7 p.m., this film series shows topical, provocative domestic and international films.

The "Convo on the Road" Series—Held occasionally, with a limited number of participants, these convocations are field trips with an educational twist.

Lyceum Series and Faculty Recitals—Held several times throughout the semester, these programs, which are part of the “Evening Event” convocations, bring professional musical and cultural events to the College.

THE ALEXANDER MACK LIBRARY

The Alexander Mack Library enables every student to be successful in their learning and research beyond the classroom. Library programs focus on teaching students effective ways to find and use information ethically and legally, and to learn how information is created and organized. Librarians offer individual research assistance, general orientations and customized instruction sessions. Students have access to online subject guides and video how-to tutorials. They can ask for guidance at the research assistance desk in the library or schedule an individual appointment with a librarian. Help is also available online through the Mack Library’s website FAQ, by email or texting.

ACADEMIC SUPPORT, TUTORING AND DISABILITY SERVICES

The Academic Support Center

The Academic Support Center, located in the Bicknell House, promotes learning skills and personal development through academic counseling, academic advising, tutoring services, Academic Coach program, learning workshops, disability services and a transition program for selected new students. Tutors and academic coaches are peers, recommended by the faculty, paid and available upon request. Through individual sessions and workshops offered by the Center, students can enhance study habits and acquire new learning strategies, behaviors and attitudes.

For further information, contact the director of academic support.

Services for Students with a Disability

Services for students with a disability are coordinated by the director of the Academic Support Center. Bridgewater College is committed to providing reasonable and appropriate accommodations to enrolled students with a disability to ensure equal access to the academic program and College-administered activities. Students with a disability are responsible prior to receiving services to present required documentation to the director of academic support that meets the eligibility standards set by disability services in accordance with Section 504 and the A.D.A as amended as early as possible upon acceptance to the College. Disability services include accommodations, academic advising, extended time on tests, books in alternative formats, academic coaching, tutoring and other accommodations as appropriate.

Questions or concerns about disability services should be directed to:

Dr. Raymond W. Studwell

Director of the Academic Support Center and Section 504 Coordinator

Bicknell House; 540-828-5370; cstudwel@bridgewater.edu

The Writing Center

The Writing Center is a tutorial facility designed to improve student writing at all levels, freshman through senior, in classes across the curriculum. Trained student consultants are available afternoons and evenings to help writers plan and organize, revise and proofread, improve

their grammar or document their research. Student writers are encouraged to seek help voluntarily, or faculty members may refer students to the Writing Center. Students may also bring letters, résumés and applications to the Writing Center.

Writing tutorial facilities are located in a 30-computer lab, supplemented by a wireless lab. Writing Center facilities are used for writing classes and special workshops as well.

CAREER SERVICES AND INTERNSHIPS

The office of career services is committed to helping students achieve their education and career aspirations. Whether seeking employment or graduate school upon graduation, the office assists students as they find their professional pathways, beginning in the freshman year and continuing throughout their four-year experience and beyond.

- As freshmen, students develop a greater sense of who they are, what they want and how they can achieve success through a degree from Bridgewater College. Individual counseling and assessment tools are available to help in choosing a major that is right for them and for teaching them how to use the resources for beginning career exploration.
- As sophomores, students start to explore interests relative to possible future occupations. The office of career services has abundant resources on its website, in the career resource library and through consultation with knowledgeable career services staff.
- As juniors, students work toward building relevant experiential learning opportunities to complement classroom theory and practice. The office of career services coordinates the College's internship program and can help students find meaningful internships that will have significance for their major and career choices. Completing an internship is strongly recommended. During the junior year, it is also important to develop opportunities to build skills in leadership, community awareness, citizenship, teamwork and critical thinking. The office of career services can help identify collegiate activities that will provide avenues for demonstrated competencies in these areas. Students should start practicing résumé and cover letter development and interviewing skills, as well as researching graduate school programs, testing requirements and employers in their areas of interest.
- As seniors, students are completing what they need in order to graduate and be prepared for the next step, whether in graduate school or the workforce. The office of career services helps the student every step of the way through informative materials and programming, such as workshops on job searching, interviewing, résumé writing, internships and preparing for graduate school; events for networking, such as professional etiquette dinners, receptions and Career Exploration Day; interaction with employers through career fairs, recruiter visits and employer programs; and preparation for graduate school entrance exams. The office of career services is available to work with each student on an individual basis to ensure that he or she feels confident and ready for the next step after Bridgewater.

Career services information can be found on MyBC or at bridgewater.edu/careerservices and provide a comprehensive overview of the wealth of resources used in assisting students as they explore, prepare for and attain their career goals and dreams.

HONORS AND AWARDS

Dean's List

At the end of each semester, the vice president and dean for academic affairs announces the Dean's List, which consists of the names of all students who have a GPA of 3.40 or above while completing a minimum of 12 credit hours with no grade below C. Also, no student with a grade of Incomplete will be included on the Dean's List.

Graduation Honors

Latin Honors

Latin Honors are awarded to eligible students upon completing all graduation requirements. To be considered for Latin Honors, students must complete a minimum of 60 credits in residence at Bridgewater College and achieve the following cumulative grade point average (GPA) at Bridgewater College:

- *summa cum laude*: a minimum GPA of 3.9
- *magna cum laude*: a minimum GPA of 3.7
- *cum laude*: a minimum GPA of 3.4

The honors awarded are noted on each student's transcript and diploma. Predicted eligibility of Latin Honors is determined by April 15 prior to commencement; however, actual eligibility is based on final GPA at Bridgewater College.

Students may elect to conduct an Honors Project within a particular department (within or outside of their major). Juniors and seniors with a minimum GPA of 3.4 may make application and register for an Honors Project (see page 61).

All College-approved study abroad program credits are received on a Satisfactory/Unsatisfactory basis. However, a student may petition the vice president and dean for academic affairs to include all grades earned for honors and for cumulative GPA calculations.

The Philomathes Society

The primary purpose of the Philomathes Society, Bridgewater's scholastic honor society, is to encourage scholarly effort and to honor students, faculty members and alumni who have achieved unusual distinction in the pursuit of knowledge. A student is eligible to be nominated for membership after completing a minimum of 30 credit hours at Bridgewater College with a high GPA and satisfactory grades for convocation attendance during the year prior to nomination, provided the student has not been suspended from the College for disciplinary reasons during the year prior to induction.

Alpha Chi

The Virginia Gamma Chapter of Alpha Chi, a national collegiate honor society, is organized to promote truth and character, to stimulate and recognize scholarly effort and to encourage critical and creative thinking that enables the exploration of new areas of knowledge. Junior and senior members of the Philomathes Society who have completed at least 30 credit hours at Bridgewater, possess a cumulative GPA of 3.40 or above, rank in the top 10 percent of their class and have attended the necessary number of convocations for the two previous semesters are eligible for election to membership in this society.

THE HONOR SYSTEM AND CODE OF ETHICS

Ethics, honor and integrity are the fundamental principles at the core of the Bridgewater College experience. Our community can only flourish in an environment of trust and respect, and these notions of personal honor, integrity and faith are the fundamentals of the Bridgewater Honor System. The Code of Honor prohibits lying, cheating and stealing, and Bridgewater College's commitment to ethics, integrity and values is embodied in the Code of Ethics. Violation of these Codes demonstrates harm to the community, and an all-student Honor Council administers regulation of this Honor System. It is the goal of Bridgewater College's Honor Council to assist in the development of students' ethical and moral principles. See page 44 for more information on Bridgewater's Honor Council.

GRADES AND ACADEMIC POLICIES

Responsibility of Students

It is the responsibility of students to understand the academic standards of the College and the degree requirements of the program in which they are enrolled. Assistance in interpreting the requirements is available from advisors, the registrar and the vice president and dean for academic affairs.

Preregistration

Students are expected to preregister in advance of the published registration dates to ensure their enrollment in preferred courses. In April the office of the registrar produces course schedules for the next academic year and returning students preregister in courses for the upcoming fall, Interterm and spring semesters. New freshmen and transfer students preregister for courses during the spring and summer orientations. During the fall semester, students preregister and make changes to Interterm and the upcoming spring semester.

Registration

Students are expected to confirm their enrollment and make necessary course changes promptly in the period devoted to registration at the beginning of each semester. Failure to confirm enrollment at the proper time will result in the assessment of a late registration fee. The College accepts no responsibility for holding seats in courses or room reservations or providing living accommodations for students who fail to confirm their enrollment on the day designated for that purpose.

By permission of the student's advisor and the registrar, one may make adjustments in his or her program of studies during the drop/add period at the beginning of the semester. When a course is dropped after the drop/add period, a grade of W will be shown on the permanent record.

Class Attendance

Regular class attendance is expected of all students and attendance records are kept. Specific policies regarding the number of absences allowed in particular courses are determined by instructors; however, if a student is absent for an entire week without credible explanation or has what the instructor considers excessive absences overall (whether or not they are consecutive), he or she will be reported to the associate dean for academic affairs who will determine the circumstances of the absences and, after consulting with the instructor, make a recommendation as to whether the student should continue in the course.

If a student, through excessive absences, demonstrates minimal academic motivation, or an attitude inconsistent with reasonable expectations of a member of an academic community, the student will be subject to administrative disciplinary review, which could result in suspension or expulsion.

Absences that occur because of College activities approved by the vice president and dean for academic affairs will be reported in advance to the registrar by the instructor sponsoring the activity, and the registrar will notify instructors of the students involved. The student is responsible for all work missed when absent from class. **Students should discuss absences with their professors before the absence occurs.**

Classification of Students

A student who has earned 25 credits or less is classified a freshman; 26 to 59 credits, a sophomore; 60 to 89 credits a junior; and 90 credits or more, a senior. A student who is carrying fewer than 12 credits in a semester is classified as a part-time student.

The Basis of Credit

A credit is equivalent to one semester hour. A three-credit course meets 150 minutes per week for the semester. A two-hour or three-hour laboratory or studio per week for the semester receives one credit.

Grade Point Average and Grading System

A grade is assigned at mid-semester and at the end of the semester in each subject for which a student is officially registered. Only the grades assigned at the end of the semester are recorded on the permanent record. The following grading system is used:

Grade		Quality Points
A	Superior Achievement	4.0
A-		3.7
B+		3.3
B	Above Average Achievement	3.0
B-		2.7
C+		2.3
C	Average Achievement	2.0
C-		1.7
D+		1.3
D	Fair/Below Average Achievement	1.0
D-		0.7
F	Unsatisfactory Achievement	0.0

Grades of W, F, S and U receive no quality points.

The grade point average (GPA) is computed by dividing the quality points achieved by the number of credits attempted at Bridgewater College. All credits for which a student enrolls are counted as credits attempted except those credits for which a grade of W or S is received. A student may repeat course work in which he or she has received a grade of D+, D, D- or F. In the case of repeated work, the highest grade is used in computing the student's GPA; however, both grades will remain on the student's permanent record.

Work accepted for transfer to Bridgewater College is recorded as credits earned. Credits

attempted and quality points achieved are not transferred. Hence, a student's GPA, both cumulative and in the student's major, is only dependent upon work attempted at Bridgewater. However, grades on previous course work are calculated in the Bridgewater College GPA when determining graduation with honors.

All College-approved study abroad credits are received on a Satisfactory/Unsatisfactory basis. However, a student may petition the vice president and dean for academic affairs to include all grades earned for honors and cumulative GPA calculations.

I—Incomplete Achievement

This grade may be given when a student has been unable to complete the course or has been absent from the final examination because of illness or an emergency situation that is beyond the student's control. The time and conditions for the removal of an I must be approved by the registrar when it is assigned but no later than the sixth week of the following semester. In determining the grade point average, credits with a grade of I are not counted as credits attempted.

W—Withdrawn

This grade indicates withdrawal from a course in which the student was officially registered. In order to receive it, the withdrawal must have the approval of the instructor of the course, the student's academic advisor and the registrar before the withdrawal deadline (see the academic calendar, inside front cover). A grade of W may be assigned from the last day of the initial drop/add period until the last day of the 10th week of the full semester, the second week of Interterm and Summer Session I, and the fourth week of Summer Session II. Following these deadlines, the option of withdrawing will no longer be available. In determining the GPA, credits with a grade of W are not counted as credits attempted.

F—Unsatisfactory achievement (carries no credit)

S—Satisfactory achievement

U—Unsatisfactory achievement (carries no credit)

AUD—Audit (carries no credit)

For field internships and student teaching, grades of S or U are assigned. Courses carrying grades of S or U do not contribute to credits attempted or grade points achieved, nor do they figure in the GPA, but appropriate credits earned are credited to the student's permanent record.

For students wishing to audit a course, a grade of AUD is assigned. A grade of AUD does not contribute to credits attempted, credits earned or grade points achieved. The AUD grade does not figure in the GPA.

Grade Reports

Midterm and final semester grades are recorded, and a report is made electronically to each student.

Minimum Scholarship Standards

Every student who is permitted to enroll at Bridgewater College is expected to make continuous progress toward his or her educational objective. At the end of each semester a careful evaluation of the achievement of each student is made, and a student whose quality of performance is below the minimum scholarship standards as outlined below will either be placed on academic probation or academic suspension. The Council on Education is responsible for advising the

vice president and dean for academic affairs of these standards and for hearing appeals concerning them.

The following minimum grade point standards apply:

- 1.4 End of the first semester
- 1.6 End of the freshman year
- 1.7 End of the third semester
- 1.8 End of the sophomore year
- 1.9 End of the fifth semester
- 2.0 End of the junior year
- 2.0 Senior year

While on academic probation, counseling by the deans and a student's portfolio or academic advisor may result in curtailment of co-curricular activities. The academic probation status is recorded on the student's grade report, permanent record and transcript of credits.

Following academic suspension, one is ineligible for readmission until one semester has passed. Also, a student who withdraws from the College at a time when his or her cumulative GPA is below the standard required for continued attendance is ineligible for readmission for one semester from the date of withdrawal. To be readmitted, a student who is academically suspended or is performing below the standard required for continued attendance must present sufficient evidence to the readmission committee that he or she can meet the minimum scholarship standards.

Academic Renewal Policy

Academic Renewal is a policy that allows first-year students who decide to change their major field of study, or make other program changes, to either withdraw from up to two courses after the withdrawal deadline has passed in a current term, or to receive a retroactive W grade for up to two courses, taken during the first year, in which the students received a grade of D or F.

The policy is intended to serve the first-year student who, because of a change in program or major field of study (or change in direction in the case of students who have yet to declare a major), no longer needs the course or courses in question to fulfill graduation requirements. The policy does not apply to courses that are required for general education or other programs the student is still pursuing.

Upon completion of the application process (which begins in the office of the associate dean), a student would receive a W grade for the course or courses so designated. However, any student who utilizes the Academic Renewal Policy will not be eligible for the Dean's List that term, regardless of the resulting grade point average. Grades of F assigned by the Honor Council cannot be subject to this policy.

Overload Policy

Students are permitted to enroll in a maximum of 18 credit hours without paying an overload fee. Normally only students on the Dean's List may apply to the vice president and dean for academic affairs for permission to enroll in an overload (more than 18 credit hours including courses audited). Students who are permitted to enroll for an overload must pay the overload fee.

COLLEGE POLICIES

Policy and Procedures for Sexual Misconduct Complaints

Bridgewater College is committed to providing all students with an educational environment free from discrimination. The sexual harassment of students, including sexual violence, interferes with a student's right to receive an education free from discrimination and, in the case of sexual violence, is a crime. The College's policy regarding sexual misconduct covers complaints by students of alleged sexual misconduct committed by Bridgewater College students, faculty and staff, as well as by a third party with no connection to the College. Sexual misconduct, as defined by the policy, comprises a broad range of behavior that will not be tolerated, including exploitation, harassment, non-consensual sexual contact, stalking, rape, dating violence and domestic violence. Sexual misconduct violates Bridgewater College policy and federal civil rights laws and may also result in criminal prosecution. Bridgewater College is committed to fostering a community that promotes prompt reporting of sexual misconduct and timely and fair resolution of sexual misconduct cases. Sanctions for a violation of the policy may range from a reprimand to suspension or expulsion. Creating a safe and respectful environment is the responsibility of all members of the campus community. To report a possible violation of the College's sexual misconduct policy, please contact one of the Title IX coordinators—the director of human resources, the associate dean of students or the associate athletic director—listed on the inside back cover of this catalog.

The full policy regarding sexual misconduct is found in the student handbook, *The Eagle*.

Harassment and Discrimination Grievance Procedure

Any student who believes that she or he has been assaulted, harassed or discriminated against by any member of the College community (where the allegations do not involve sexual misconduct) should promptly notify the dean of students, the associate dean of students or any area coordinator. If the complaint relates to conduct by a staff member of the department of student life, a student may notify the executive vice president. The department of student life (or the executive vice president, as the case may be) will help the student resolve the complaint informally, if appropriate, or will support the student in pursuing a more formal response. Disciplinary action imposed may range from a requirement not to repeat or continue the offending conduct, to suspension or expulsion.

The full policy is found in the student handbook, *The Eagle*.

Academic Grievance Procedure

The College recognizes that problems will occasionally arise between students and faculty regarding academic issues. The College has an academic grievance policy to address these concerns. The primary objective of the policy is to ensure that students have the opportunity to present grievances regarding members of the faculty and that the College has a consistent process for resolving those grievances in a fair, confidential and just manner.

The first step is to attempt to resolve the grievance informally by discussing it with the faculty member. If the matter is not resolved to the student's satisfaction at this level, the grievance may be submitted to the associate dean for academic affairs, who will meet with the student, the department chair and, as appropriate, the faculty member, and reach a decision. If the matter is not resolved to the student's satisfaction at this level, the student may request review by the vice president and dean for academic affairs. Whether to accept such a request is within the sole

discretion of the vice president. The decision of the vice president and dean for academic affairs is final.

The full policy is found in the student handbook, *The Eagle*.

General Student Grievance Procedure

This procedure is intended to provide students with an opportunity to seek resolution for issues not covered by the grievance procedures described above. Students are encouraged, but not required, to discuss their concerns directly with the person or persons involved, either in person or in writing. If a student is uncomfortable directly discussing her or his concern with the involved individual(s), or, after discussing it, believes that the concern is not adequately resolved, the student may utilize a more formal process. The appropriate reviewing authority will initiate an investigation of the complaint and will make a determination and inform the parties involved.

The full policy is found in the student handbook, *The Eagle*.

Family Educational Rights and Privacy Act of 1974

The Family Educational Rights and Privacy Act of 1974 (“FERPA”) pertains to student education records maintained by Bridgewater College. The Act allows students, and parents of dependent students, access to their education records while also protecting their right to privacy, by limiting the transferability of records without the students’ consent. The following are guidelines to assist all members of the Bridgewater College community in understanding the provisions of the Act as they apply to Bridgewater College.

Notification of FERPA Rights

FERPA affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student’s education records within 45 days of the day the College receives a request for access.

A student should submit to the registrar, dean, head of the academic department or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate, misleading or otherwise in violation of the student’s privacy rights under FERPA.

A student who wishes to ask the College to amend a record should write to the College official responsible for the record, clearly identify the part of the record the student wants changed and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the College discloses personally identifiable information from the student’s education records, except to the extent that

FERPA authorizes disclosure without consent.

For example, the College discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A "school official" is a person employed by the College in an administrative, supervisory, academic research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using College employees or officials (such as an attorney, auditor or collection agent); a person serving on the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a "legitimate educational interest" if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College.

Upon request, and without notice to the student, the College also discloses education records without consent of the student to officials of another school in which a student seeks or intends to enroll, and forwards such records on request.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-8520

Directory Information

The College has designated the following categories of student information as "Directory Information." The College may disclose any of these items at its discretion, without prior written consent of the student.

- Name
- Address
- Telephone number
- Email address
- Classification (e.g. freshman, full-time/part-time)
- Major(s)/Minor(s)
- Photographic or videotaped image
- Participation in officially recognized activities and sports
- Height/weight (athletic team members)
- Dates of attendance
- Date and place of birth
- Degrees, honors and awards
- Previous school attendance

If a student objects to the disclosure of any of the following information, the student must notify the registrar in writing. Requests for nondisclosure by the student are in effect from the date

received in writing from the student until rescinded in writing by the student. For practical purposes, requests should be received in the registrar's office no later than September 10 to ensure that the student's Directory Information is not published in the Campus Directory.

Additional Information

A more complete statement of the College's FERPA policy may be found on the College's website at bridgewater.edu/FERPA.

STUDENT LIFE

The department of student life provides students with educationally purposeful experiences that promote character, citizenship and community. Through collaborative relationships with faculty, staff and students, the department of student life encourages active participation in campus life through programs and services. The overarching goal of the department of student life is to enhance the quality of each student's college experience and promote success.

STUDENT ACTIVITIES

The student activities offered at Bridgewater College enrich the students' overall college experience. Students are able to engage in activities that are of interest to them, gain valuable leadership experience and learn important skills related to working with groups and individuals.

Student Government

The student body is organized into the administrative, legislative and judicial branches. Through its president and appointed student members of faculty committees, students are involved in many aspects of College operations. The Student Senate, an organization of students elected by the four classes, serves as the basic policy-making authority of the student body. The Senate must approve the student body president's appointments; may override the student body president's vetoes; may conduct impeachment proceedings against student government officials; sets guidelines for all activities of the Student Senate, the President's Cabinet and the Honor Council; and allocates funds to various student groups. Through the student government, an individual student has the opportunity to fulfill the role of a voting citizen in a community of more than 1,800 citizens, to help mold student opinion, to cooperate with the faculty in interpreting College traditions, to direct the Honor System and to serve as a citizen in relation to a general governing body for many student co-curricular activities.

Honor Council

The Honor Council, the judicial branch of the student government, hears cases involving alleged violations of the Honor Code. The Code prohibits cheating, stealing and lying in regard to academic matters, lying during Honor Council proceedings and failing to report or confront known violators of the Honor Code. The Council is composed of nine students appointed by the student body president.

They serve from the time they are appointed until graduation, resignation or impeachment. A chairperson, appointed from within the council members by the student body president, oversees each case of alleged infractions. Refer to *The Eagle* handbook for additional guidelines.

The Eagle

The Eagle, the student handbook, is a resource which outlines College policies, support services, important student information and a detailed description of all student organizations. Additionally, the “Constitution of the Student Government” and the detailed regulations under which it operates are set forth in *The Eagle*.

Eagle Productions

Eagle Productions is the programming board that plans and implements student activities on weekends. The group seeks to provide a diverse and comprehensive program of activities for the whole campus, as well as leadership development for its members. This group works with an advisor to plan and implement a creative program of weekend events on campus.

Student Clubs

Active Minds, Alpha Phi Omega service organization, American Chemical Society, Association of Computing Machinery, BC Allies, BC Collegiate Entrepreneurs Organization, BC Family Career and Community Leaders of America (FCCLA), BC Frisbee Golf, BC Republicans, BC Wrestling Club, Believers Strongly United, Black Student Association, Brethren Student Movement, Bridgewater Chapter of New Community Project, Bridgewater Chapter of Society for Human Resource Management, Bridgewater College Ultimate Frisbee Club, Bushido, Campus Crusade for Christ, Catholic Campus Ministry, Civil War Club, Comitatus, Eagle Productions, Equestrian Club, Fellowship of Christian Athletes, Future Educators of Bridgewater College, Habitat for Humanity, In-Step Dance Club, International Club, Lend A Paw, Mass Communication Organization, Physics Club, Pinion Players, Pre-Law Society, Pre-Med Society, Public History Club, Residence Hall Association, *Ripples*, Ski and Snowboard Club, Soul Pancake, Student Senate, *Veritas*, World Languages Club

Student Organizations

A Capella Choir, BC Commuters, Campus Interfaith Board, Campus Spiritual Life Board, Chorale, Church Travel Teams, Concert Choir, Gospel Choir, Handbell Choir, Interdistrict Youth Cabinet, Jazz Ensemble, National Association for Music Education, Oratorio Choir, Orientation Leaders, Pep Band, Student Alumni Network, Student Ambassador Association, Student Athlete Advisory Council, Symphonic Band

Honor Societies

Alpha Chi, Alpha Psi Omega, Beta Beta Beta, Delta Sigma Rho Tau Kappa Alpha, Lambda Pi Eta, Omicron Delta Kappa, Phi Alpha Theta, Philomathes Society, Who’s Who

Student Publications

Students write, edit and publish *Veritas*, the campus newspaper, which highlights campus news and affords students opportunities to air public opinions on campus issues, College policies and student government action. Students also publish the College yearbook, *Ripples*.

The *Philomathean* is a journal of student papers, essays, short stories, poems and visual art published each year by Bridgewater College. “Philomathean” means love of, or devotion to, learning; the *Philomathean* reflects this ideal by recognizing and honoring student creativity and scholarship. A student may submit on his or her own initiative work produced for a course, or faculty members may recommend a student’s work to a faculty editorial board that selects the contributions to be included in the publication.

Music

Bridgewater recognizes the importance of music, not only as a part of the curriculum of a liberal arts college, but also as a vital part of campus life. The Oratorio Choir is a large ensemble that rehearses during the fall semester and performs a major work before semester break. The Concert Choir, a large student ensemble, performs on campus and tours extensively in the spring semester. The Chorale is a select group of singers chosen from within the Concert Choir that performs on campus and tours at various times during the year to schools and churches.

Instrumental ensembles at Bridgewater include the Symphonic Band, the Jazz Ensemble, the Pep Band and small woodwind and brass ensembles. These bands and ensembles perform on campus in both formal and informal concerts. Other singing groups include the Gospel Choir and the A Capella Choir.

String instrument players may take applied lessons for credit. They may also register for chamber music ensembles; at the beginning of the semester, they will be assigned to chamber music groups and then participate in one of the department's chamber music concerts. They also have the opportunity to audition for near by orchestras. For more details, contact Larry Taylor, associate professor of music.

Theatre

Theatre at Bridgewater College produces two major works each year. These productions are chosen to enhance the academic experience of direct course work, as well as to respond to and reflect upon social, cultural and political issues. Theatrical production develops student talent while offering the College community the opportunity to experience a wide array of theatre genres. Additionally, theatrical production suggests to students the opportunities offered in the field of theatre.

The student-run theatre organization, the Pinion Players, provides students with co-curricular opportunities to participate in all aspects of theatrical production, from directing and acting to designing and playwriting. Activities vary yearly, are driven by student interest, and may include children's theatre productions for local elementary schools and a student-directed one-act festival.

Intramurals

The intramural office provides a program of recreational activities for students, faculty and staff that encourages participation and provides challenging competition, healthy exercise and good sportsmanship.

A complete list of intramural programs is available at bridgewater.edu/intramurals.

Outdoor Programs

Bridgewater College is committed to providing fun-filled, educational and challenging adventures to all members of the BC community regardless of skill level. The Outdoor Program sponsors monthly trips for BC students, which include indoor and outdoor rock climbing, hiking, skeet shooting, white water rafting, caving, paintball and camping.

Student Alumni Network and Alumni Association

The Bridgewater College Student Alumni Network fosters connections among alumni of all ages and students through offering networking opportunities among alumni and current students and leading and promoting student philanthropic engagement and participation at

BC. All students in good standing with the College are welcome as members of the BC Student Alumni Network.

The Bridgewater College Alumni Association seeks to strengthen the bond of loyalty between alumni and their alma mater, fosters good fellowship among alumni, organizes local alumni networks, arranges class reunions and helps promote the growth and development of the College. All graduates and students who have completed at least 25 credit hours at Bridgewater College are eligible for membership in the Alumni Association. The association charges no dues, but all members are invited to make annual contributions to the Bridgewater Fund. For more information on the BC Student Alumni Network and BC Alumni Association, please contact the office of alumni relations at 540-828-5451.

COUNSELING SERVICES

The Counseling Center provides confidential and professional counseling services to students on a short-term basis and is staffed by experienced, licensed mental health providers. Counseling Center staff specialize in counseling with individuals, couples and groups and provide a number of student development activities throughout the academic year. Our counselors are dedicated to the health, well-being and overall development of our students. The Counseling Center also consults with students, faculty, staff and others who are concerned about the unusual, problematic or potentially harmful behavior of others. The Center is open 8 a.m.–5 p.m., Monday through Friday. Appointments can be made in person, via email or by phone. Counseling services are available on campus at no cost to the student. Counseling Center records are confidential and maintained separately from all other College records.

Students who come to Bridgewater with a previous mental health history or are under the care of a mental health provider or psychiatrist are encouraged to contact Counseling Center staff prior to the beginning of the semester in order to coordinate care and ensure a smooth transition of treatment.

Some of the issues brought to the Counseling Center include:

- Homesickness
- Relationship issues
- Self-esteem concerns
- Anxiety
- Depression

HEALTH SERVICES

Health Services provides professional and compassionate health care to all students, including residential, commuting and part-time students. Health Services assists students in developing a healthy lifestyle by providing information, instruction and counseling concerning health and wellness issues.

Health Services is located in the Funkhouser Center. Operating hours are from 9 a.m. to noon, and 1 to 3 p.m., Monday through Friday during regularly scheduled class days. For further information, please visit the Health Services section of MyBC (mybc.bridgewater.edu). Health Services can also be reached at 540-828-5384.

CENTER FOR CULTURAL ENGAGEMENT

The Center for Cultural Engagement, located at 112 College View Drive, creates meaningful and substantive opportunities for students, faculty, staff and community to share, learn and grow in understanding and appreciation of cultural differences and similarities.

Globalization requires students to have a distinct set of interpersonal skills that fosters a sense of cultural sensitivity. The Center for Cultural Engagement promotes a campus community that affirms an understanding and appreciation of diversity and encourages inclusiveness of and respect for different cultures.

The center provides a variety of educational, social and cultural activities and programs that promote awareness and increase support and appreciation for diversity at Bridgewater College. Cultural awareness programs, student leadership initiatives, mentoring programs and international awareness are among the programs sponsored by the center.

SPIRITUAL LIFE

As a liberal arts college that educates the whole person, Bridgewater encourages its members to actively pursue their spiritual path within an open, inclusive and supportive community.

As one of the six colleges historically affiliated with the Church of the Brethren, Bridgewater seeks to honor its spiritual heritage while welcoming students of all religious traditions and faith perspectives as part of a diverse learning environment. BC Chapel, Catholic Mass and ecumenical campus worship convocations provide varied opportunities for worship on campus. Protestant and Roman Catholic churches, an Islamic mosque and a Reformed Jewish synagogue are located in the surrounding area within easy driving distance.

Spiritual life groups including Believers Strongly United, Brethren Student Movement, Campus Crusade for Christ, Catholic Campus Ministry and Fellowship of Christian Athletes are active and open to any who wish to participate. The BC Spiritual Life Board provides spiritual life events for the whole campus community and the campus chapters of Habitat for Humanity and New Community Project provide opportunities for students to express their faith through service to the local community and larger world.

The College chaplain coordinates the spiritual life program on campus and supports individuals experiencing illness, grief and concerns of any kind.

RESIDENCE LIFE

Bridgewater College is a community where you will meet people who will impact your life in tremendous ways. It is where you will have the opportunity to express your opinions, share your ideas and make a difference in the campus community. You will learn accountability and responsibility through activities and programs supported by dedicated, compassionate staff members and will begin a lifetime of development that truly embodies the Bridgewater spirit.

Bridgewater College residential housing features a combination of traditional residence halls, apartment living, honors houses and a village-style apartment community. Washers and dryers are provided in the residential areas for student convenience at no additional cost during the academic year.

All students are encouraged to take full advantage of opportunities for personal, social and ac-

ademic growth and development. Residence Life staff offers programs and activities in campus housing throughout the academic year. Also see Student Activities on pages 44–47 for more information about all the exciting ways you can get involved on campus.

Bridgewater College has five (5) official breaks during the academic year. All students are required to vacate the campus during Christmas break. Students may request permission to remain on campus during fall, Thanksgiving, spring and Easter breaks if circumstances require. Dining services are closed during all five breaks and will resume the evening prior to the start of classes.

Students are responsible for the proper care of their rooms and furniture. Damage to rooms and furniture, or to other College property, will be charged to those responsible.

All full-time students are required to live in College housing except: (1) students living at home with their parents or legal guardians if the parents'/guardians' principal residence is in one of the following counties: Augusta, Highland, Page, Rockingham or Shenandoah; (2) transfer students who have earned a minimum of 12 college credits at the time of matriculation; (3) students who are married or are custodial parents; (4) students 23 years of age or older; (5) current or former members of the armed forces; (6) part-time students (taking fewer than 12 credit hours per semester); and (7) students who are fifth-year seniors. Students are not required to live on-campus during the summer sessions.

MEDIATION AND CONDUCT SERVICES

The office of mediation and conduct services strives to promote a learning environment that is safe and positive, in which the rights of all members of the campus community are respected. The office seeks to promote student learning and development by increasing awareness of the College community's expectations of behavior, holding students accountable for violations of these expectations and developing educational sanctions designed to help students learn and grow from their mistakes. The office also strives to help students see both the immediate and the long-term consequences of their behavior.

The conduct process is an educational opportunity that allows individuals to learn from their mistakes, while at the same time protecting the rights of all members of the campus community. This process provides opportunities for students to discover underlying issues that lead to irresponsible behavior and to recognize the need to accept responsibility. Recognizing that our students are the leaders of tomorrow, we seek to help them develop their character and become a person of integrity through this educational process. The conduct process is explained further under Student Rights and Responsibilities in *The Eagle*, the student handbook. Every student is responsible for knowing the information and campus policies in *The Eagle*.

Restorative justice practices may also be used to address harms caused. In situations where a student takes responsibility, restorative justice may be used in addition to or in place of the conduct process. The College has two designated boards to handle various campus policy infractions: the Conduct Board and the Honor Council. Any matter may also be handled administratively by the dean of students or the vice president and dean for academic affairs.

Students involved in conflict(s) with another individual(s) or roommate may have the conflict(s) mediated with the assistance of a third party mediator assigned. To request mediation, please speak to a student life staff member.

POLICIES AND REGULATIONS

The conditions and provisions set forth in this catalog should not be considered as a contract between the College and the student. The College reserves the right to make changes in conditions and provisions.

For more information on campus policies and procedures, please refer to the student handbook, *The Eagle*.

Students are expected to take personal responsibility for their behavior and exhibit consideration for other students' rights. The College administration makes every effort to avoid arbitrary, harsh or unfair sanctions for student violations. Good citizenship in any community requires a great deal of responsibility on the part of all members. With this responsibility comes the obligation to refrain from infringing on the rights of others, whether through placing persons in danger or jeopardizing either personal wellbeing or property. When a student displays poor citizenship, blatant disregard for College policies, minimal academic motivation, or an attitude inconsistent with reasonable expectations of a member of an academic community, the student may be subject to disciplinary review, which could result in suspension or expulsion.

The College does not permit its students to possess or use alcoholic beverages on campus. Possession or use of alcoholic beverages on campus will subject the student to disciplinary action.

Possession or use of illegal drugs by Bridgewater College students is prohibited and will subject the student to disciplinary action up to and including suspension.

For more information regarding alcohol and drug policies/outcomes, refer to *The Eagle* student handbook.

The College prohibits hazing, harassment in any form, gambling or the possession or handling of firearms and fireworks in the residence halls and on the campus. Smoking and use of all tobacco products is prohibited within College buildings and is not allowed within 25 feet of any campus building.

If, at any time, the conduct of any student becomes detrimental to the work of other students, and it is in the best interest of the College, the administration reserves the right to request, or, in some cases, require, the student to withdraw from the College community. If and when a student is asked or required to withdraw, there is no refund of tuition, fees or room charges, and board fees generally are prorated.

Permission to keep a vehicle at the College must be obtained at Campus Police and Safety during the time of official registration in the fall. One must register a vehicle within 24 hours of bringing it to the College. Temporary permits are also available in the event that a student needs to substitute another vehicle for the one registered. Failure to cooperate with the above principles may subject the student to a fine or other disciplinary action.

ATHLETICS

Bridgewater College encourages participation in intercollegiate athletics by fostering a challenging and versatile athletic program. Athletics is an integral part of the academic curriculum of the College, promoting leadership, self-discipline and responsibility.

The College adheres to the philosophy of intercollegiate athletic competition based upon the principles of amateurism, sportsmanship and fair play. The following guidelines have been developed for the athletic program: (1) to place a priority on the academic progress of all students who participate in intercollegiate athletics; (2) to ensure the physical wellbeing of all student-athletes during practice, travel and play; (3) to encourage the development of each student-athlete to his or her full potential; and (4) to develop excellence in all of the College's intercollegiate athletic programs.

The College sponsors 12 intercollegiate programs for women—basketball, cross country, field hockey, golf, lacrosse, soccer, softball, swimming, tennis, indoor and outdoor track and field, and volleyball. The College also sponsors 10 intercollegiate teams for men—baseball, basketball, cross country, football, golf, lacrosse, soccer, tennis, and indoor track and outdoor track and field. The athletic program supports a cheerleading squad, a dance team and a Pep Band that perform at home football and basketball games.

The College is a Division III member of the National Collegiate Athletic Association (NCAA) and follows guidelines and policies set forth by this governing body. Bridgewater's teams are members of the Old Dominion Athletic Conference (ODAC).

The College also offers a full array of intramural and club sport opportunities.

Equestrian Program

Bridgewater College owns and operates the Bridgewater College Equestrian Center (BCEC) in Weyers Cave, about 10 minutes from campus. The College's equestrian program is based at the BCEC and includes classroom instruction, riding lessons (credit and non-credit) and riding team activities.

The equestrian team practices, trains and hosts collegiate horse shows at the BCEC, competing in the Old Dominion Athletic Conference (ODAC) and Intercollegiate Horse Show Association (IHSA) shows.

The BCEC has boarding facilities available for student-owned horses on an advance reservation basis. Additional stalls are available at the College Stables on the main campus. Please contact the BCEC staff at 540-480-7850 for information on boarding options.

FINANCIAL INFORMATION

This section contains general information regarding financial matters. **Please go to bridgewater.edu/financeoffice, for specific policies and fee information.**

Fees for the 2014–2015 Session (Full-time Students)

Residential

Tuition	\$29,750
Technology Fee	340
Student Activity Fee	290
Total Mandatory Fees	\$30,380
Residential Fee*	11,070
Total Tuition and Residential Fees	\$41,450

Non-Residential

Tuition	\$29,750
Technology Fee	170
Student Activity Fee	145
Total Tuition and Fees	\$30,065

To be considered full time, a student must be registered for a minimum of 12 credit hours during a semester. The fee schedule assumes a full-time enrollment of at least 12, but not more than 18, credit hours per semester. Students enrolled in less than 12 credit hours will be charged part-time fees. Overload charges will apply to all credit hours in excess of 18 per semester. See bridgewater.edu/financeoffice for current part-time and overload fees.

One-half of the tuition and fees total is due for each semester:

Fall semester payment is due **August 7, 2014**.

Spring semester payment is due **January 6, 2015**.

**The residential fee includes a base room in a traditional residence hall and the continuous dining meal plan. Additional fees are assessed for certain residence hall options chosen by the student.*

Late Payments

Payments must be received in the student accounts office by 4 p.m. on the due dates listed above. Payments received after the due date will be assessed a late fee. After 30 days, past-due accounts are subject to additional penalties not to exceed 12 percent per year. Students may not complete class registration until satisfactory arrangements have been made with the student accounts office for payment of all fees. The College does not issue transcripts of credits for students with delinquent accounts.

Reservation Deposits

Full-time students must confirm their intention to enroll by making a reservation deposit. The reservation deposit is applied to the fall semester charges for the upcoming year and is non-refundable after May 1 for new students. Students admitted after May 1 must make a deposit

within 10 days after admission. For returning students, the reservation deposit is due early in the spring semester (due dates to be announced each year) and is nonrefundable. Returning students who fail to make the deposit on time must pay a penalty and may not complete preliminary registration, select classes or reserve a room until the deposit and the penalty have been paid.

Interterm

Interterm is part of the academic year, and half of the basic Interterm fees are included in each semester billing for full-time students. No refund for tuition or residential fees will be given to students not attending Interterm. There may be additional charges to students enrolled in Interterm courses involving travel, off-campus housing or other expenses.

Part-Time Students

A part-time student (one who is registered for fewer than 12 credit hours in a semester and who resides off campus) pays on a per-credit-hour basis in accordance with the fee schedule posted on the College website, plus a registration fee per semester. Payment must be made at the time of class registration. A part-time student is not eligible to receive scholarship aid or to reside on campus. Part-time students are not billed prior to registration.

Other Fees

In addition to the fees listed, certain elective courses require student fees that are established at the beginning of each academic year. Horseback riding and private music lessons are examples of such fee courses. Also, four-credit classes with a lab are typically charged a lab fee. Additional fees are assessed for certain dormitory rooms (single rooms, etc.) and vehicle registration, course overloads, etc. These fees are subject to change without notice. See bridgewater.edu/financeoffice for a current list of fees.

Deposits

Damage to dormitory buildings and furniture is charged to a dormitory room and key deposit. The dormitory and room key deposit is made at the time the student first enrolls and is retained by the College until the student either graduates or withdraws. Returning students cover assessments that have been made against the deposit by bringing it back to the level of the initial deposit at the time of each fall registration. Failure on the part of the student to complete the dorm checkout process properly at the end of each academic year may cause the deposit to be forfeited. Any unused portion of the deposit will be refunded at graduation or upon withdrawal from the College after checkout is complete.

Personal Expenses

Each student pays for his or her own personal expenses and books. Please note that students are not permitted to charge books to their student accounts.

Withdrawal from College

To withdraw from Bridgewater College at any time during a semester, a student must first confer with the associate dean for academic affairs who will provide a form requiring the signatures of appropriate College personnel. A student called to active military service is responsible for providing the appropriate military orders. **A student who fails to withdraw properly may forfeit his or her dormitory and room key deposit, will receive failing grades in all currently enrolled courses and may be ineligible for refunds as described below.**

Refunds

Only limited refunds can be made when a student withdraws from the College. Advance deposits are not refunded in any instance.

The financial aid of a student who does not complete the semester for any reason will be reduced in accordance with mandatory federal guidelines. All questions concerning refund amounts should be addressed to the student accounts office.

Withdrawal Due to Health Reasons or Military Service

In the event of an approved withdrawal for health reasons, a refund of tuition and fees is provided according to the following schedule:

- During the first two weeks of the semester 80%
- During the third or fourth weeks 50%
- During the fifth or sixth weeks 20%
- After the sixth week No Refund

No refund is given for the room charge, but a portion of the residential fee may be prorated. Confidential written documentation in support of a medical withdrawal must be provided by a physician or other certified medical practitioner to the associate dean for academic affairs in order for this schedule to apply. In most cases, the supporting documentation must be received within **two weeks** after the withdrawal date.

Withdrawal Due to Personal Reasons

In the event of an approved withdrawal for personal reasons, a refund of tuition and fees is provided according to the following schedule.

- During the first two weeks of the semester 50%
- During the third or fourth weeks 25%
- After the fourth week No Refund

No refund is given for the room charge, but a portion of the residential fee may be prorated.

Mandatory Withdrawal

In the event of a disciplinary suspension or administrative withdrawal, refunds are generally treated as a withdrawal due to personal reasons.

Methods of Payment

The inclusive fee for each semester is due according to the schedule on page 52. Fees for part-time students are due at the time of official registration. All financial aid administered by the College is applied to the students' accounts at the rate of one-half for each of the fall and spring semesters. Work-study earnings are paid directly to the student via direct deposit bi-weekly.

The College accepts cash, checks, money orders and all major credit cards for tuition payments. A service fee will be charged for all credit card payments, including debit card payments. People who prefer to pay the inclusive fee in equal installments may choose to enroll in the Tuition Payment Flex Plan administered by Advanced Education Services (AES). **See bridgewater.edu/financeoffice for additional information.**

Alumni Learning Tuition Program

The Alumni Learning Tuition program provides tuition discounts for Bridgewater College graduates wishing to further their education. Graduates may register for Bridgewater College classes at 50 percent of the current undergraduate tuition rate, provided that:

- They have completed a degree program at Bridgewater College.
- They are pursuing either professional certification or a second major.
- Classroom space is available after giving first priority to current undergraduates.
- Class size requirements are met.
- They do not have an outstanding balance with Bridgewater College.

Returning graduates will be assigned an advisor who will help them develop an academic plan according to their goals. Applications for the Alumni Learning Tuition program are available in the office of the registrar. This program does not apply to summer courses.

FINANCIAL AID

Recognizing that College costs are a legitimate concern to many students, Bridgewater College commits significant institutional resources for grants and scholarships. To assist as many students as possible, the aggregate of institutional funds for an individual student is restricted to an amount equivalent to tuition and fees and may apply only to semesters taken on campus. Institutional grants and scholarships apply to institutional costs associated with undergraduate enrollment during the academic year and exclude summer school. The financial aid office coordinates resources provided by the college, as well as state and federal aid programs to provide a substantial and varied program of financial aid.

Federal Government Financial Aid

Both returning and new students are required to submit the Free Application for Federal Student Aid (FAFSA) for the 2014–2015 academic year no sooner than Jan. 1, 2014 and the priority deadline is March 1, 2014. Applications submitted after March 1 will be processed as long as funds are available. The FAFSA is also the approved application for need-based institutional and state financial aid programs. The financial aid office begins releasing aid packages to prospective students after March 15 on a rolling basis. Returning students receive their aid packages after June 15.

Listed below are brief descriptions of the Title IV federal aid programs for students who are citizens or permanent residents of the United States. Full-time status for financial aid regulations is enrollment in a minimum of 12 credit hours in each semester while half-time status is enrollment for 6–11 credit hours. Selected federal programs can be awarded to students enrolled on a part-time basis. The analysis of the FAFSA determines eligibility for Title IV aid programs. All students are subject to satisfactory academic progress standards in order to maintain eligibility for participation. Entering freshmen and transfers are considered to be making satisfactory academic progress based upon their admission. However, after that point, satisfactory academic progress is measured according to the information listed on page 56. The financial aid office staff is available to answer questions about the issue of satisfactory academic progress for financial aid.

Title IV Federal Aid Programs

1. **Federal Perkins Loan**—Students with exceptional need may be offered Perkins awards of \$500 to \$2,000 per academic year. Repayment begins nine months after a

student drops below half-time status. The interest rate during the repayment period is five percent. Based upon total funds borrowed, the repayment period has a limit of 10 years.

2. **Federal Pell Grant**—Authorized under the Higher Education Amendments of 1972, eligible undergraduate students will receive a grant ranging from \$587 to \$5,730 in the 2014–2015 academic year. Eligibility is tied to the Expected Family Contribution (EFC), which is determined by an analysis of the FAFSA.
3. **Federal Supplemental Educational Opportunity Grant**—Under the Higher Education Act of 1965 and subsequent amendments, grant funds are available for the neediest students as determined by the EFC. Pell Grant recipients have first priority for these funds. Awards may range from \$100 to \$1,000.
4. **Federal Work-Study Program**—A number of job opportunities are filled by students who meet the provisions of the federally subsidized employment program. Employment is performed under conditions established by federal aid regulations.
5. **Federal Direct Loan**—If the analysis of the FAFSA determines that financial need exists the student is eligible for a Direct Subsidized Loan. If no financial need exists, the student is eligible for a Direct Unsubsidized Loan. The distinction between these categories is in regards to accrual of interest while the student is enrolled on at least a half-time basis.

For a Direct Subsidized Loan, the federal government covers interest while the student is enrolled at least half-time. For a Direct Unsubsidized Loan, the student borrower must make interest payments while in school or have payments capitalized. Maximum annual loan limits are \$5,500 for freshmen, \$6,500 for sophomores, and \$7,500 for juniors and seniors.

6. **Federal Direct Parent Loan to Undergraduate Students**—This program is designed to assist parents in borrowing money to pay for undergraduate educational expenses. To be eligible for a PLUS loan, the parent must be creditworthy. The maximum loan is the educational cost of attendance budget less financial aid awarded. Repayment begins within 60 days of final disbursement, unless the parent requests an in-school deferment.

Complete information about the Title IV federal aid programs can be found online at studentaid.gov.

Satisfactory Academic Progress

Students must meet the requirements specified below in order to receive Title IV federal aid.

Qualitative Measure—Students must have at least a 1.700 cumulative grade point average (GPA) by completion of their second semester and at least a 2.000 cumulative GPA by completion of their fourth semester. A minimum year-end 2.000 cumulative GPA must then be maintained until graduation.

Quantitative (Pace) Measure—Students must successfully complete at least 67 percent of the courses they attempt. Withdrawn (W) grades and transfer credits count as attempted hours for this purpose.

Maximum Time Frame—Students must not attempt more than 150 percent of the hours required for their degree program.

A student who does not meet the specified requirements may make an appeal for aid if extenuating circumstances existed. The financial aid committee rules on all satisfactory academic progress appeals.

Federal Aid—Return of Title IV Funds

While Bridgewater College has a refund policy for charges, outlined on page 54, a separate policy for federal aid exists as described in the “Return of Title IV Funds” regulations published by the U.S. Department of Education. The amount of aid earned is calculated on a pro rata basis through 60 percent of the payment period. The amount of unearned Title IV aid is then returned to various Title IV aid programs, including Federal Direct Loan, Federal Perkins Loan, Federal PLUS Loan, Federal Pell Grant, Federal Supplemental Educational Opportunity Grant and other Title IV programs. If the student has received any assistance from the Title IV funds in the order listed above, the return of funds will go to those specific programs in the order received. After 60 percent of the payment period (academic semester) has been completed, all Title IV funds have been earned and continue to be available for payment against institutional charges. It is possible for students whose accounts were paid in full at the start of a term to owe payment for the balance of charges after the return of Title IV funds is completed. The withdrawal date for use in this process can begin in several different ways. The standard procedure begins with the date that the student picks up a withdrawal form from the associate dean for academic affairs, or the date that the student orally or in writing provides an official notification to the institution of their intent to withdraw, can be the valid withdrawal date. If a student gives no official notification, Bridgewater College has the option of using the midpoint of the payment period or a withdrawal date documented with the student’s attendance at an academically related activity. Before a student takes any action to withdraw, it would be advantageous to learn the refund policy that the business office will use as well as the implications of any refund of Title IV funds. Any questions concerning this issue should be addressed to the financial aid office. All questions concerning final resolution of the account balance in the student accounts office should be addressed to the vice president for finance.

Academic Scholarships

Freshmen

Eligibility for the following scholarships is based on cumulative high school GPA, class rank, SAT/ACT test scores and quality of high school curriculum. Annual renewal requires a minimum year-end GPA of 2.3 (C+) unless otherwise noted. Recipients receive the award for a maximum of eight semesters (does not include summer school) toward the undergraduate degree.

1. **Achieving in a Community of Excellence (ACE) Scholarships**—variable stipends of \$16,500, \$19,200 and \$22,400 for 2014–2015.
2. **President’s Merit Plus Award**—a full tuition scholarship awarded to no more than 10 resident freshmen. Annual renewal requires a year-end cumulative GPA of no less than 3.0.
3. **Church of the Brethren Scholarship**—awarded to eligible freshmen who are members of the Church of the Brethren. The stipend is \$2,500 for resident students and \$1,500 for commuter students.

Transfers

Eligibility for the following scholarships is based on credits earned and cumulative GPA for all college work. A minimum of 12 transferable credits and a 3.0 cumulative college GPA are required for ACE scholarship consideration. Annual renewal requires a minimum year-end GPA of 2.3.

1. **Achieving in a Community of Excellence (ACE) Scholarships**—variable stipends of \$9,000, \$11,000 and \$13,000 for 2014–2015.
2. **Church of the Brethren Scholarships**—awarded to eligible transfer students who are members of the Church of the Brethren. The stipend is \$2,500 for resident students and \$1,500 for commuter students.

Institutional Grants

1. **General Grant**—Need-based grant awarded to selected students who have demonstrated financial need based upon the analysis of their Free Application for Federal Student Aid (FAFSA).
2. **Transfer Grant**—\$5,000 grant awarded to transfer students (never attended Bridgewater College) with a minimum of 12 transferable credits earned after graduation from high school.
3. **Phi Theta Kappa Scholarship**—\$3,000 grant awarded to transfer students with membership in PTK from the community college system.
4. **Eagle Award**—\$10,000 or \$14,500 grant awarded to selected incoming freshmen who do not qualify for academic scholarships.

Commonwealth of Virginia Financial Aid

Virginia Tuition Assistance Grant—The amount of a Virginia Tuition Assistance Grant is determined by the Virginia General Assembly. During the 2013–2014 academic session, the maximum estimated value of this grant was \$3,100. To be eligible, the student must be a legal resident or domiciliary of Virginia and must be enrolled in at least 12 credit hours of work in each semester. The deadline to apply is July 31. An application form is available at bridgewater.edu/finaid.

Endowed Scholarships

Endowed scholarships are funded through gifts from interested alumni and friends, churches and the income of endowed funds. Each scholarship has select criteria and eligibility requirements associated with it. Currently, Bridgewater College has more than 200 endowed scholarships to award to eligible students.



COURSES *of* INSTRUCTION

Although there is variation by departments, freshman courses are generally numbered 100–199; sophomore courses 200–299; and junior and senior courses 300–499. Course numbers and descriptions listed herein apply to the 2014–2015 academic year.

Each course title includes a department abbreviation and course number. In the case of courses that satisfy specific categories of general education, the following letter designations may appear just after the course number: “W” for “Writing Intensive,” “E” for “Ethical Reasoning” and “X” for “Experiential Learning.” Courses always offered as Honors Courses will have a letter designation of “H” just after the course number. To the right of the course title, there appears another number, indicating the number of semester credit hours granted for the course, and one or more letters indicating when the course is offered: “F” stands for “Fall Semester,” “I” for “January Interterm” and “S” for “Spring Semester.” The College reserves the right to alter the schedule of courses as circumstances dictate.

Except for internships, independent studies, research, honors projects, interdisciplinary studies and foundational general education courses, the courses of instruction are organized by departments. Opportunities for qualified students to engage in internships, independent studies, research and honors projects are available in each department.

INTERDISCIPLINARY *and* INDEPENDENT STUDIES

PDP-150 Critical Inquiry in the Liberal Arts

3 Credits F, S

Taught in the style of a seminar: a small group of students learn critical thinking skills through discussion, debate, peer review and brainstorming. Content varies from section to section. Incoming students rank topic preferences and then are assigned to a section. Focuses specifically on two key areas of personal development: (1) intellectual growth is stimulated through systematic critical questioning, and (2) a sense of community involvement and responsibility is developed through classroom group work, collaborative learning and a class community engagement project. The course also contains success skill exercises and college orientation information, including an introduction to the portfolio program.

General education: master core skills

PDP-350 Integrating the Liberal Arts

3 Credits F, S

Introduction to the academic community of Bridgewater College, the liberal arts and the skills of critical thinking specifically designed for transfer students. Taught in the style of a seminar: a small group of students engage in discussion, debate, peer review and brainstorming. Content varies from section to section. Incoming students rank topic preferences and then are assigned to a section. Focuses specifically on two key areas of personal development: (1) intellectual growth is stimulated through systematic critical questioning, and (2) a sense of community involvement and responsibility is developed through classroom group work, collaborative learning and a class community engagement project. The course also contains success skill exercises and college orientation information, including an introduction to the portfolio program.

General education: master core skills

PDP-450 Integrated Senior E-Portfolio

1 Credit F, S

The culminating experience for the Personal Development Portfolio program. Students create a senior e-portfolio, which demonstrates and documents their experiences and growth over the four years, integrating both curricular and co-curricular experiences, as well as experiential learning experiences, and discussing short- and long-term goals and aspirations for the future. A passing grade, as determined by faculty evaluators from a variety of disciplines, is a requirement for graduation.

General education: integration of skills and ideas

IDS-100H, IDS-200H, IDS-300H, IDS-400H Course Linkage

1 Credit each F, S

Examination of the relationships and connections between two courses in different disciplines. Students complete a major paper or project that integrates concepts and themes of the two courses. One desiring to pursue a course linkage must submit a completed application at the time of registration.

Prerequisites: membership in Flory Fellowship of Scholars and approval of instructors of both courses

IDS-201 Leadership Development Seminar

3 Credits F

Designed to help students become better leaders. Students come to understand, develop and apply the knowledge, skills, attitudes and vision associated with effective, socially responsible leadership.

IDS-311, IDS-312 Leadership Skills I, II

1 Credit each F, S

Provides the student with background information and practice opportunities for skills of leadership such as team building, goal setting, interpersonal communication, decision making and conflict resolution. Different sets of skills are developed in Leadership Skills I and Leadership Skills II.

Prerequisites: sophomore standing

IDS-470H Honors Capstone Seminar

3 Credits

Senior capstone experience for students in the Flory Fellowship of Scholars, emphasizing the nature of scholarly inquiry and the interdisciplinary, liberal arts experience.

Prerequisites: membership in Flory Fellowship of Scholars

480 Internship

3 Credits F, I, S

Provides an opportunity for a student to gain field experience in an area related to the student's concentration or career goals. Supervision of an intern is provided by an appropriate faculty member and by a staff member of the agency or business in which the student is an intern. A student who wishes to engage in an internship must consult with the appropriate faculty member at least eight weeks in advance of the start of the term in which the internship is to be completed. A description of the internship, signed by the student and the faculty sponsor, must be filed with the director of internships by the first day of the semester prior to the start of the internship. Approval of each application for an internship is made by the director of internships based upon policies and guidelines as approved by the Council on Education and the faculty. To be considered for an internship, a student must have junior or senior status and at least a 2.00 grade point average. Internships are graded on an S or U basis. A student may enroll in an internship program for 3 credits per semester, and internship credit may be earned in subsequent semesters subject to the limitations that no more than two internships may be pursued in any one agency or business and a maximum of 9 credits in internships may be applied toward graduation.

490, 491 Independent Study/Research

3 Credits F, I, S

Upon approval of the department and the vice president and dean for academic affairs, a student with a cumulative grade point average of 2.20 or better may engage in an independent study or research project. One desiring to pursue independent study or research must submit a written description of the proposed work to the chair of the appropriate department and to the vice president and dean for academic affairs prior to the last day of the drop and add period for the semester in which the study is to be conducted. At the end of the semester, the supervising professor files with the registrar a grade for the student and a description of the work accomplished. Credit may be received for not more than three independent studies or research projects.

499 Honors Project

3 Credits F, I, S

An honors project is one in which a student researches a subject, by examination of relevant literature or by experimentation or both; the student reports the results in an accurately documented and well-written paper or appropriate representation of the work. Whenever the study deals with the subject of an established course, the student is expected to go well beyond the usual work of the course in research and in assimilation of the results as revealed in the report. Juniors and seniors with a cumulative grade point average of 3.40 or above may register for an honors project. One desiring to pursue an honors project must submit a written description of his or her proposed work to the chair of the appropriate department and to the vice president and dean for academic affairs prior to the last day of the drop and add period for the semester in which the study is to be conducted. Upon the completion of the Honors Project, the student must present an oral defense of his or her project. The final grade must include a satisfactory performance on the oral defense, assessed by a three-faculty member team. The Project Advisor will authorize the make-up of the oral defense team and will assign the final grade on the project. The honors project title will be noted on the student's transcript. It is the student's responsibility to provide a copy of the written paper or appropriate representation of the work to the library in compliance with specifications approved by the Council on Education. The library director arranges for binding and storage.

Dr. John S. Flory Fellowship of Scholars—see page 32.

ART

MAJORS

Art

MINORS

Art

CONCENTRATIONS

Digital Media

Multimedia Authoring

The art department offers introductory and advanced courses in ceramics, design, drawing, painting, photography, sculpture, videography and art history. All students, regardless of major, are welcome in art courses, as visual art is for and about everyone.

The art major provides a concentrated hands-on experience that promotes deep learning in art and broad skill development across the college curriculum. Students majoring in art study a range of art media and processes while mastering at least one in depth. Flexibility is a crucial advantage of the art major's compact size, allowing and encouraging students to easily pursue second majors and minors in other disciplines. The art department also offers concentrations—stand-alone sets of courses in focused areas including Digital Media and Multimedia Authoring (in collaboration with the communication studies department)—along with internships, study abroad opportunities, field trips, visiting artists and exhibition opportunities.

The art major, minor and concentrations appeal to many student interests including

- Visual art as a personal interest and commitment
- Careers in teaching, visual communication and art
- Graduate study in art and design
- Study in art combined with career ambitions in other fields
- Experimenting with art for the first time

ART MAJOR

Requires a bachelor of arts degree and consists of a minimum of 36 semester hours distributed as follows:

Foundation

Three courses (9 credits):

ART-120 Introduction to Visual Design

ART-121 Introduction to Digital Media

-or-

Any digital media course at the 300-level

ART-130 Introduction to Drawing and Pictorial Composition

Art History

Three courses (9 credits):

ART-200 Survey of Art, Prehistory–1400

ART-201 Survey of Art, 1400–Present

ART-300 Modern and Post-Modern Art

Studio Focus

Select four studio courses including at least one 400-level course from the following:

ART-310	Hand Built Ceramics
ART-311	Wheel Thrown Ceramics I
ART-315	Kinetic Sculpture
ART-322	Web Theory and Design
ART-323	Graphic Design
ART-328	Exploring the Book Arts
ART-331	Collage and Assemblage
ART-332	Drawing Marathon
ART-335	Painting and Color Composition
ART-344	Photography—Digital Capture/Digital Darkroom
ART-346	Lighting Workshop for Photographers
ART-347	Videography
ART-411	Wheel Thrown Ceramics II
ART-415	Advanced Sculpture
ART-430	Advanced Drawing
ART-435	Advanced Painting
ART-444	Advanced Photography—Digital Darkroom
ART-470	Special Topics

Capstone

Two courses (6 credits):

ART-451	Senior Thesis
ART-461	Professional Practices

ART MINOR

Consists of a minimum of 18 semester hours distributed as follows:

Foundations

Two courses (6 credits):

ART-120	Introduction to Visual Design
-or-	
ART-121	Introduction to Digital Media
ART-130	Introduction to Drawing and Pictorial Composition

Art History

Select one course (3 credits):

ART-200	Survey of Art History, Prehistory–1400
ART-201	Survey of Art History, 1400–Present
ART-300	Modern and Post-Modern Art

Studio Focus

Select two courses (6 credits)

ART-310	Hand Built Ceramics
ART-311	Wheel Thrown Ceramics I
ART-315	Kinetic Sculpture
ART-322	Web Theory and Design
ART-323	Graphic Design
ART-328	Exploring the Book Arts
ART-331	Collage and Assemblage
ART-332	Drawing Marathon
ART-335	Painting and Color Composition
ART-344	Photography—Digital Capture/Digital Darkroom
ART-346	Lighting Workshop for Photographers
ART-347	Videography

ART-411	Wheel Thrown Ceramics II
ART-415	Advanced Sculpture
ART-430	Advanced Drawing
ART-435	Advanced Painting
ART-444	Advanced Photography—Digital Darkroom
ART-470	Special Topics

Capstone

Select one course (3 credits):

ART-451	Senior Thesis
ART-461	Professional Practices

DIGITAL MEDIA CONCENTRATION

The Digital Media concentration consists of 12 credit hours and is designed for students in any major wishing to develop broad creative, visual and technical skills in photography, video, web design and graphic design. Introduction to Visual Design, while not a digital course, provides foundation skills in visual design essential to creating effective communication in any visual medium and is strongly recommended as a first course.

Required course (3 credits):

ART-120	Introduction to Visual Design
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Select three courses (9 credits):

ART-322	Web Theory and Design
ART-323	Graphic Design
ART-344	Photography—Digital Capture/Digital Darkroom
ART-347	Videography

MULTIMEDIA AUTHORIZING CONCENTRATION

The Multimedia Authoring concentration consists of 12 credits and combines theory and practice in contemporary media writing and public relations with hands-on experience in photography, videography and design. This concentration is open to students in any major wishing to develop the skills to both author and produce effective multimedia communications in a new media journalism and public relations context.

Required course (3 credits):

COMM/ENG-255W	Multimedia Information Production
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Select three courses (9 credits):

COMM/ENG-305	Multimedia Reporting and Writing
^{-or-} COMM-347	Strategic Public Relations
ART-344	Photography—Digital Capture/Digital Darkroom
^{-or-} ART-444	Advanced Photography—Digital Darkroom
^{-or-} ART-347	Videography

COURSES

ART-100	Introduction to the Visual Arts	3 Credits
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A beginning exploration of the visual arts, addressing the field from both critical and practical points of view. The goal is to make the visual arts more accessible as sources of inspiration, knowledge and pleasure.

ART-115	Introduction to Sculpture	3 Credits
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Studio exploration of 3-D forms in various materials, including wood, clay, plaster and metals. Emphasis on

process, technical skills in manipulating media and aesthetic concepts.

Corequisites: ENG-110

General education: fine arts and music

ART-120 Introduction to Visual Design 3 Credits F, S

This studio course provides a project-based introduction to the elements and principles of 2-D and 3-D design in an art and visual communication context. Problem solving, vocabulary, technical proficiency and practical applications in art, design and everyday life are emphasized. This course is open to all students. For art majors, this course is a prerequisite to 300-level studio courses

ART-121 Introduction to Digital Media 3 Credits F, S

A broad introduction to digital media and visual literacy through hands-on work in photography, typography and page design, web development and digital storytelling. The course provides a substantial head start for students planning to take intermediate and advanced digital media courses. As a stand-alone, this course provides practical skills and creative launch points to support work in other disciplines.

ART-130 Introduction to Drawing and Pictorial Composition 3 Credits F, S

Studio-based exploration of drawing from observation and drawing as a way of generating, testing and articulating visual ideas.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

ART-200 Survey of Art History, Prehistory–1400 3 Credits F

Overview of the history of art from the mysterious cave paintings and carvings of the Paleolithic to the towering structures of Gothic cathedrals. Required for art majors and minors and highly recommended to other students as a visual approach to the study of history and society.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

ART-201 Survey of Art History, 1400–Present 3 Credits S

Overview of the history of art from the Renaissance to the present. Required for art majors and minors and highly recommended for other students as a visual approach to the study of history and society.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

ART-300 Modern and Post-Modern Art 3 Credits S

Critical study of the visual arts of the last 100 years with emphasis on understanding the implications of the concepts we know as modernism and postmodernism.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

ART-305 Museums and Galleries 3 Credits I

Critical study of the visual arts understood through the institutions we call museums.

ART-307 Visual Arts of Spain 3 Credits I

Travel course exploring the visual arts and culture of Spain.

ART-309 The Artist's Studio and Society 3 Credits I

Critical examination of where, why and how visual artists work. Considers the relationships between artists and the communities in which they live and work.

ART-310 Hand Built Ceramics 3 Credits S

Studio course working with clay to create functional and sculptural forms using coils, slabs and press molds.

Corequisites: ENG-110

General education: fine arts and music

- ART-311 Wheel Thrown Ceramics I** 3 Credits S
 Studio introduction to the potter's wheel as a tool in the production of functional and sculptural clay forms.
Corequisites: ENG-110
General education: fine arts and music
- ART-315 Kinetic Sculpture** 3 Credits I
 Studio exploration of sculptural forms that move. Projects include flip books, mobiles and sculptures propelled by wind, water and motors.
- ART-316 Metal Sculpture** 3 Credits I
 Studio exploration of solving and designing and personal expression in metal fabrication using arc welding, plasma cutting, oxy/acetylene welding and cutting, cold metal work, mechanical fastenings and MIG welding.
- ART-322 Web Theory and Design** 3 Credits S
 Studio course in the practice of designing and constructing websites with emphasis on visual/textural, structural and technical elements related to public communication.
- ART-323 Graphic Design** 3 Credits S
 Studio exploration of graphic design thinking—visual communication using image and text—and design process—creative thinking and problem-solving—using digital tools for print and screen media.
Corequisites: ENG-110
General education: fine arts and music
- ART-328 Exploring the Book Arts** 3 Credits I
 Interdisciplinary studio course creating visual/verbal artists' books including experimental approaches to narrative and form. Students design, create and bind original artists' books.
- ART-331 Collage and Assemblage** 3 Credits I
 Studio course exploring the use of found materials to make 2-D and 3-D visual art.
- ART-332 Drawing Marathon** 3 Credits I
 Intensive studio course exploring the world around us via drawing with emphasis on the development of sensitive looking and the artist's individual creative visual voice.
- ART-335 Painting and Color Composition** 3 Credits S
 Studio exploration of the materials and techniques of painting and advanced concepts and practical applications of color theory.
Corequisites: PDP-150 or PDP-350
General education: fine arts and music
- ART-344 Photography—Digital Capture/Digital Darkroom** 3 Credits F, S
 Image capture using digital cameras. Digital capture allows rapid and extensive image iteration, making it uniquely suited to emphasize student mastery of aesthetic and critical concepts like point of view framing, lighting and exploration of photo history/photo genre. Introduction to basic digital printing processes.
Corequisites: PDP-150 or PDP-350
General education: fine arts and music
- ART-346 Lighting Workshop for Photographers** 3 Credits I
 Exploration of concepts and skills related to studio lighting for portraits, objects and environments. Hot lights, strobe-based systems and on-camera flash are introduced along with concepts related to visual assessment of lighting and tone, contrast and color measurement and control. Special effects such as light painting are introduced.
Prerequisites: ART-121 or ART-344
- ART-347 Videography** 3 Credits S
 Studio introduction to digital video using digital single-lens reflex cameras and advanced compact cameras with HD video capacity. Includes camera operation and controls, camera movements and support, lighting, sound and editing. Also explores content development, composition, narrative structure and storytelling in

capture and editing phases, along with intersections among digital video and other digital media.

Corequisites: COMM-100

General education: fine arts and music

Alternate years: offered 2014–2015

ART-411 Wheel Thrown Ceramics II 3 Credits S

Continuation of ART-311, building more advanced forms including multiples, large-scale pieces and sculptural forms. Emphasis is on personal experimentation and expression through aesthetic forms and advanced instruction in materials and surface techniques.

Prerequisites: ART-311 or permission of department

ART-415 Advanced Sculpture 3 credits F

An advanced studio course in which students develop a series of related sculptural forms in a specific medium. The focus is on in-depth exploration of materials, advanced techniques, and the development of individual working processes and creative voices. Knowledge of historical and contemporary sculpture is emphasized.

Prerequisites: ART-115

ART-430 Advanced Drawing 3 credits F

An advanced-level studio course in drawing, exploring the potential of various drawing media. Emphasis on advanced mastery of drawing and composition skills and on the development of individual interests and concepts conveyed through drawing.

Prerequisites: ART-130 or ART-335

ART-435 Advanced Painting 3 credits F

An advanced-level studio course in painting, exploring the technical and conceptual potential of paint media (oil, acrylic, other water-based paints, and mixed-media/collage) and color composition. Emphasis on advanced mastery of painting and compositional skills and on the development of individual interests and concepts conveyed through painting.

Prerequisites: ART-130 or ART-335

ART-444 Advanced Photography—Digital Darkroom 3 Credits F

Advanced-level photography course using Photoshop as a digital darkroom for “straight” photography or as a tool for photographic manipulation and transformation. Emphasis on developing advanced visual and technical skills and conceptual photographing. Advanced digital capture and film scanning techniques. Culminates in a photographic portfolio representing individual directions.

Prerequisites: ART-344

ART-451 Senior Thesis 3 Credits S

A senior level studio-based course in which students propose and produce a coherent body of original work for a senior exhibition. Work is made independently with oversight provided by weekly critique sessions with classmates and the professor. Additional support and instruction is available when either the student or the professor sees the need. Students design and install their exhibitions in consultation with the gallery director in a suitable site on campus. Students are required to keep a studio journal, which marks and reflects upon the development of their thesis work. At the end of the semester each student presents a senior portfolio including a formal artist’s statement, professional résumé, and documentation of thesis work in high quality digital images.

Prerequisites: senior art majors or minors or permission of instructor

ART-461 Professional Practices 3 Credits S

Practical preparation for the world of creative work beyond college. Deals with the business, ethics and law of art as well as designing and mounting senior exhibitions.

Prerequisites: senior art majors or minors or permission of instructor

ART-470 Special Topics 3 Credits F, S

Independent studio work as defined in a formal contract between the student and an art faculty member. The contract sets specific goals and parameters including the amount and kind of production required

F = Fall Semester I = Interterm S = Spring Semester

and dates for work sessions and critiques. Semester grades determined by a final critique with the entire department faculty. Permission of the department and a contract satisfactory to both the student and the supervising faculty member are required.

Prerequisites: permission of department chair

ART-480	Internship	3 Credits	F, I, S
ART-490	Independent Study	3 Credits	F, I, S
ART-491	Research	3 Credits	F, I, S
ART-499	Honors Project	3 Credits	F, I, S

BIOLOGY

MAJORS

Biology

MINORS

Biology

EMPHASES

Wildlife Biology

PRE-PROFESSIONAL PROGRAMS

Dentistry

Medicine

Veterinary Science

DUAL DEGREE PROGRAMS

Nursing—Vanderbilt University

Physical Therapy—Shenandoah University

The biology department is one of Bridgewater's largest, with nine full-time faculty and approximately 200 majors. The department, which occupies all of the first floor of the McKinney Center for Science and Mathematics, contains six major teaching laboratories, six mini-labs for faculty and student research, along with offices and classrooms. The biology department offers introductory and advanced courses that prepare majors either for immediate employment or post-baccalaureate studies at graduate or professional schools. All Bridgewater students must take at least one biology course; many take two or three.

The biology department provides excellent preparation for students seeking entry into graduate or professional programs (medical, dentistry, veterinary, physician's assistant, nursing, physical therapy). These programs prepare interested students for graduate and professional work in selected areas.

Rapidly expanding knowledge in cell biology, molecular genetics and ecology assures bright futures for well-prepared biologists. With a baccalaureate degree, recent graduates have gained employment as life science teachers; laboratory technicians in industry, allied health, and government; environmental and conservation professionals; health officers; caseworkers; naturalists; and pharmaceutical salespersons. With graduate or professional degrees, Bridgewater alumni have become successful physicians, research scientists, veterinarians, medical technologists, environmental lawyers, dentists, physical therapists, genetic counselors and forestry and wildlife specialists.

BIOLOGY MAJOR

Consists of a minimum of 44 credit hours of courses in biology, chemistry and mathematics. The following courses are required (38 credits):

BIOL-110	Principles of Biology I
BIOL-111	Principles of Biology II
BIOL-309	Genetics
BIOL-311	Animal Physiology
-or-	
BIOL-314	Human Physiology
BIOL-325	Molecular Biology of the Cell

BIOL-350	Ecology
BIOL-430	Evolution
CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
MATH-130	Survey of Calculus

In addition, two elective courses (6–8 credits) numbered 300 or higher from BIOL are required.

Note that only 3 credits may be chosen from BIOL-460, BIOL-490, BIOL-491 or BIOL-499 and Internship (BIOL-480) cannot be used to meet this requirement.

BIOLOGY MINOR

Consists of 31 credit hours including the following courses:

BIOL-110	Principles of Biology I
BIOL-111	Principles of Biology II
BIOL-309	Genetics
BIOL-325	Molecular Biology of the Cell
BIOL-350	Ecology
CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
MATH-130	Survey of Calculus

WILDLIFE BIOLOGY EMPHASIS

The Wildlife Biology emphasis allows students wanting the breadth of the biology or environmental science major to also focus in areas of wildlife biology and management. In this program, students will take 11–17 additional credits on top of their major to specialize in wildlife. The program offers directed study in wildlife management and techniques, botany, zoology, and policy and ethics. This program along with the biology or environmental science major and the general education requirements will support students wishing to pursue careers with state and federal agencies, graduate degree programs in wildlife biology, as well as those who wish to pursue Wildlife Biologist Certification through the Wildlife Society.

Consists of 23 credits. Biology majors may overlap two courses with their major electives and Environmental Science majors may overlap three courses with their major electives. The requirements are as follows:

Wildlife Management and Techniques

Environmental Science majors take one course; Biology majors take two courses:

BIOL/ENVR-312W	Forest and Wildlife Resource Management
BIOL/ENVR-365	Field Biology and Natural History
BIOL/ENVR-402	Conservation Biology

Molecules, Anatomy and Physiology

Environmental Science majors take one course; Biology majors take no courses:

BIOL-309	Genetics
BIOL-311	Animal Physiology
BIOL-325	Molecular Biology of the Cell
BIOL-412	Comparative Vertebrate Anatomy

Botany

Environmental Science and Biology majors take one course:

BIOL-335	Summer Flora
BIOL-420	Plant Taxonomy

Zoology/Organisms

Environmental Science and Biology majors take two courses:

BIOL-316	Ornithology: The Biology of Birds
BIOL-318	Biology of Insects
BIOL-321	Herpetology
BIOL/ENVR-433	Biology and Management of Fishes

Policy/Ethics

Environmental Science and Biology majors take one course:

PHIL-235E	Bioethics
PHIL-320E	Professional Ethics
PHIL-340EW	Environmental Ethics
ENVR-234E	Wildlife Ethics
ENVR-305	Natural Resources & Environmental Law

TEACHER CERTIFICATION

Teacher certification for biology consists of completing the major requirements for biology, satisfactory performance on the biology PRAXIS II exam, and completing at least one semester of organic chemistry, chosen from the following:

CHEM-250	Fundamental Organic Chemistry
-or-	
CHEM-305	Organic Chemistry I

Students are also encouraged to consider earning certification in earth science due to the high demand for teachers in this area. This can be accomplished with satisfactory performance on the earth science PRAXIS II exam and interested students are encouraged to take CHEM-102 or GEOL-130 as preparation. Refer to the education department listing for additional certification requirements.

ARTICULATION PROGRAMS

The department has pursued articulation programs with other institutions in other fields as well. These include **veterinary science** with Virginia Tech, **physical therapy** with Shenandoah University, and **nursing** with Vanderbilt University. The department also articulates mentored internships with numerous local and regional governmental agencies, clinics, industries and research labs. Biology majors have interned with the Virginia Commission of Game and Inland Fisheries, the Wildlife Center of Virginia, the Virginia Department of Environmental Quality, West Virginia State University research labs, local hospitals, industries and veterinary clinics.

THE SMITHSONIAN-MASON SEMESTER FOR CONSERVATION STUDIES

Bridgewater College is a member institution of the Smithsonian-Mason Semester which is run by George Mason University out of the Smithsonian Conservation Biology Institute (SCBI) in Front Royal, Va. In this program, students live on the SCBI campus (a world-class conservation research facility) and learn about the theory and application of conservation biology (including the social, political and economic dimensions). Students participate in one of two 16 credit hour programs: Ecology for Effective Conservation Practices or Applied Conservation Strategies (for any student interested in conservation). Interested students should visit the program's website (smconservation.gmu.edu/programs/undergraduate) and contact the biology department or the coordinator of international education.

Both programs are appropriate for juniors and seniors. There are no specific prerequisite classes for the Applied Conservation Strategies. That program is open to all majors. The Ecology for Effective Conservation Practices semester has Ecology (BIOL-350) as a prerequisite.

COURSES

BIOL-100 The Nature of the Biological World 4 Credits F, S

Survey of the discipline of biology designed for the non-major. Content varies with the expertise of the instructor, but all sections focus on the relevance/importance of biology in everyday life. Laboratory focuses on understanding science as a process and includes an independent research project with oral presentation. Three lectures and one lab per week.

Corequisites: MATH-118

General education: natural and physical sciences

BIOL-101 Environmental Biology 4 Credits F, S

Introduces basic biological concepts and applies them to help students understand the causes and solutions of environmental problems. Addresses a wide variety of environmental issues including biodiversity loss, the effects of pollution on organisms and ecosystems, and global climate change. Special emphasis given to help students understand how scientific knowledge is developed and scientific information can be found, interpreted and applied by society. Three lectures and one lab per week.

Corequisites: MATH-118

General education: natural and physical sciences

BIOL-102 Research Experience in Biology 3 Credits I

Helps freshman and sophomore biology and environmental science majors understand how scientists learn about the natural world. A hands-on introduction to the scientific method and the philosophy of science. Students engage in a variety of lab-based activities inside and outside the classroom that introduces them to basic biological techniques. Students develop key skills such as critical thinking, experimental design, data graphing, interpretation and analysis.

Prerequisites: BIOL-100, BIOL-101 or BIOL-110

BIOL-110 Principles of Biology I 4 Credits F, S

Introduction to the biological sciences covering biological chemistry, cell structure and function, genetics and microevolution (natural selection, genetic drift, etc.). Intended for biology and environmental science majors. Three lectures and one lab per week.

Corequisites: MATH-110

General education: natural and physical sciences

BIOL-111 Principles of Biology II 4 Credits F, S

Introduction to the biological sciences covering macroevolution (systematic, taxonomy, phylogenetics), ecology and biodiversity. Intended for biology and environmental science majors. Three lectures and one lab per week.

Prerequisites: BIOL-110

BIOL-112 Human Biology 4 Credits F, S

Introduction to the structure, function and organization of the human body and the scientific method. Topics include chemistry and cell structure, anatomy and physiology, genetics, and evolution. Intended for athletic training, health and exercise science, and nutrition and wellness majors. Three lectures and one lab per week.

Corequisites: MATH-118

General education: natural and physical sciences

BIOL-120 What's Down with Stormwater Runoff 3 Credits I

Introduction to the effects of stormwater runoff on watersheds (such as the Chesapeake Bay), with the goal of increasing awareness of students as citizens to their surroundings in terms of local and broader urban and natural environments. Current stormwater management practices and their effectiveness, as well as regulatory efforts, are discussed. Presentations and field assignments focus on increasing abilities to make thoughtful observations of the outside world and increasing understanding of local practices and impacts on the health of watersheds.

BIOL-130 Evolutionary Biology

3 Credits |

Introduction to biological evolution intended for non-majors. As a central concept in and the major unifying theme of biology, understanding evolution is important to everyone for comprehending the implications of new research in fields such as human medicine, global climate change and conservation of endangered species. Additionally, biological evolution is frequently in the public eye as a result of challenges to its validity by proponents of creation. This course discusses the historical development of the theory, the evidence that supports evolution and the processes of evolution. Other topics may be covered based on student interest and may include human evolution, the fossil record, speciation and the origin of life.

Prerequisites: BIOL-100, BIOL-101 or permission of instructor

Alternate years: offered 2014–2015

Credit may not be received for both BIOL-130 and BIOL-430

BIOL-210 Hijacking Genes

3 Credits |

Exploration of promises, applications and expectations of modern molecular biology, including movement of genes among species, DNA in criminology, and advances that might make us free of disease and hunger.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112, or permission of instructor

Credit may not be received for both BIOL-210 and 309 or 325

BIOL-215 Biology of Human Diversity and Pseudoscience of Racism

3 Credits |

Human populations throughout the world differ in their physical appearance, behavior, customs, lifestyles, etc. Students learn about the biological basis of human homogeneity and diversity, and critically examine the construct of race as a sanctioned method of classifying human species into different groups. Consideration of biological principles that define species and subgroups, and discussion of key differences between early and modern techniques that biologists use to classify organisms. Case studies and examples from geographic locations around the world address some of the enormous social implications (health care, education, law enforcement) of using faulty science to group human beings into distinct racial categories.

Prerequisites: PDP-150 or PDP-350; ENG-110; MATH-110 or MATH-115 or MATH-118; and BIOL-100, BIOL-110 or BIOL-112

General education: global dynamics

Alternate years: offered 2014–2015

BIOL-216 Human Genetics

3 Credits |

Application of genetics to the human population including familial genetics, cytogenetics, population genetics, medical genetics, genetic counseling, pedigree analysis, the human genome, bioinformatics, DNA fingerprinting, gene therapy and therapeutic cloning. The latest advances in this dynamic field are explored.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112

Alternate years: offered 2014–2015

Credit may not be received for both BIOL-216 and 309 or 325

BIOL-220 Wildlife of Virginia

3 Credits |

Biology, systematics and natural history of wildlife species native to the Central Appalachians. Emphasis on birds and mammals having historical, economic, aesthetic and/or recreational value.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112

BIOL-230 Environmental Science Sustaining the Earth

3 Credits |

Basic concepts of environmental science including human impact on the natural world and potential solutions to the major environmental challenges facing individuals and societies.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112, or permission of instructor

BIOL-240 Economic Botany

3 Credits |

Plants are so pervasive in the lives of people that we take them for granted. From plants we derive everything from building materials, food, drugs, coal (fossil plants), clothing and even the oxygen we breathe. Examines how we use (and often abuse) plants in everyday life, how we are trying to mass produce crops in the face of exponential human population growth, and the impact of the loss of biodiversity as we

manipulate our environment.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112

Alternate years: offered 2015–2016

BIOL-253 Travel Course in Tropical Ecology

3 Credits I

A travel course that introduces the ecology of various tropical destinations outside the United States.

Tropical habitats may include wetlands, seasonally dry forests, lowland wet forests and cloud forests. Topics include an examination of climate factors and seasonality, as well as the biotic processes (including competition, predation and symbiotic interactions) that structure terrestrial and marine ecological communities in the tropics. In the field students observe important plants and animals and understanding the biological processes that affect tropical ecosystems. Students also discuss tropical ecotourism, conservation and management of tropical forests. The destination for a given year is announced in advance.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112

BIOL-256 Conservation Biology of Florida (Cross-listed as ENVR-256)

3 Credits I

Due to its location, geology and climate, Florida supports a variety of unique species and ecosystems. It also supports rapidly growing human populations and diverse economic activities. This course provides an overview of environmental and conservation issues that have arisen as human activity has increased (including water quality, decline of biodiversity, invasive species, and wetland loss and restoration). The class travels to Florida where they learn about environmental and conservation problems and solutions. Students examine the science as well as the economic, political and social aspects of the issues.

Prerequisites: BIOL-100, BIOL-101 or BIOL-110, or permission of instructor

BIOL-257 Marine Ecology

3 Credits I

Field-based introduction to the biology and ecology of marine organisms and their habitats. Students learn about 1) the ocean as an environment, 2) the characteristics of organisms living in and near the ocean with a focus on marine invertebrates and fishes, and 3) ecological principles that govern the distribution and abundance of those organisms. A major focus is on the ecology of tropical marine ecosystems. Applied aspects of marine ecology including human impacts, managements, conservation, fisheries and tourism are included throughout the course. There is also time to explore terrestrial tropical ecosystems, such as freshwater mangrove forests and tropical forests, and cultural markets or archaeological ruins, depending on the field site. Potential locations for the course include Belize, Florida, Bermuda or other marine education centers located on islands such as Little Cayman in the Caribbean.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112, or permission of instructor

BIOL-259 Travel Course in Natural History

3 Credits I

Explores the biology, geology, climate and natural history of geographic regions outside the Shenandoah Valley. Students examine the ecosystems, flora/fauna and conservation issues of the destination. This is a field course requiring travel during Interterm. In the past the course has traveled to South Africa.

Prerequisites: BIOL-100, BIOL-101, BIOL-110 or BIOL-112

BIOL-301 Principles of Environmental Science (Cross-listed as ENVR-301)

4 Credits F

Exploration of basic biological, chemical, geological and physical processes at work on the earth, its lifeforms and its natural resources. The extent of human impact and the need for global awareness are emphasized, along with the need for application of rapidly expanding knowledge and technology toward solution of environmental problems. Three lectures and one lab per week.

Prerequisites: BIOL-110 and BIOL-111, or CHEM-161 and CHEM-162, or permission of instructor

BIOL-302 Medical Terminology

3 Credits I

For students intending to enter the health professions. Discussion of basic medical terms, their meanings and etymologies, along with rules for combining prefixes and suffixes. Correct pronunciation and spelling are stressed. Class activities include daily terminology drills, case study presentations, literature analysis, weekly test, Internet exercises and a research paper.

Prerequisites: BIOL-305 or permission of instructor

Alternate years: offered 2015–2016

- BIOL-305 Introduction to Human Anatomy** 4 Credits F, S
Introduction to the structure and function of the human body, examining the skeletal, muscular, circulatory, nervous, digestive, respiratory, urinary and reproductive systems. Lecture focuses on topics of physiology/function, histology, and their relation to anatomical structure, while the lab focuses on descriptive anatomy. Three lectures and one lab per week.
Prerequisites: BIOL-110 or BIOL-112, or permission of instructor
- BIOL-308 Domestic Animal Nutrition** 3 Credits I
Introduction to nutrition and digestion in domestic animals, designed primarily for students in the pre-veterinary program. Topics include major nutrient classes and their functions in the body, feed classification and chemical analysis, feed processing and nutrient requirements.
Prerequisites: BIOL-111
Alternate years: offered 2015–2016
- BIOL-309 Genetics** 4 Credits F
Introduction to both classical, Mendelian inheritance, and molecular genetics with one lab per week.
Prerequisites: BIOL-111; CHEM-161 recommended
Credit may not be received for both BIOL-210 and 309 or BIOL-216 and 309
- BIOL-310 Histology** 4 Credits S
A systematic treatment of the microscopic structure of tissues and organs surveying the major organ systems of the body with a focus on cellular anatomy and physiology. Three lectures and one lab per week.
Prerequisites: BIOL-110 or BIOL-112; BIOL-305 or BIOL-314 recommended
Alternate years: offered 2015–2016
- BIOL-311 Animal Physiology** 4 Credits F
Introduction to the basic physical and chemical functions necessary for animal life. Topics include basic physiological functions (membrane physiology, action potential generation/propagation, muscle contraction) and complex physiological activities (osmoregulation and water balance, thermoregulation, metabolism, neurophysiology, neural and endocrine control of organ systems and behavior) in both invertebrate and vertebrate animals. Three lectures and one lab per week.
Prerequisites: BIOL-111
Credit may not be received for both BIOL-311 and BIOL-314
- BIOL-312W Forest and Wildlife Resource Management** (Cross-listed as ENVR-312) 4 Credits F
Ecology and management of forest lands and their animal populations, including principles and policy in support of diverse goals such as preservation of wilderness, management for harvest, parks and recreation, and habitat recovery. Effects of geology, soils, water and climate on habitat quality and management implications. Three lectures and one lab per week.
Prerequisites: PDP-150 or PDP-350, ENG-110 and BIOL-111 or permission of instructor
General education: writing intensive
- BIOL-314 Human Physiology** 4 Credits F, S
Introduction to the physiology of the human body including the physiology of enzymes and membranes, tissue physiology (nervous, muscular) and a detailed survey of the physiology of the major organ systems. Three lectures and one lab per week.
Prerequisites: BIOL-111; or BIOL-112 and BIOL-305
Credit may not be received for both BIOL-311 and BIOL-314
- BIOL-316 Ornithology: The Biology of Birds** 4 Credits S
Explores the anatomy, physiology, ecology and behaviors that have produced an extraordinary biodiversity of bird species. The major groups of modern birds are introduced, and their origin and ecology are examined. Students learn to recognize local species in the field and examine them in the lab using the ornithology collections. Suitable for both biology majors and non-majors.
Prerequisites: BIOL-100, BIOL-110 or BIOL-112
Alternate years: offered 2014–2015

- BIOL-317 Biology of Mind** (Cross-listed as PSY-317) 3 Credits S
 Examination of the contribution of neuroscience techniques to the understanding of sensation/perception, attention, learning, memory, language and consciousness. Lectures and papers involve an analysis of the interdisciplinary methods such as functional neuroimaging, electrophysiological methods and the neurological impairments of brain-damaged patients.
Prerequisites: PSY-101 and PSY-210 or BIOL-110 or BIOL-112 or permission of instructor
- BIOL-318 Biology of the Insects** 4 Credits F
 Introduction to entomology, emphasizing the biology of insects along with their positive and negative interactions with humans. Field and laboratory studies stress insect systematics, life cycles, natural history, adaptive physiology and parasitic relationships. Three lectures and one lab per week.
Prerequisites: BIOL-111 or permission of instructor
- BIOL-319 Functional Neuroanatomy** (Cross-listed as PSY-319) 3 Credits F
 Comprehensive analysis of the organization of vertebrate nervous systems approached from a structural perspective with emphasis on the human central nervous system. Principles of organization are stressed. Laboratory component introduces students to neuroanatomical and neurohistological methods and techniques. Both the gross and fine microscopic anatomy of the nervous system are studied.
Prerequisites: PSY-101 and PSY-210 or BIOL-110 or BIOL-112 or permission of instructor
- BIOL-320 Developmental Biology** 3 Credits I
 Introduction to developmental biology with a focus on its fundamental aspects: embryogenesis, growth, cellular differentiation and morphogenesis. The study of theory is supplemented with hands-on observations of early development in animal embryos (salamander and/or mouse, or other animals). Considers the impact of recent advances in developmental biology on our society by exploring the ethical, moral and religious implications, as well as the legal issues that inevitably arise from work in this field.
Prerequisites: BIOL-111 and one additional BIOL course numbered 200 or above
Alternate years: offered 2015–2016
- BIOL-321 Herpetology** 4 Credits S
 An introduction to the study of amphibians and reptiles. Lectures will focus on the origin and evolution of amphibians and reptiles, and on their biology, ecology and conservation. Lab will emphasize taxonomy, anatomy, species identification, and common field techniques used to study these groups.
Prerequisites: BIOL-111
Alternate years: offered 2014–2015
- BIOL-325 Molecular Biology of the Cell** 4 Credits S
 The molecular basis of cell structure and function. Topics include the chemistry, architecture and analysis of macromolecules, overview of thermodynamics and metabolism, enzymology, genetic processes and controls, recombinant DNA technology and cell signaling mechanisms. Three lectures and one lab per week.
Prerequisites: BIOL-309
- BIOL-330 Biostatistics** 3 Credits S
 Introduction to fundamental statistical methods for biology students. Topics include descriptive statistics, experimental design and hypothesis testing. Material includes basic parametric and non-parametric statistical methods preparing students to analyze experiments testing multiple factors and multiple treatment groups. Two lectures and one lab per week.
Prerequisites: BIOL-111 and MATH-110
Alternate years: offered 2014–2015
- BIOL-335 Summer Flora** 4 Credits Sum
 Survey of the vascular flora of the Shenandoah Valley and surrounding mountain areas. Field-based course that introduces students to the identification of plants in the field of their ecology. Plant collection and specimen preservation are also included.
Prerequisites: BIOL-111

BIOL-340 Botany

4 Credits F

A comprehensive survey of the plant kingdom that will include topics ranging from plant anatomy, physiology, diversity and ecology. Students interested in ecology, forestry and wildlife biology will find this course particularly useful. Three lectures and one lab per week.

Prerequisites: BIOL-111

Alternate years: offered 2014–2015

BIOL-350 Ecology

4 Credits F

Analysis of the distribution and abundance of organisms, population growth and regulation, and species interactions, as well as community and ecosystem processes. Three lectures and one lab per week.

Prerequisites: BIOL-111 and MATH-130

BIOL-354 Winter Ecology

3 Credits I

Field-based study of what effects winter temperatures have on local flora and fauna and how they cope during these cold months. The potential impact of global warming on these seasonally dependent systems is addressed. Students learn how to identify plants in their winter state and make observations of what animals are active.

Prerequisites: BIOL-111

Alternate years: offered 2014–2015

BIOL-365 Field Biology and Natural History (Cross-listed as ENVR-365)

4 Credits Sum

Field-based course providing a broad overview of techniques and concepts involved in field biology (especially ecology) including basic scientific method and a variety of sampling techniques. Course content also has a strong emphasis on basic natural history as students learn about and experience a wide variety of organisms (e.g. plant, fungi, insects, fish, amphibians and mammals), ecosystems (e.g. forests, grasslands, wetlands, ponds and streams) and ecological interactions. Students also discuss techniques for interpreting/teaching these biological concepts to others.

Prerequisites: BIOL-111 or permission of instructor

BIOL-375 Applied Neuropsychology (Cross-listed as PSY-375)

3 Credits S

Multidisciplinary course in neuroscience, with clinical ties to neurology, psychiatry and psychology, as well as basic scientific links to biology, computer science and cognitive studies. Examines how the structure and function of the brain relate to specific cognitive processes and overt behaviors through the use of neuropsychological testing methods. Topics include orientation, learning and memory, intelligence, language, visuosperception and executive functioning. The administration, scoring and interpretation of various neuropsychological measures are discussed.

Prerequisites: PSY-230 or MATH-140 or SOC-322 and PSY-210 or PSY-317 or PSY-319 or BIOL-110 or BIOL-112, or permission of instructor

BIOL-400 Microbiology

4 Credits F

Introductory survey of microbiology with an emphasis on bacteriology. The lecture component covers the structure, nutrition, metabolism and genetics of microbes, medical microbiology, diagnostic techniques, microbial ecology and industrial microbiology. The lab component includes biological safety, microscopy, culture techniques, media, staining, identification of unknown bacteria and an independent research project. Two lectures and two labs per week.

Prerequisites: BIOL-325 or permission of instructor

BIOL-401 Environmental Microbiology (Cross-listed as ENVR-401)

4 Credits F

Exploration of how microorganisms interact with their environment and the implications of these interactions for humans. Specific topics include antibiotic resistance; biodegradation; biodiversity; biofuels; bioremediation; extreme environments; geochemical cycles; methods for sampling; culture and analysis of environmental microorganisms; microbiology of air, water and soil; environmental pathogens; and microbiological treatment of sewage and water. Three lectures and one lab per week.

Prerequisites: BIOL-325 or ENVR/CHEM-320

Alternate years: offered 2014–2015

BIOL-402 Conservation Biology (Cross-listed as ENVR-402) 4 Credits S

Survey of the methods used by the public and private sectors to manage the environment and natural resources. Primary emphasis on restoration ecology and conservation biology. Other topics addressed include environmental engineering (e.g. green chemistry and design of pollution control devices), economic considerations in conservation (e.g. conservation land easements and ecotourism), and government regulation. The lab provides students with experience applying standard methods of monitoring biological resources. The lab also provides an opportunity for students to hear talks from environmental experts and to travel to local sites where management activities are occurring.

Prerequisites: BIOL-111 or permission of instructor

Alternate years: offered 2014–2015

BIOL-403 Pathogenic Microbiology 4 Credits F

Exploration of major human pathogens, including viruses, bacteria, fungi, protozoa and helminths. Topics include host-parasite interactions, host defenses, pathogenic mechanisms, control of microorganisms, diagnosis and identification of infectious agents, antibiotic therapy, disease transmission and epidemiology. Class activities include discussion of medical case studies, literature analysis, identification of unknowns and field trips. Three lectures and one lab per week.

Prerequisites: BIOL-325 or permission of instructor; BIOL-400 strongly recommended

Alternate years: offered 2015–2016

BIOL-405 Biochemistry (Cross-listed as CHEM-405) 4 Credits S

Introduction to protein structure, enzymes, and kinetics, along with a survey of the metabolism of carbohydrates, proteins, lipids and nucleic acids. Three lectures and one lab per week.

Prerequisites: BIOL-325 and CHEM-306 or CHEM-310 or concurrent enrollment in CHEM-306 with permission of instructor

Alternate years: offered 2015–2016

BIOL-410 Immunology 4 Credits S

Development of immune responses through humoral and cell-mediated mechanisms transplantation and tumor immunology, hypersensitivity reactions, autoimmunity and serology. Three lectures and one lab per week.

Prerequisites: BIOL-325 or permission of instructor

Alternate years: offered 2014–2015

BIOL-411 Advanced Human Anatomy 3 Credits I

Expands on several topics introduced in BIOL-305. Lecture explores how clinical tests and drug therapies are used to evaluate medical conditions associated with the cardiovascular, respiratory, urinary and nervous systems while the lab provides students with a more in-depth examination of skeletal and muscular anatomy.

Prerequisites: BIOL-305

BIOL-412 Comparative Vertebrate Anatomy 4 Credits S

Comparative study of the major organ systems in vertebrate animals. Lectures examine topics such as the origin and adaptive evolution of vertebrate anatomy and the systematic relationships between vertebrate groups. The lab provides a detailed examination of vertebrate anatomy. Two lectures and two labs per week.

Prerequisites: BIOL-111

Alternate years: offered 2015–2016

BIOL-420 Plant Taxonomy 4 Credits S

Broad survey of the diversity and classification of vascular plants. Students learn to recognize common and important plant families as well as learn to identify local taxa. Traditional and modern methods of taxonomy and systematics are presented.

Prerequisites: BIOL-111

Alternate years: offered 2014–2015

BIOL-422 Biogeography

3 Credits S

Introduces the current and historical distributions of organisms in relation to all aspects of geography including climate, altitude, latitude, soils, etc. and how those distributions have changed over time. Combines information from physiology, ecology and evolution. Field trips taken to illustrate local biogeographic patterns.

Prerequisites: BIOL-111; BIOL-350 recommended

Alternate years: offered 2015–2016

BIOL-425 Neuroscience Methods (Cross-listed as PSY-425)

4 Credits S

Lecture and laboratory course exposing students to a variety of research techniques employed by neuroscientists including behavioral and cognitive procedures for measuring reward, memory, attention and emotion; neuroanatomical procedures for staining and examining brain tissues; physiological procedures for recording the electrical activity of nerve cells, as well as commonly used techniques used to explore brain-behavior relationships (EEG, lesions, electrical and chemical stimulation).

Prerequisites: PSY-317 or PSY-319 and CHEM-125 or higher or permission of instructor

BIOL-430 Evolution

3 Credits S

Examination of the mechanisms of biological evolution including mutation, natural selection, genetic drift, nonrandom mating, the genetic structure of species populations, the origin of new species and DNA evidence regarding relationships among species and higher taxa.

Prerequisites: BIOL-325 and BIOL-350

BIOL-433 Biology and Management of Fishes (Cross-listed as ENVR-433)

4 Credits S

Survey of diversity of fish (with an emphasis on freshwater fish of North America). Topics include taxonomy, anatomy, physiology, behavior and ecology. Special emphasis on management of fish populations and diversity in the face of environmental threats including pollution, habitat alteration, overharvest and invasive species. Lab includes basic ecology and behavior but focuses heavily on common fisheries' techniques.

Prerequisites: BIOL/ENVR-301 or BIOL-350 or permission of instructor

Alternate years: offered 2015–2016

BIOL-435 Freshwater Ecology (Cross-listed as ENVR-435)

4 Credits F

Introduction to aquatic ecosystems (lakes, ponds, streams and wetlands). Students learn about the major chemical and physical processes that determine the function of freshwater systems. Students are introduced to the major groups of aquatic organisms (algae, vascular plants, invertebrates, fish and amphibians). Strong emphasis on the impacts that humans have on freshwater systems. The lab introduces the basic skills necessary for the study and management of fresh waters.

Prerequisites: BIOL/ENVR-301 or BIOL-350 or permission of instructor

Alternate years: offered 2015–2016

BIOL-440 Animal Behavior

4 Credits S

Introduction to the theoretical framework and the methodology of animal behavior research. Students examine the causation, development, current function and evolutionary history of behavior of invertebrates and vertebrates. Integrates concepts and principles from multiple disciplines to understand behaviors such as foraging and predation, mating systems, communication, parental care, social hierarchies and territoriality. Students also review the history of the field of animal behavior and the contributions that animal behavior research can make to applied disciplines such as environmental conservation, biomedical research and human psychology.

Prerequisites: any one of the following: BIOL-311, BIOL-314, or BIOL-350, PSY-210, or permission of instructor

Alternate years: offered 2014–2015

BIOL-460 Special Topics

3 Credits F, I, S

Studies from the areas of physiology, genetics, ecology, plant systematics, plant anatomy or plant physiology, and invertebrate zoology or entomology.

Prerequisites: permission of department

Offered on demand.

F = Fall Semester I = Interterm S = Spring Semester

BIOL-480	Internship	3 Credits	F, I, S
BIOL-490	Independent Study	3 Credits	F, I, S
BIOL-491	Research	3 Credits	F, I, S
BIOL-499	Honors Project	3 Credits	F, I, S

CHEMISTRY

MAJORS

Applied Chemistry
Chemistry

MINORS

Applied Chemistry
Physical Chemistry

PRE-PROFESSIONAL PROGRAMS

Pharmacy

The chemistry department provides a solid foundation in the basic areas of chemistry (analytical, organic, inorganic, physical and biochemical) for a student preparing for graduate or professional school, an industrial career or a career in chemical education. Chemistry students have numerous laboratory experiences as well as the possibility of participating in a senior research project. In addition, seniors often have the opportunity to present their work at the undergraduate research symposium sponsored by the Virginia Section of the American Chemical Society.

The departmental curriculum is intended to foster an increasing sense of independence in the student. Students build a firm understanding of chemical principles in general chemistry (first year) and organic chemistry (second year). In the junior and senior years, students take classes from each member of the department who specialize in different areas of chemistry, resulting in chemistry graduates who are well-prepared for graduate school or an industrial career in the sciences.

The pre-professional program in pharmacy is designed for students who may be interested in attending pharmacy school after graduation. Students complete a rigorous schedule of chemistry, biology and general education courses in order to satisfy the requirements of various pharmacy schools. Students generally apply to pharmacy schools after their third or fourth year at Bridgewater. Interested students should contact the chemistry department chair.

CHEMISTRY MAJOR

The following courses are required:

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
CHEM-305	Organic Chemistry I
CHEM-310	Organic Chemistry II and Spectroscopy
CHEM-370	Advanced Inorganic Chemistry
CHEM-380	Instrumental Analysis
CHEM-415	Physical Chemistry for the Life Sciences
CHEM-427	Physical Chemistry of Solutions with Laboratory
CHEM-451	Advanced Chemical Techniques I
CHEM-452	Advanced Chemical Techniques II
	-or-
CHEM-499	Honors Project
MATH-131	Calculus I
MATH-132	Calculus II
PHYS-221	General Physics I

PHYS-222 General Physics II

And one additional CHEM course numbered 350 or above except CHEM-405.

APPLIED CHEMISTRY MAJOR

Consists of 41 credit hours including the following courses:

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
CHEM-305	Organic Chemistry I
CHEM-310	Organic Chemistry II and Spectroscopy
CHEM-315	Fundamentals of Biochemistry
-or-	
CHEM-405	Biochemistry
CHEM-320	Environmental Chemistry
CHEM-370	Advanced Inorganic Chemistry
CHEM-380	Instrumental Analysis
CHEM-415	Physical Chemistry for the Life Sciences
MATH-130	Survey Calculus
-or-	
MATH-131	Calculus I
MATH-140	Introduction to Statistics

APPLIED CHEMISTRY MINOR

Consists of 28-32 credit hours including the following courses:

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
CHEM-305	Organic Chemistry I
CHEM-306	Organic Chemistry II
-or-	
CHEM-310	Organic Chemistry II and Spectroscopy
MATH-130	Survey Calculus
-or-	
MATH-131	Calculus I

And three courses from the following:

CHEM-315	Fundamentals of Biochemistry
-or-	
CHEM-405	Biochemistry
CHEM-320	Environmental Chemistry
CHEM-360	Advanced Organic Chemistry
CHEM-365	Computational Chemistry
CHEM-370	Advanced Inorganic Chemistry
CHEM-380	Instrumental Analysis
CHEM-415	Physical Chemistry for the Life Sciences

PHYSICAL CHEMISTRY MINOR

Consists of 32 credit hours including the following courses:

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
CHEM-305	Organic Chemistry I
CHEM-415	Physical Chemistry for the Life Sciences
CHEM-425	Physical Chemistry of Solutions
MATH-131	Calculus I
MATH-132	Calculus II
PHYS-221	General Physics I

PHYS-222 General Physics II

GENERAL EDUCATION REQUIREMENT

The following courses satisfy Bridgewater College's general education requirement for natural and physical sciences:

- CHEM-102 Earth and its Physical Resource (for students majoring in a non-science area)
 CHEM-161 General Chemistry I (for science majors)
 GEOL-130 Physical Geology (for students majoring in a non-science area)

CHEMISTRY COURSE PREREQUISITES

- MATH-110 or MATH-118 is a prerequisite for CHEM-125.
 MATH-110 is a prerequisite for any CHEM course numbered above 125.
 MATH-130 or MATH-131 is a prerequisite for all CHEM courses numbered 350 or above.
 MATH-132 is a prerequisite for all CHEM courses numbered 420 or above.

COURSES

- CHEM-100 Murder They Wrote** 3 Credits I
 Examination of various poisons both from a historical perspective and how they have been depicted in literature and movies.
- CHEM-102 The Earth and its Physical Resources** 4 Credits F, S
 The history of the earth and its place in the universe, geologic processes, environmental problems and weather. Three hours of lecture and one two-hour lab per week. Field trips may be taken during lab.
Corequisites: MATH-110, MATH-115 or MATH-118
General education: natural and physical sciences
- CHEM-110 Introduction to Medicinal Chemistry** 3 Credits I
 Introduction to the principles and practices of medicinal chemistry including insight into the development of new therapeutic compounds, the timeline and steps involved with FDA approval, and the common causes for side effects and other downstream problems associated with a drug's public release. Hands-on simulations for drug design using computational software and outside lectures from practicing medicinal chemists.
- CHEM-120 Fundamentals of Environmental Chemistry** 3 Credits I
 Introduction to the chemical basis of environmental issues. Topics include water and water pollution, atmospheric and soil chemistry, acid rain, the ozone layer, the greenhouse effect and the pollution of heavy metals and pesticides. Consists of lectures, field trips and a lab.
- CHEM-121 Energy and the Environment** 3 Credits I
 Benefits and problems associated with various methods of energy generation. Field trips are scheduled to the North Anna Nuclear Power station, a hydroelectric plant and a coal-fired power plant.
- CHEM-122 Science and Pseudoscience** 3 Credits I
 Examination of rational and skeptical thinking as applied to scientific and pseudoscientific phenomena. Explorations of such topics as unidentified flying objects, the Bermuda Triangle and "Chariots of the Gods" are given via lectures by the instructor and individual student presentations.
- CHEM-125 Fundamentals of Inorganic Chemistry** 4 Credits F
 Basic principles of structure, composition and reactions of matter. Designed as a survey course for health science majors. Does not satisfy requirements for majors in biology or chemistry. Three hours of lecture and one two-hour lab per week.
Prerequisites: MATH-110 or MATH-118
Credit may not be received for both CHEM-125 and CHEM-161

CHEM-161, CHEM-162 General Chemistry I, II 4 Credits each F, S

Principles of chemistry including stoichiometry, states of matter, atomic and molecular structure, chemical bonding, periodicity, energy relationships and equilibria, acid-base chemistry, electrochemistry, kinetics, solubility, thermodynamics, kinetic molecular theory of gases and the systematic study of families of elements. Three hours of lecture and one four-hour lab per week.

Prerequisites for CHEM-161: MATH-110, MATH-115 or MATH-118

Prerequisites for CHEM-162: CHEM-161 or permission of instructor

General education for CHEM-161: natural and physical sciences

Credit may not be received for both CHEM-125 and CHEM-161

CHEM-250 Fundamental Organic Chemistry 4 Credits F

Overview of the functional groups and reactivity of organic molecules using biological examples. Three hours of lecture and one two-hour lab per week.

Prerequisites: CHEM-125 or CHEM-162

Credit may not be received for both CHEM-250 and CHEM-305

CHEM-305, CHEM-306 Organic Chemistry I, II 4 Credits each F, S

Structure, nomenclature, reaction mechanisms, synthesis and identification of organic molecules. Three hours of lecture and one four-hour lab per week.

Prerequisites for CHEM-305: CHEM-162 or permission of instructor

Prerequisites for CHEM-306: CHEM-305

Credit may not be received for both CHEM-250 and 305

CHEM-308 Organic Spectroscopy 1 Credit F

Study and interpretation of spectra as applied to organic chemistry. Infrared spectroscopy, proton and carbon nuclear magnetic resonance, ultraviolet spectroscopy and mass spectrometry. One hour of lecture and lab per week.

Prerequisites: permission of instructor

CHEM-310 Organic Chemistry II and Spectroscopy 5 Credits S

Continuation of organic chemistry started in CHEM-305, including a study of the interpretation of infrared spectroscopy, proton and carbon NMR, UV-visible spectroscopy and mass spectrometry. The lab is an introduction to chemical research that includes research methods and techniques through a series of experiments.

Prerequisites: CHEM-305

Credit may not be received for both CHEM-306 and CHEM-310, nor for CHEM-308 and CHEM-310

CHEM-315 Fundamentals of Biochemistry 3 Credits S

Brief survey of the fundamental principles of biochemistry, including the chemistry of aqueous solutions, proteins, carbohydrates, lipids and nucleic acids. Examines the chemical reactions and the regulation of major metabolic pathways.

Prerequisites: CHEM-250 or CHEM-306

Alternate years: offered 2014–2015

CHEM-320 Environmental Chemistry (Cross-listed as ENVR-320) 4 Credits S

The chemistry and quantitative aspects of environmentally important cycles (C, N, O, P, S) in the context of the atmosphere, hydrosphere and lithosphere. Major environmental issues are discussed such as acid rain, sewage treatment, ozone destruction, anthropogenic climate change, air pollution and eutrophication. Laboratories involve sampling, quantitative detection and data analysis. Three hours of lecture and one four-hour lab per week.

Prerequisites: CHEM-162

Credit may not be received for both CHEM-120 and CHEM-320

CHEM-360 Advanced Organic Chemistry 3 Credits F

Molecular orbital theory, reaction kinetics and organic named reactions. Three hours of lecture per week.

Prerequisites: CHEM-306 or CHEM-310

Alternate years: offered 2015–2016

- CHEM-365 Computational Chemistry** 3 Credits S
 Designed to introduce students to the fundamental principles and techniques of computational chemistry. Approaches to be discussed include molecular mechanics, molecular dynamics, and density functional theory, among others. Discussion will focus on supporting, not replacing, the work of traditional synthetic chemists, and particular attention will be paid to the strengths/limitations of each technique for one or more specific purposes. Students will learn to model molecular systems and to critically analyze a potential energy surface, identifying local and global minima and the transition states between them. The application of these tools in ligand design and drug discovery will be a key component.
Prerequisites: CHEM-306 or CHEM-310
Alternate years: offered 2015–2016
- CHEM-370 Advanced Inorganic Chemistry** 4 Credits S
 Introduction to the principles of inorganic structure and bonding, including molecular symmetry, coordination complexes, magnetic properties, catalysis and bioinorganic chemistry. Three hours of lecture and one four-hour lab per week.
Prerequisites: CHEM-306 or CHEM-310
Alternate years: offered 2014–2015
- CHEM-380 Instrumental Analysis** (Cross-listed as ENVR-380) 4 Credits F
 Exposure to methods of quantitation, signal-to-noise enhancement, instrumental design and function, methods of spectroscopy, chromatography, electroanalytical analysis and mass spectrometry. Three hours of lecture and one four-hour lab per week.
Prerequisites: CHEM-250 or CHEM-305
Alternate years: offered 2014–2015
- CHEM-405 Biochemistry** (Cross-listed as BIOL-405) 4 Credits S
 Introduction to protein structure, enzymes and kinetics, along with a survey of the metabolism of carbohydrates, proteins, lipids and nucleic acids. Three lectures and one lab per week.
Prerequisites: BIOL-325 and CHEM-306 or CHEM-310 or concurrent enrollment in CHEM-306 with permission of instructor
Alternate years: offered 2015–2016
- CHEM-415 Physical Chemistry for the Life Sciences** 3 Credits F
 Thermodynamics, equilibrium, chemical structures and reaction rates as applied to biological systems and macromolecules. Three hours of lecture per week.
Prerequisites: CHEM-306 or CHEM-310 and MATH-130 or MATH-131, or permission of instructor
Alternate years: offered 2015–2016
- CHEM-425 Physical Chemistry of Solutions** 3 Credits S
 Physical states of solution systems—thermodynamics, equilibria, reaction rates, electrochemistry and photochemistry. Three hours of lecture per week.
Prerequisites: CHEM-415, MATH-132 and PHYS-222, or permission of instructor
Alternate years: offered 2015–2016
Credit may not be received for both CHEM-425 and CHEM-427
- CHEM-427 Physical Chemistry of Solutions with Laboratory** 4 Credits S
 Physical states of solution systems—thermodynamics, equilibria, reaction rates, electrochemistry and photochemistry—with lab examination of reactions in multicomponent systems. Three hours of lecture and four hours of lab work per week.
Prerequisites: CHEM-415, MATH-132 and PHYS-222, or permission of instructor
Alternate years: offered 2015–2016
Credit may not be received for both CHEM-425 and CHEM-427
- CHEM-435 Advanced Physical Chemistry** 3 Credits F
 Atomic structure and chemical bonding, based on applications of Schroedinger's Equation to structures of

chemical interest. Three hours of lecture per week.

Prerequisites: CHEM-425 or CHEM-427 or permission of instructor

Alternate years: offered 2014–2015

CHEM-450 Special Topics

3 Credits F, S

Devoted to a subject taken from a field of chemistry not otherwise covered in the curriculum. If a different topic is offered, the course may be repeated for credit.

Prerequisites: permission of instructor

CHEM-451, CHEM-452 Advanced Chemical Techniques I, II

2 Credits each F, S

Year-long project in collaboration with a member of the chemistry faculty. One hour lecture and a minimum of eight hours of lab per week.

Prerequisites: senior standing or permission of department

Prerequisites for CHEM-452: CHEM-451

CHEM-461 Independent Laboratory Research

1 Credit

Open-ended laboratory research project with a member of the chemistry faculty. A minimum of five hours of lab work per week.

Prerequisites: permission of instructor

May be repeated as necessary for credit

CHEM-462 Independent Laboratory Research

2 Credits

Open-ended laboratory research project with a member of the chemistry faculty. A minimum of 10 hours of lab work per week.

Prerequisites: permission of instructor

May be repeated as necessary for credit

CHEM-480 Internship

3 Credits F, I, S

CHEM-490 Independent Study

3 Credits F, I, S

CHEM-491 Research

3 Credits F, I, S

CHEM-499 Honors Project

3 Credits F, I, S

Related Course: Geology

GEOL-130 Physical Geology

4 Credits F, S

Overview of the history of the earth and its structure, earth materials, the rock cycle, internal processes (the tectonic cycle, volcanoes and earthquakes), external processes (the hydrologic cycle, weathering and soils), and environmental concerns (groundwater, surface water, pollution and remediation) with fairly detailed coverage of the processes. Three hours of lecture and one two-hour lab per week. Field trips may be taken during lab.

Corequisites: MATH-110, MATH-115 or MATH-118

General education: natural and physical sciences

COMMUNICATION STUDIES

MAJORS

Communication Studies

MINORS

Communication Studies

Theatre

The communication studies major focuses on ways in which ever-changing technological advances are impacting communication practices. The program provides a strong theoretical understanding of communication processes in a technology-based culture, including practical training that will allow students to become effective media practitioners. Courses examine both practical and theoretical approaches to the study of communication such as historical developments, policy implications, the influence of mass media and communication technologies, interpersonal relationships, and connections between communication and power relationships.

Students will learn how the methods of social science help us adapt messages across a variety of rhetorical situations. Communication courses are taught in an interactive manner combining lectures, discussion, in-class activities and hands-on experience. Students conduct theoretical and field research, write various types of academic and professional papers, design public relations campaigns, create blogs and deliver public presentations. In addition to working on their own, students in communication courses work in collaboration with other students gaining valuable teamwork skills.

Students majoring in communication studies are prepared for careers in a diverse group of occupations, such as public relations, advertising, sales, management, journalism and human resources. The major also helps prepare students for graduate studies.

COMMUNICATION STUDIES MAJOR

Consists of a minimum of 48 credit hours:

Required Courses

21 credit hours consisting of the following courses:

COMM-230	Communication Technologies: History, Culture and Society
COMM-240	Contemporary Media Industries
COMM/ENG-255W	Multimedia Information Production
COMM-327	Interpersonal Communication
COMM-347	Strategic Public Relations
COMM-350	Research Methods
COMM-400	Applying Communication Theory

Academic Citizenship Courses

Choose one of the following (3 credits):

COMM-315	Persuasion
COMM-325	Communication in the Organization
COMM-410	Communication Law and Ethics in a Digital Age
COMM-420	Political Campaigning in Virtual Environments

Advanced Public Speaking/Performance Courses

Choose one of the following (3 credits):

COMM-345	Argumentation and Debate
THEA-320	Improvisation
THEA-325	Acting
THEA-355	Environmental Theatre

Visual Design Courses

Choose one of the following (3 credits):

ART-120	Introduction to Visual Design
ART-121	Introduction to Digital Media
COMM-480	Internship (with visual design focus, must be approved by department)
COMM-490	Independent Study (with visual design focus, must be approved by department)
THEA-200	Theatre Production

Experiential Courses

Choose two of the following (6 credits):

COMM-131	News Practicum (Newspaper or Radio, 3-semesters total)
COMM-331X	The Television and Film Studio System
-or-	
COMM-333X	European-Media and Culture
-or-	
THEA-311	Theatre in London
COMM-349X	Non-Profit Communication
COMM-480	Internship
COMM-490	Independent Study (with department approval)

Additional Courses

An additional 12 credit hours are required from the following list of courses (only 6 credit hours may be taken from courses without the COMM prefix):

COMM	All courses designated COMM (except COMM-100)
ART-120	Introduction to Visual Design
ART-121	Introduction to Digital Media
ART-322	Web Theory and Design
ART-323	Graphic Design
ART-344	Photography—Digital Capture/Digital Darkroom
ART-347	Videography
ART-444	Advanced Photography – Digital Darkroom
ENG-310	Professional Writing
ENG-311	Creative Writing
ENG-312	Technical and Workplace Writing
ENG-318	Writing in Electronic Environments

COMMUNICATION STUDIES MINOR

Consists of a minimum of 18 credit hours.

Required courses (9 credits):

COMM-230	History of Communication Technologies
COMM-240	Contemporary Media Industries
COMM-327	Interpersonal Communication

Choose any other 3 courses with a COMM prefix (other than COMM-100)

THEATRE MINOR

Consists of 21 credit hours. The following courses are required:

THEA-200	Theatre Production
THEA-250	World Theatre History I
-or-	
THEA-255	World Theatre History II
THEA-310	Production Laboratory
-or-	
THEA-311	Production Laboratory
-or-	
THEA-312	Production Laboratory
THEA-325	Methods of Acting

An additional 9 credit hours must be chosen from the following courses:

THEA-250	World Theatre History I
-or-	
THEA-255	World Theatre History II
THEA-315	Theatre in London
THEA-320	Improvisation
ENG-330	Shakespeare
THEA-330	Directing
THEA-355	Environmental Theatre
THEA/ENG-360	Modern Drama
THEA/ENG-362	Contemporary Drama
THEA-480	Internship
THEA-490	Independent Study

ENDORSEMENT IN THEATRE ARTS (PREK-12)

Consists of the education course sequence required for secondary licensure and the following courses:

THEA-200	Theatre Production
THEA-250	World Theatre History I
THEA-255	World Theatre History II
THEA-325	Methods of Acting
THEA-330	Directing
THEA/ENG-360	Modern Drama
-or-	
THEA/ENG-362	Contemporary Drama

COURSES

COMM-100 Oral Communication

3 Credits F, S

Teaches students how to create and respond to verbal and nonverbal messages across a variety of rhetorical situations. Students will learn the core concepts of public speaking and develop the skills to select, organize, and deliver material based on the needs of a specific audience. The course will focus on informative and persuasive speaking, and may also include introductory speeches, special-occasion speeches, and business presentations.

General education: master core skill

COMM-131 News Practicum (Cross-listed as ENG-131)

1 Credit F, I, S

Skills-and-theory class that applies critical thinking to discuss and solve practical problems in news media production. Prepares students for the convergence of media, providing practical experience in multi-platform media writing and production including print, radio, TV and web journalism. Work includes approximately three hours outside the class and one hour inside each week. May be repeated for a total of 3 credit hours.

- COMM-141 Yearbook Practicum** (Cross-listed as ENG-141) 1 Credit F, S
 Teaches students the process of book production through active participation in all stages of producing *Ripples*, the college yearbook. Student work is contracted on an individual basis. May be repeated, but a maximum of 3 credit hours in COMM-141 will count towards graduation.
Prerequisites: permission of instructor
- COMM-201 Introduction to Communication Studies** 3 Credits F
 Introduces students to communication as an academic discipline by exploring how meaning is created and shared in multiple contexts. Topics covered include verbal and nonverbal communication, interpersonal communication, mass media, communication technologies, popular culture and communication in organizations.
- COMM-230 Communication Technologies: History, Culture, and Society** 3 Credits F, S
 An introduction to the history and influence of communication technology in society. The class will explore the various social, political, cultural, and economic impacts of new communication technology. Major topics include: the origins of writing, printing, photography, film, the telegraph and telephone, radio, television, and the Internet.
- COMM-240 Contemporary Media Industries** 3 Credits S
 Examines how electronic media industries have changed the way we produce and consume media products. The course will examine how the digital age has impacted notions of interactivity, virtual space, media production, networks and credibility. Particular attention will be paid to the social, economic and political implications of these changes.
- COMM-255W Multimedia Information Production** (Cross-listed as ENG-255W) 3 Credits F
 Teaches students the basic skills of researching, investigating and writing in a variety of formats. Emphasis on identification of the writing structures used by contemporary media writers, and utilization of these structures in original pieces researched and written by the students.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: writing intensive
- COMM-305 Multimedia Reporting and Writing** (Cross-listed as ENG-305) 3 Credits F
 Students will learn about media convergence, investigative news-gathering techniques, feature writing, photojournalism, video reporting, interactive digital media, and the role of journalism in today's society. Students are expected to conduct original investigative journalism, research, write and publish their work in a variety of media formats.
Prerequisites: COMM/ENG-255W
- COMM-306 Investigative Journalism and Documentary** 3 Credits F
 Students in this course will learn and apply investigative journalism and history research methodologies and techniques to produce long-form journalistic materials. This course will teach students how to identify, collect, analyze, reproduce, preserve and report on historical and difficult-to-access data and artifacts. Students will learn documentary production techniques and long-form journalism writing.
Prerequisites: COMM/ENG-255W
- COMM-315 Persuasion** 3 Credits S
 An introduction to major theories and key concepts of persuasion. Using both social science and rhetorical criticism students will learn how individuals, social movements and institutions create, adapt and respond to persuasive messages. Students will evaluate the effectiveness of persuasive appeals based on the rhetorical situation. Throughout the course students will consider the ethical implications of persuasive strategies and contexts.
- COMM-325 Communication in the Organization** 3 Credits S
 Study and application of communication theories and principles in an organizational context. An explanation of organizational communication theories and principles allows students to develop a theoretical and practical understanding of how communication affects the dynamics of the work environment. Emphasis on applying communication concepts to students' personal experience or participating in the

organizational environment.

Alternate years: offered 2014–2015

COMM-327 Interpersonal Communication 3 Credits S

Examines issues related to communication within personal and professional relationships. Students will develop theoretical and practical understandings of verbal and nonverbal communication, the role of technology in interpersonal communication and how interpersonal communication functions to develop, negotiate, maintain and terminate relationships.

COMM-330 American Film and Culture 3 Credits S

Critical examination of the history of film and its influence on society. Includes exploration of the various methods of studying film. Topics covered include the development of film messages, production systems, and the future of film. Special emphasis on the exploration of how film messages can perpetuate and influence our views of social groups marked by gender, race, class, sexuality and age.

Prerequisites: COMM-230 or permission of instructor

Alternate years: offered 2014–2015

COMM-331X The Television and Film Studio System 3 Credits I

The history of the American television and film studio system, its influence on society, and the processes of modern television and film production. Includes three days on the Bridgewater campus and a 14-day trip to Los Angeles. While in Los Angeles, the class tours several studios (including Paramount Pictures, Warner Brothers, NBC television and Universal Studios), participates as audience members on a variety of television shows, talks with members of the television and film industry, and visits several media-related museums. Additional costs associated with travel.

Prerequisites: PDP-150 or PDP-350 and permission of instructor

General education: experiential learning

COMM-332 American Television and Culture 3 Credits F

Critical examination of the history of television and its influence on society. Includes exploration of the various methods of studying television. Topics covered include the development of the television industry, various television genres and the future of television. Special emphasis on the exploration of how television messages influence our views of social groups marked by gender, race, class, sexuality and age.

Prerequisites: COMM-230 or permission of instructor

Alternate years: offered 2015–2016

COMM-333X European Media and Culture 3 Credits I

The historical similarities and differences between American media and European media. Involves approximately a week of classes on the Bridgewater campus prior to traveling to several locations throughout Europe. Explores the use of persuasion and propaganda techniques employed during World War II and the Cold War, the development of the European television and film industry before and after WWII, and issues of media conglomeration, globalization and the influence of the American film and television industry on Europe. Cities that may be toured include: London, Munich, Prague, Berlin and Paris (exact cities to be visited change each year). Additional costs associated with travel.

Prerequisites: PDP-150 or PDP-350

General education: world cultures and experiential learning

COMM-334 Intercultural Communication 3 Credits F,S

Theoretical and practical survey of intercultural communication processes. Examines intrapersonal, interpersonal, organizational, and mass media dimensions of intercultural communication. The course specifically focuses on the distinctive cultural behaviors, expectations, values and power dynamics that affect our abilities to communicate effectively and people from diverse cultures.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

Alternate years: offered 2015–2016

- COMM-335 Communicating Sex and Gender** 3 Credits F
 Students will develop theoretical and practical understandings of the role of sex and gender in verbal and nonverbal communication, friendships, families, romantic relationships and professional relationships. This course also examines the issues of technology, health, power and violence as they related to sex and gender.
- COMM-340 Representations of Gender, Race and Class in the Media** 3 Credits I
 Examines the media's role in creating and re-creating our understanding of gender, race and class. Includes a historical perspective, and traces how these representations have changed over time, the forces that have affected representations of gender, race and class, and the current state of their representation in the media. A field trip to at least one museum in Washington, D.C. is planned, depending upon exhibits available at the time (e.g., National Museum of the American Indian, American History Museum).
- COMM-345 Argumentation and Debate** 3 Credits F
 This course provides students with a foundational knowledge of classical principles of oral rhetoric and modern theories of the conventions of argumentation. Students will engage in critical examination of issues and the use of argumentation to support and defend a position. Upon completion of this course students will be able to construct and evaluate factual, value and policy claims.
Prerequisites: COMM-100
- COMM-347 Strategic Public Relations** 3 Credits F
 This course will cover strategic planning and specialized public relations issues. Issues include risks, crisis management, social marketing campaigns, and corporate and non-profit communication. Students will learn and apply advanced public relations theories and skills to case studies and real-life situations.
Prerequisites: COMM/ENG-255W
- COMM-349X Nonprofit Communication** 3 Credits I
 Introduces students to the burgeoning nonprofit sector of American society. Students learn what makes an organization a nonprofit, explore the purposes of a nonprofit sector in society, consider the often overlooked field of nonprofit media, and explore the challenges and opportunities of working in, with and for nonprofit organizations.
Prerequisites: PDP-150 or PDP-350 and COMM-100
General education: experiential learning
- COMM-350 Research Methods in Communication** 3 Credits F
 Introduces quantitative and qualitative research methods used in the study of communication. Students learn to critically evaluate published research studies and how to conduct original research. The course will provide specific instruction and practice in survey writing and interviewing.
Prerequisites: 6 credits in COMM (not including COMM-100)
- COMM-375 Media Effects** 3 Credits F
 Examines media effects research from the early 20th century to the present. Students learn about various methods used by social scientists to identify and measure the effects of persuasive messages on changes in knowledge, attitudes and behaviors. Students gain skills in framing research questions about media effects, designing effects studies and evaluating claims of media effects advocated by scholarly and non-scholarly sources.
Prerequisites: PDP-150 or PDP-350
General education: social sciences
- COMM-400 Applied Communication Theory** 3 Credits F, S
 This capstone course explores practical applications of communication theory. Emphasis will be placed on the process of writing and public speaking in multiple professional and personal rhetorical situations.
Prerequisites: COMM-350 and 9 additional credits in COMM (not including COMM-100)
- COMM-410 Communication Law and Ethics in a Digital Age** 3 Credits F
 Analytical survey of ethical and legal issues pertaining to communication professionals, focusing on the new digital media landscape. Issues explored include First Amendments rights, public affairs journalism, copyright, defamation, obscenity, censorship, licensing, corporate and governmental communications, and

the Digital Millennium Act.

COMM-420 Political Campaigning in Virtual Environments 3 Credits F

Introduces the range of communication practices that characterize contemporary political campaigns. Students will process existing understandings of political communication theory in order to design and implement a semester-long campaign project.

COMM-427 Communication in Romantic Relationships 3 Credits I

Examines issues and research related to communication in romantic relationships including serial arguments, conflict management, technology-mediated communication, power dynamics, and post-dissolutional communication. Particular emphasis will be placed on examining the utility of popular press relationship advice by comparing and contrasting with empirical research.

Alternate years: offered 2015–2016

COMM-447 Science, Environment, and Health Communication 3 Credits I

Examines the role of news, advocacy, scientific analysis, decision and policy making, risk perception, and other factors in the communication of issues related to science, environment and health. Provides students with rich theoretical background, critical understanding, and practical skills to produce, investigate and critique communication processes related to the topics. Students in this course are required to conduct field work and original research, write and publish news, and analytical articles.

Alternate years: offered 2014–2015

COMM-480 Internship 3 Credits F, I, S

COMM-490 Independent Study 3 Credits F, I, S

COMM-491 Research 3 Credits F, I, S

COMM-499 Honors Project 3 Credits F, I, S

Theatre

THEA-200 Theatre Production 3 Credits F

Introduction to scenic construction, lighting production, prop making, costume design, make-up design and stage management. Explores the concepts, techniques, equipment and material necessary for successful theatrical production emphasizing problem solving through research, experimentation and collaboration. Students are challenged to engage and understand the interrelationship between technical stagecraft and other aspects of dramatic art. Previous experience with theatre is not necessary.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

THEA-225 Scenic Painting 3 Credits I

Practical study of the various theories, techniques and materials used in scenic painting. Focusing on theory and practice, encompasses a systematic approach to painting theatrical scenery. Emphasis on traditional scene painting techniques, including material selection (brushes and paints) and their practical application through design reproductions and faux finishes, as well as the tools and paints that have been developed to support those techniques. Students learn how the theories and techniques of scenic painting have changed historically, and how these unique changes have impacted the materials and techniques utilized by the scenic painter. Engages with the unique qualities of different types of paint noting how they perform on different types of materials, and how that knowledge can be used to create effective results. Projects include painting stage drops, creating stained glass windows with paint, faux marble and wood grain finishes, photos and designer renderings.

THEA-250 World Theatre History I 3 Credits F

Traces the development of dramatic art and the history of theatrical production from its ritual beginnings to the English Restoration. Places dramatic art and theatre history in context by engaging with the social, political and cultural conditions of specific historical moments. Topics of study include Greek drama, Roman spectacle, Sanskrit drama, Noh drama, early medieval religious and secular theatre, Italian commedia

dell'arte, Renaissance and Baroque pageantry, and the English Restoration. The approach is a documentary one. Students read specific play texts in conjunction with primary evidence, both textual and pictorial, using both to illuminate the creation and history of theatre.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

Alternate years: offered 2014–2015

THEA-255 World Theatre History II

3 Credits S

Survey of post-Restoration theatrical culture, history and production forms. Though it is a continuation of the THEA-250, the student need not have taken the previous course. Examines theatrical history and expression in Turkey, China and Japan, and moves across the European continent to focus on the rise of European modernity. Covers Romantic theatre and opera, melodrama and poetic spectacle, Realism, Naturalism and the independent theatre movement as well as the innovation of early 20th century theatrical practitioners. The approach is a documentary one. Students read specific play texts in conjunction with primary evidence, textual and pictorial, using both to illuminate the creation and history of theatre.

Corequisites: PDP-150 or PDP-350 and ENG-110

General education: fine arts and music

Alternate years: offered 2014–2015

THEA-310 Production Laboratory: Acting

3 Credits F, S

Production laboratory requiring intense involvement with the process of translating a play text from script to performance. Requires students to work independently and as an ensemble interpreting, rehearsing and performing a play. Those enrolled are expected to rehearse five to six nights per week for eight weeks exhibiting a commitment to their peers and the production. Each student is required to keep a journal of their process of character creation, as well as submit a significant final paper that analyzes the entire production as well as their own participation. Significant in-class and out-of-class work is essential.

Prerequisites: by audition

THEA-311 Production Laboratory: Design

3 Credits F, S

Production laboratory requiring intense involvement with the process of translating a play text from script to performance. Students work independently under faculty supervision interpreting and realizing theatrical design specific to their area of interest such as set design, light design, costume design and property design. Students are responsible for submitting such work as light plots, ground plans, rendering (lighting, set, costume), drawings and/or sketches, models and production workbooks. Furthermore, students realize their ideas on stage, whether through light, set, costume or prop construction. Students are required to attend weekly production meetings in addition to selected rehearsals. Professionalism and dedication to theatrical production are stressed. Each student is required to submit a significant final paper that analyzes the entire production as well as their own participation. Significant in-class and out-of-class work is essential.

Prerequisites: permission of instructor

THEA-312 Production Laboratory: Stage Management, Directing, Dramaturgy

3 Credits F, S

Production laboratory requiring intense involvement with the process of translating a play text from script to performance. Students work independently under faculty supervision. Stage management and directing students are required to attend rehearsals, provide a detailed dramaturgical analysis of the production including production histories, submit a dramaturgical note for the program, organize and moderate post-performance talk-backs with the cast, crew and audience, as well as submit a significant paper analyzing the production and their participation. Professionalism and dedication to theatrical production are stressed. Significant in-class and out-of-class work is essential.

Prerequisites: permission of instructor

THEA-315 Theatre in London

3 Credits I

Exploration of the rich and varied theatrical scenes in London through nightly attendance at professional and nonprofessional productions. The group attends professional West End classical, modern and musical productions. A music hall performance and holiday pantomime, as well as lively nonprofessional theatre in the London suburbs, are on the itinerary. Daytime backstage tours and visits to the Theatre Museum and

other locations of theatrical, historical and cultural interests complement the experience, as do side-trips to Stratford-upon-Avon and Oxford.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

Offered on demand

THEA-320 Improvisation

3 Credits F

Invention and structured improvisation as tools to explore 'being in the moment'—both on- and off-stage. Focusing on the body and voice through theatre games, creative dramatics, role-playing, storytelling, clowning, autobiographical performance and movement, improvisation skills are approached from two perspectives: concentration and action. Through responding to each other's playfulness, ingenuity and creativity, students are encouraged to break through set thinking and movement patterns that may have limited them in the past. This class is not just for the theatre student! While the work is grounded in theatre, it can be applied to any discipline.

Alternate years: offered 2015–2016

THEA-325 Methods of Acting

3 Credits S

Provides the student with an organized and practical approach to the creation of real, truthful behavior within the imaginary circumstances of the theatre. Focuses on the fundamentals of acting, and experiments with specific training exercises from a variety of 20th century theatre practitioners (Konstantin, Stanislavsky, Bertolt Brecht, Augusto Boal, Jerzy Grotowski and others). Scene work, monologues, solo performance and ensemble work are examined.

Alternate years: offered 2015–2016

THEA-330 Directing

3 Credits S

Introduces the basic fundamentals of directing plays for the stage. Careful examination of play structure and analysis, communication with the actor and designer, and rehearsal process and performance. Explores the work of the director through laboratory exercise, and short performance piece where students cast and direct their own scenes. Examining the techniques of many of the most influential 20th century stage directors, students work towards a technique that the student can call his or her own. Practical work is combined with written analysis in addition to the final short student-director production.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

Alternate years: offered 2014–2015

THEA-355 Environmental Theatre

3 Credits I

Environmental theatre began in the 1960s in response to the social and political climate of the time. Performers and performance groups pushed the boundaries of what was traditionally thought of as theatre, and as a result, restructured and reinvigorated the fundamental understanding of what performance was and its function within society. Introduces the student to the cultural, social and political richness of environmental theatre, including site-specific performance; provides a historical understanding of the period by highlighting how the original practitioners and their works were directly influenced by cultural events of the time; and involves the student in the process of creating and performing their own individual and group site-specific environmental performance piece.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

THEA-360 Modern Drama (Cross-listed as ENG-360)

3 Credits F

Examination of theatrical literature and forms from the late 19th century well-made plays, Realism, Expressionism, Futurism and Symbolism, to Epic theatre and the Theatre of the Absurd. Playwrights such as Henrik Ibsen, Bernard Shaw, Anton Chekhov, Eugene O'Neill, Bertolt Brecht and Samuel Beckett are studied. Students gain an understanding of the scope, history, techniques and influence of modern drama.

Prerequisites: ENG-110

General education: literature

Alternate years: offered 2015–2016

THEA-362 Contemporary Drama (Cross-listed as ENG-362) 3 Credits S

Contemporary theatrical forms of American and British drama. Begins with post-World War II dramatic works and moves sequentially to the present day. Areas of attention include the “angry young men,” metadrama, gender, race and ethnicity, the “new brutalism,” and contemporary docudrama. Particular focus on how play texts engage with the cultural and historical moment of their creation. Provides an understanding of the scope, history, techniques and influence of contemporary drama. Playwrights such as John Osborne, Edward Albee, Edward Bond, José Rivera, Martin McDonagh, Tony Kushner, Sarah Kane, Suzan Lori-Parks, Nilo Cruz, Moisés Kaufman and Sarah Ruhl are studied.

Prerequisites: ENG-110

General education: literature

Alternate years: offered 2015–2016

THEA-480 Internship 3 Credits F, I, S

THEA-490 Independent Study 3 Credits F, I, S

THEA-491 Research 3 Credits F, I, S

THEA-499 Honors Project 3 Credits F, I, S

GEORGE S. ALDHIZER II DEPARTMENT OF ECONOMICS & BUSINESS ADMINISTRATION

MAJORS

Business Administration
Economics

MINORS

Business Administration
Economics

EMPHASES

Accounting
Finance
Financial Economics
International Commerce
Marketing
Organization Management

The George S. Aldhizer II Department of Economics and Business Administration offers two majors—economics and business administration—that prepare students to pursue managerial and other professional careers as well as graduate education. We strive to build on the liberal arts foundation provided by the College's general education program and aim to give each student the knowledge, skills and practice to become a successful and ethical leader, capable of making valued contributions to his or her workplace, society and self.

Through a combination of lectures, discussions, case analyses, team projects and presentations, and other in-class activities, courses are designed to integrate economic and business theory and practice; encourage independent and critical thinking using both qualitative and quantitative reasoning; and develop skills in decision making and implementation, teamwork and collaboration, and all forms of communication. Experiential learning opportunities abound through internships, study abroad programs and participation in student organizations, to supplement classroom learning.

The economics major consists of 14 courses in economics and mathematics. Economics majors may choose among three tracks: business, government policy and preparation for graduate school via additional mathematics courses. Economics majors can also earn an emphasis in financial economics.

The business administration major consists of 15 courses in business, economics and mathematics. To gain greater depth in a particular area of business, many students pursue one of the five emphases we offer in the business administration major: accounting, finance, international commerce, marketing and organization management. By taking additional courses, in one of these areas, students build specialization on the solid foundation provided by the business administration major.

ECONOMICS MAJOR

Consists of 42 credit hours (14 three-credit courses), comprised of 27 credits from the following nine required courses:

MATH-140	Introduction to Statistics
ECON-200	Principles of Macroeconomics
ECON-210	Principles of Microeconomics
ECON-300	Money and Banking
ECON-330	Government and Business
ECON-400	Intermediate Macroeconomic Theory
ECON-410	Intermediate Microeconomic Theory
ECON-440	International Economics
ECON-460	Senior Seminar in Economics

Plus 15 additional credits in ECON courses numbered 300 or above, or 9 additional credits in ECON course numbered 300 or above and one of the following tracks:

Business Track

Consists of 6 credit hours (2 three-credit courses), selected from:

BUS-201	Principles of Accounting I
BUS-202	Principles of Accounting II
BUS-300	Principles of Organization Management

Government Policy Track

Consists of 6 credit hours (2 three-credit courses), selected from:

PSCI-210	Politics and Government in the United States
PSCI-230	Introduction to Global Politics
PSCI-420W	International Law and Organization

Graduate School Preparation Track

Consists of 6 credit hours (2 three-credit courses):

MATH-131	Calculus I
MATH-132	Calculus II

Students who choose this option should consider taking additional courses beyond MATH-132 as well.

ECONOMICS MINOR

Consists of 24 credit hours (8 three-credit courses):

MATH-140	Introduction to Statistics
ECON-200	Principles of Macroeconomics
ECON-210	Principles of Microeconomics
ECON-400	Intermediate Macroeconomic Theory
ECON-410	Intermediate Microeconomic Theory

Plus 9 additional credits in ECON courses numbered 300 or above

Credits for ECON-480, ECON-490, ECON-491 and ECON-499 may not be applied to the requirements for either the major or minor in economics.

FINANCIAL ECONOMICS EMPHASIS

Consists of 18 credit hours. Majors in economics can acquire additional depth in finance by pursuing the emphasis in financial economics. 6 credits from the emphasis may be applied to the requirements for the economics major. The capstone course is shown in italics.

BUS-201	Principles of Accounting I
BUS-202	Principles of Accounting II

BUS-320	Principles of Finance
BUS-371	Intermediate Accounting I
BUS-430	Investments
BUS-448	<i>Financial Statement Analysis</i>

Students choosing to double major in economics and business administration may not earn both the financial economics emphasis in economics and the finance emphasis in business administration.

BUSINESS ADMINISTRATION MAJOR

Consists of 45 credit hours (15 three-credit courses), comprised of the following 13 required courses:

BUS-120	Survey of Business
MATH-140	Introduction to Statistics
ECON-200	Principles of Macroeconomics
ECON-210	Principles of Microeconomics
BUS-201	Principles of Accounting I
BUS-202	Principles of Accounting II
BUS-300	Principles of Organization Management
BUS-310	Principles of Marketing
BUS-320	Principles of Finance
BUS-330	Principles of Information Systems
BUS-340	Management Science
BUS-350	Business Law
BUS-422X	Entrepreneurship
-or-	
BUS-478	Strategic Management

Plus 6 additional credit hours in ECON or BUS courses numbered 300 or above

BUSINESS ADMINISTRATION MINOR

Consists of 24 credit hours (8 three-credit courses):

BUS-120	Survey of Business
ECON-200	Principles of Macroeconomics
ECON-210	Principles of Microeconomics
BUS-201	Principles of Accounting I
BUS-202	Principles of Accounting II
BUS-300	Principles of Organization Management
BUS-310	Principles of Marketing

Plus 3 additional credit hours in ECON or BUS courses numbered 300 or above

Credits for BUS or ECON-480, ECON-490, ECON-491 and ECON-499 may not be applied to the requirements for either the major or minor in business administration.

BUSINESS ADMINISTRATION AREAS OF EMPHASIS

Majors in business administration are encouraged to acquire additional depth by pursuing one or more emphases within the major. 6 credits from the emphasis may be applied to the requirements for the major in business administration. The capstone course for each emphasis is shown in italics.

Accounting Emphasis

Consists of 18 credit hours, comprised of the following courses:

BUS-371	Intermediate Accounting I
BUS-372	Intermediate Accounting II
BUS-381	Federal Tax Accounting I

BUS-385	Cost Accounting
BUS-400	Advanced Accounting
BUS-405	Auditing

Majors pursuing careers in public accounting—To sit for the Certified Public Accountant (CPA) exam in Virginia, the Virginia Board of Accountancy requires candidates to accumulate these minimums:

120 credit hours in a baccalaureate degree that includes:

- 30 credit hours of accounting courses, and
- 24 credit hours of (non-accounting) business courses.

To comply with Virginia Board of Accountancy eligibility rules, students should supplement the accounting emphasis with at least two of the following courses:

BUS-370	Forensic and Investigative Accounting
BUS-382	Federal Tax Accounting II
BUS-448	Financial Statement Analysis

To become a licensed CPA in Virginia, the Virginia Board of Accountancy requires candidates to complete 150 credit hours of education plus the full-time equivalent of one year of relevant accounting experience.

CPA licensing requirements vary by state. If you plan to pursue CPA licensure outside Virginia, please visit that state's Board of Accountancy website for that state's requirements.

Finance Emphasis

Consists of 18 credit hours, comprised of the following courses:

ECON-300	Money and Banking
ECON-440	International Economics
BUS-371	Intermediate Accounting I
BUS-372	Intermediate Accounting II
BUS-430	Investments
BUS-448	<i>Financial Statement Analysis</i>

International Commerce Emphasis

Consists of 18 credit hours, comprised of the following courses:

ECON-330	Government and Business
ECON-440	International Economics
PSCI-230	Introduction to Global Politics
BUS-468	<i>Contemporary Issues in Business</i>

Plus 6 credits from two of the following electives:

BUS-365X	Cross-Cultural Issues in Business
FREN-202	Intermediate French
FREN-340	French Culture and Civilization
GER-202	Intermediate German
HIST-356	East Asia
SPAN-202	Intermediate Spanish
SPAN-345	Latin American Culture and Civilization
SOC-363	Cultures of Japan
SOC-365	Cultures of Africa
SOC-361	Development and Underdevelopment in the Modern World

A world languages and cultures minor and participation in a one-semester cross-cultural experience are recommended. Students participating in a College-approved study abroad program or a similar approved international experience may apply that activity in place of the 6 elective credits required above.

Marketing Emphasis

Consists of 18 credit hours, comprised of the following courses:

BUS-315	Marketing Research
BUS-412	Professional Selling
-or-	
COMM-315	Persuasion
BUS-416	Advertising
BUS-468	<i>Contemporary Issues in Business</i>

Plus 6 credits from the following electives:

BUS-414	Consumer Behavior
COMM-347	Strategic Public Relations
ECON-410	Intermediate Microeconomic Theory
FCS-304	Fashion Merchandising
FCS-306	Fashion Promotion

Organization Management Emphasis

Consists of 21 credit hours, comprised of the following courses:

BUS-420	Human Resource Management
BUS-468	Contemporary Issues in Business
PHIL-320E	Professional Ethics

Plus 12 credit hours chosen from the following two categories:

3 or 6 credit hours from:

ECON-310	U.S. Economic and Business History
ECON-320	Labor Economics
ECON-330	Government and Business
ECON-440	International Economics

6 or 9 credit hours from:

BUS-305X	Entrepreneurial Revolution in the 21st Century
BUS-365X	Cross-Cultural Issues in Business
BUS-422X	Entrepreneurship (if not taken as the major capstone course)
BUS-478	Strategic Management (if not taken as the major capstone course)
COMM-315	Persuasion
COMM-347	Strategic Public Relations
ES-356	Management Concepts in Health Care

Business administration majors interested in preparing for an information technology career are encouraged to earn a minor in computer information systems or a second major in information systems management. These programs are offered in the department of mathematics and computer science.

Non-business majors who want a basic three-course introduction to business to complement their majors are encouraged to take the following three-credit courses:

BUS-120	Survey of Business
BUS-200	Show Me the Money: Figuring Your Small Business
BUS-310	Principles of Marketing

COURSES

Economics

ECON-200 Principles of Macroeconomics

3 Credits F, S

Introduces scarcity, opportunity cost, and supply and demand analysis, with special emphasis on aggregate

economic growth, unemployment, inflation, and fiscal and monetary policies.

Prerequisites: PDP-150 or PDP-350

General education: social sciences

ECON-210 Principles of Microeconomics

3 Credits F, S

Analysis of individual choice and market behavior, with special emphasis on price and output relationships and the economics of the firm.

Prerequisites: PDP-150 or PDP-350

General education: social sciences

ECON-300 Money and Banking

3 Credits F

Focuses on the financial system, determinants of interest rates, structure and regulation of the banking system, the Federal Reserve System, and monetary policy and its impact on aggregate economic activity and inflation.

Prerequisites: ECON-200

ECON-305 Contemporary Economic Issues

3 Credits I

Discussion of contemporary economic issues from conservative, liberal and radical perspectives. Topics include both macroeconomic and microeconomic issues.

Prerequisites: ECON-200 or ECON-210

ECON-310 U.S. Economic and Business History

3 Credits S

Traces the growth and development of the U.S. economy and institutions, including changes in international trade/relations, transportation, banking and finance, labor markets, structure and conduct of business, and the role of government, from the Colonial era to the present. Key institutions and events, such as slavery, the Civil War, and the Great Depression are explored. The course will particularly emphasize the role immigration has played in creating cultural differences within the United States and the role the U.S. has played in the world during the post-WWII period.

Prerequisites: ECON-200 or ECON-210

General education: global dynamics

ECON-320 Labor Economics

3 Credits F

Analysis of labor market supply and demand, wages and salaries, collective bargaining, discrimination, and macroeconomic implications of labor market issues.

Prerequisites: ECON-200 or ECON-210

ECON-325 Economics of Sports

3 Credits I

Analyzes issues in professional and college team sports, including team revenues and costs; labor markets, salary determination, and labor relations; government subsidies; sports leagues, the National Collegiate Athletic Association, and antitrust laws; and the valuation and profitability of sports franchises.

Prerequisites: ECON-200 or ECON-210

ECON-327 Economics and the Environment

3 Credits I

Examines the economic causes and consequences of environmental problems and evaluates market-based and nonmarket solutions for them, with special emphasis on pollution, overpopulation, resource depletion and sustainability.

Prerequisites: ECON-200 or ECON-210

ECON-330 Government and Business

3 Credits S

Discussion of the role of government and market forces in promoting economic efficiency, focusing on antitrust policy, economic regulation and socio-economic engineering.

Prerequisites: ECON-200 or ECON-210

ECON-400 Intermediate Macroeconomic Theory

3 Credits F

Analyzes economic growth, business cycles, and the impact of economic institutions and policies on aggregate economic performance and living standards.

Prerequisites: ECON-200

Alternate years: offered 2014–2015

ECON-410 Intermediate Microeconomic Theory	3 Credits	F
Theoretical and applied development of consumer choice, firm behavior, price and income determination, market behavior and government policy. <i>Prerequisites: ECON-210</i>		
ECON-420 Development of Economic Thought	3 Credits	I
Traces the evolution of economic thought from ancient times to the present with special emphasis on Adam Smith, the classical school, socialism, Marx, marginalism, the neoclassical school, Keynes and Friedman. <i>Prerequisites: ECON-200 or ECON-210</i> <i>General education: philosophy or religion</i> <i>Alternate years: offered 2015–2016</i>		
ECON-440 International Economics	3 Credits	S
Theory of international economic interrelationships, including trade, finance and monetary policies and institutions. <i>Prerequisites: ECON-200 or ECON-210</i> <i>General education: global dynamics</i>		
ECON-460 Senior Seminar	3 Credits	F
Capstone course for majors in economics. Investigates selected economic issues, policies and problems, and introduces regression methods used to test economic hypotheses. Students conduct quantitative research, collect data, formulate and test hypotheses and present their results. <i>Prerequisites: ECON-400 and ECON-410 and senior standing, or permission of instructor</i>		
ECON-480 Internship	3 Credits	F, I, S
ECON-490 Independent Study	3 Credits	F, I, S
ECON-491 Research	3 Credits	F, I, S
ECON-499 Honors Project	3 Credits	F, I, S

Business

BUS-105 People, Planet, Profit: Exploring Sustainability in Organizations	3 Credits	I
Exploratory course in three dimensions of sustainable organizations: people, planet and profit. Emphasizes sustainability of an organization's social, environmental and economic impacts, exploring these both individually and altogether. Additional cost associated with travel.		
BUS-110 Personal Finance	3 Credits	I
How to manage personal income and wealth through personal financial, tax, retirement and estate planning, personal budgeting, banking alternatives, consumer credit, insurance, home buying and investments.		
BUS-115 History of Advertising	3 Credits	I
Exploration of the role of advertising in business and other organizations and its impact on societal values, politics and other aspects of everyday life. Topics include the development of the middle class and the rise of mass consumption; changing gender roles in the family and workplace; consumerism; government regulation of business; and ethical concerns about business and advertising practices.		
BUS-120 Survey of Business	3 Credits	F, S
Introduces a variety of business principles and practices as a foundation for students majoring in business administration and for non-business majors interested in acquiring basic understanding of the business world. Addresses aspects of leadership and personal assessment and development through a semester-long business plan project, helping students to assess their interest in and aptitude for various business disciplines.		
BUS-200 Show Me the Money: Figuring Your Small Business	3 Credits	I
Introduces the basic financial concepts and tools needed to run a business "by the numbers," focusing on using		

financial reports to analyze business activity, monitor financial performance and budget for upcoming plans.
Credit may not be received for both BUS-200 and BUS-201

BUS-201 Principles of Accounting I 3 Credits F, S

Accounting for sole proprietorships and corporations, accounting records, processing accounting information and financial statement content.

BUS-202 Principles of Accounting II 3 Credits F, S

Accounting for partnerships, time-value of money applications, cash flows, budgeting, cost determination, responsibility accounting and decision-driven financial information.

Prerequisites: BUS-201

BUS-205 Business Practicum 1 Credit F, S

Skills-and-theory based class that helps students apply critical thinking to make a difference in their community and the world by developing projects that impact the lives of others. Students are given a chance to develop leadership, organizational, communication and teamwork skills, while also enhancing project management and creative skills. Work includes a minimum of three hours outside the class and one hour inside each week. Course may be repeated for a total of 3 credits.

Prerequisites: permission of instructor

BUS-300 Principles of Organization Management 3 Credits F, S

General overview of the principles of planning, organizing, leading and controlling human and other resources for the achievement of an organization's goals. Examines the impact and role of communication, motivation, group dynamics, and organization culture, conflict and change as the context for current management practices. Uses written and oral reports to develop student writing and speaking skills.

Prerequisites: BUS-120, ENG-110, or permission of instructor

BUS-305X Entrepreneurial Revolution in the 21st Century 3 Credits I, S

Examines the importance of fostering entrepreneurship as the key to economic, social and intellectual development in a myriad of cultural settings and economic/political systems around the globe.

Prerequisites: COMM-100 and two courses from ECON-200, ECON-210, PSY-101 and SOC-101

General education: experiential learning

BUS-310 Principles of Marketing 3 Credits F, S

Explores the principles and practices of how goods, services and ideas are developed and distributed in order to satisfy individual and organization needs, wants and objectives. Emphasis is placed on micro-marketing perspectives including product, price, promotion and place.

Prerequisites: BUS-120 and COMM-100, or permission of instructor; ECON-210 recommended but not required

BUS-315 Marketing Research 3 Credits F, S

Explores the scope of marketing research and its role in effective decision making. Students investigate, assess and conduct various types of quantitative and qualitative research, from surveys to focus groups.

Prerequisites: MATH-140, BUS-310, and junior or senior standing

BUS-320 Principles of Finance 3 Credits F, S

Theory and practice of managerial finance, including financial statement analysis, financial planning and control, working capital management, capital budgeting, capital acquisition, and capital cost analysis.

Prerequisites: BUS-202, ECON-200 and ECON-210, MATH-140

BUS-330 Principles of Information Systems 3 Credits F, S

Introduction to information system theory and application with special emphasis on information systems design in the functional areas of management, marketing, accounting and operations management.

Prerequisites: BUS-202 and BUS-300, MATH-140

Credit may not be received for both BUS-330 and CIS-250

BUS-340 Management Science 3 Credits F, S

Introduces essential quantitative techniques and their use in business decision-making, including decision

analysis, forecasting, linear programming, project scheduling, inventory cost minimization and queuing analysis. Emphasis on the practical application of these techniques to production and operations management and other business problems.

Prerequisites: BUS-300 and MATH-140 or permission of instructor

BUS-345 Supply Chain Management

3 Credits I

Examines supply chain management processes as they apply to both service and manufacturing organizations, with special consideration given to identifying ways in which the strategic use of supply chain management can create competitive advantages for firms. Topics covered include logistics, inventory management, sales and operations planning, sourcing and purchasing processes, materials planning, TQM, JIT, lean processes and technology-enhanced supply chain processes. Requires travel throughout the Shenandoah Valley to participate in plant tours and other field experiences. Additional cost associated with travel.

Prerequisites: BUS-330 and BUS-340, and junior or senior standing, or permission of instructor

BUS-350 Business Law

3 Credits F, S

The U.S. legal and regulatory environment, including the sources of law; the resolution of disputes; the Uniform Commercial Code; the laws of torts, contracts, agency, partnerships, corporations, employment and equal opportunity; and laws regulating competition.

Prerequisites: BUS-120, ENG-110, and junior or senior standing

BUS-360 Venture Creation

3 Credits F

This course is a dynamic learning and business development experience focused on the professional development of young entrepreneurs. Students will develop their own creative ideas, and use the rigorous lean startup protocol to design a specific business model to launch and scale (theoretically for class purposes only, or in the real world). Emphasis is placed on the lean startup and customer development principles (e.g. innovative business models, scientific approach, hypothesis testing, rapid iteration, minimum viable product, problem-solution fit, customer discovery process and agile development).

Prerequisites: BUS-120 or permission of instructor; junior standing recommended

BUS-365X Cross-Cultural Issues in Business

3 Credits I

Explores cultural differences in business practices. Combines international travel and experiential learning with classroom discussion and reflection to enrich students' educational experience. The travel portion of the course provides opportunities for direct communication with business leaders in the selected location, facility tours and attending business lectures at local universities. Travel destinations include Europe, South America, Japan and China. On campus, students actively reflect on cross-cultural similarities and differences in the conduct of business, cross-cultural business issues, and ways to become more sensitive to the complexities, relationships and dialogues among different cultures. May be taken more than once provided a different location is selected each time.

Prerequisites: ENG-110 and permission of instructor

General education: experiential learning

BUS-370 Forensic and Investigative Accounting

3 Credits S

Introduction to the challenging field of forensic and investigative accounting. Topics include introduction to forensic and investigative accounting; forensic accounting education; institutions and specialties; fraudulent financial reporting; detecting fraud in financial reporting; employee fraud; methods of reconstructing income; money laundering; litigation services provided by accountants; proper evidence management; computing economic damages; computer forensics; profiling the cybercriminal; cybercrime management; cybercrime loss valuations; and business valuations.

Prerequisites: BUS-202

Alternate years: offered 2014–2015

BUS-371, BUS-372 Intermediate Accounting I, II

3 Credits each F, S

A two-course examination of financial accounting issues. BUS-371 focuses on accounting theory, FASB's conceptual framework, GAAP and IFRS presentations for financial statements. BUS-372 examines time-value of money applications, liabilities, leases, pensions and post-retirement obligations, stockholders' equity, earnings per share, accounting changes, correcting accounting errors and comprehensive statements

of cash flows.

Prerequisites for BUS-371: BUS-202

Prerequisites for BUS-372: BUS-371

BUS-381 Federal Tax Accounting I

3 Credits F

Introduction to the federal tax structure, emphasizing accounting for personal income taxes, including preparation of individual income tax returns. Highlights working with tax law, determining personal and dependency exemptions, gross income, deductions, losses, depreciation and tax credits.

Prerequisites: BUS-202

Alternate years: offered 2014–2015

BUS-382 Federal Tax Accounting II

3 Credits S

Emphasizes accounting for preparing corporate, partnership, gift, estate and trust returns. Focuses on corporate operating rules, organization, capital structure, distributions, S Corporation limitations, exempt entities, and tax administration and practice.

Prerequisites: BUS-202

Alternate years: offered 2015–2016

BUS-385 Cost Accounting

3 Credits F

Preparation and utilization of financial information for internal management purposes with emphasis placed on cost behavior, cost determination and the development of information for planning and control purposes.

Prerequisites: BUS-202 and MATH-140

Alternate years: offered 2014–2015

BUS-400 Advanced Accounting

3 Credits S

Accounting for partnerships, business combinations, state and local governments, private not-for-profit organizations and other selected topics.

Prerequisites: BUS-372 or permission of instructor

BUS-405 Auditing

3 Credits S

Theory and practice of auditing: the techniques, standards, legal environment and ethics of the public accounting profession. Emphasis on the study of internal controls, and compliance and substantive tests of functional cycles within the firm, audit reports, accounting and review services, and other attestation services.

Prerequisites: BUS-372

BUS-412 Professional Selling

3 Credits S

Designed to develop student interaction and business skills with strategies relating to the personal selling side of marketing. Emphasis is placed on business-to-business and consumer selling strategies, as these skills are also applicable to retail selling and may be beneficial in enhancing skills necessary for selling ideas within the business, workplace, community at large or society in general.

Prerequisites: BUS-300 and BUS-310, or permission of instructor

BUS-414 Consumer Behavior

3 Credits F

A study of purchasing patterns and habits of consumers (individual and business) from both societal and psychological sides; increases student understanding of how businesses develop marketing plans to appeal to recognized consumer needs, wants and characteristics. Emphasis is placed on observations in the retail environment including cultural, societal and personal preferences.

Prerequisites: BUS-300 and BUS-310, or permission of instructor

BUS-416 Advertising

3 Credits F

A study of the wide varieties of non-personal ways an organization communicates with customers and other stakeholder groups. Primary emphasis is placed on traditional paid media. Internet and social media options are also reviewed, along with alternative advertising vehicles such as brochures, direct mail and point-of-sale contacts. Course content includes a review of the planning, design and production processes, as well as sample communications, as an essential part of the learning process.

Prerequisites: BUS-300 and BUS-310, or permission of instructor

- BUS-420 Human Resource Management** 3 Credits F, S
 Personnel administration from a managerial perspective including recruitment, training and development, performance appraisal, compensation and motivation, employee/management relations, and various legal and regulatory issues.
Prerequisites: BUS-300
- BUS-422X Entrepreneurship** 3 Credits S
 Emphasizes general principles of entrepreneurship and small business management for students interested in developing their own businesses. Provides practical experience through experiential learning and written and oral reports.
Prerequisites: COMM-100 and BUS-200 or BUS-202, BUS-300, BUS-310, and junior or senior standing
General education: experiential learning
- BUS-430 Investments** 3 Credits F
 Introduction to security selection and portfolio management in global financial markets, including the theoretical and practical aspects of asset allocation and stock and bond valuation.
Prerequisites: BUS-202 or permission of instructor
Alternate years: offered 2015–2016
- BUS-448 Financial Statement Analysis and Equity Valuation** 3 Credits S
 Explores analytical tools for effective analysis of operating and financial performance, making judgments about earnings quality and developing alternative approaches to valuation. Integrates concepts from introductory accounting, finance and economics to focus on effective analysis of financial statements. Students use analytical tools for assessing relative operating and financial performance, making judgments about earning quality, and developing alternative approaches to valuation.
Prerequisites: BUS-320
- BUS-468 Contemporary Issues in Business** 3 Credits S
 A senior seminar for the marketing, organization management and international commerce emphases designed to help students integrate knowledge from general education, major and emphasis courses with current professional issues. Focus placed on issues such as international marketing, employee relations and other cross-cultural concerns; effects of cross-country financial, legal, political, media and transportation variations; interpersonal vs. virtual work environments; e-commerce; professional ethics; adapting and strengthening corporate culture in dynamic environments; and integrating functional and geographic business strategies.
Prerequisites: senior standing in the business administration major or permission of instructor
- BUS-478 Strategic Management** 3 Credits F, S
 Seminar-style capstone course for business administration majors that integrates the functional areas of business (accounting, finance, management and marketing) through analysis, forecasting and developing solutions to complex business scenarios. Uses a combination of readings, discussion, case studies and a team-based computer simulation to focus on managing strategically and responsibly.
Prerequisites: BUS-300, BUS-310, BUS-320, BUS-330, BUS-340, BUS-350 and senior standing; or permission of instructor
- BUS-480 Internship** 3 Credits F, I, S
- BUS-490 Independent Study** 3 Credits F, I, S
- BUS-491 Research** 3 Credits F, I, S
- BUS-499 Honors Project** 3 Credits F, I, S

EDUCATION *and* TEACHER EDUCATION PROGRAM (TEP)

MAJORS

Liberal Studies (PreK–6)

TEACHER CERTIFICATION

Elementary (PreK–6)

Secondary (6–12)

Designated Disciplines (PreK–12)

Bridgewater College provides a state-approved program for the preparation of elementary and secondary teachers. Candidates who successfully complete this program and pass the PRAXIS I Mathematics, Virginia Communications and Literacy Assessment (VCLA), Reading for Virginia Educators (PreK–6 only) and PRAXIS II within individual content certification areas receive licensure in Virginia and may receive initial licensure to teach in many other states through reciprocal certification contracts.

The elementary education program prepares the candidate to teach in PreK–6 (PreKindergarten through grade 6). The secondary education program prepares candidates to teach grades 6–12 in the following content areas: Biology, Chemistry, Computer Science, English, Family and Consumer Science, History and Social Studies, Mathematics and Physics. The following are PreK–12 licensure areas: English as a Secondary Language, Foreign Language (French, Spanish), Health and Physical Education, Music (Instrumental or Vocal), Theatre Arts, and Visual Arts. Candidates may also seek an add-on endorsement in Algebra I and Driver Education.

Program Transition Points

1. Pre-Admission
2. Admission to the Teacher Education Program (TEP)
3. Admission to Student Teaching
4. Criteria for Application for Licensure to the Commonwealth of Virginia Department of Education
5. Alumni

Admission to the Teacher Education Program (TEP)

Candidates who already hold a bachelor's degree and are seeking to fulfill requirements for certification and licensure must adhere to the same requirements as degree seeking candidates. Candidates pursuing teacher licensure may enroll in EDUC-140, EDUC-200, EDUC-201/EDUC-215 and EDUC-316 while in the process of applying for admission to the TEP.

The following requirements must be met for the interview for admission to the Bridgewater College TEP and maintained to continue participation:

1. Achieve an overall grade point average of 2.5 or better
2. Pass the Virginia Communication and Literacy Assessment (VCLA)
3. Pass the following three subtests of the Praxis Core Academic Skills for Educators Tests: Reading (5712) with a pass-score of 156 or higher, Writing (5722) with a pass-score of 162 or higher, and Mathematics (5732) with a pass-score of 150 or higher
4. Complete an application for admission to the TEP
5. Receive positive recommendations from a TEP faculty member, the academic advisor, the dean of students and at least one outside reference

6. Verify previous work or volunteer experience with youth
7. Be interviewed and recommended for admission by a departmental faculty member
8. Be approved by the director of the TEP and/or the Committee on Teacher Education

Please note that application to the TEP is the first step to becoming a teacher. In order to proceed, you will need to apply separately to student teaching.

Admission to the TEP Field Experiences

Candidates who already hold a bachelor's degree and are seeking to fulfill requirements for certification and licensure must adhere to the same requirements as degree seeking candidates. Candidates may enroll in EDUC-201/EDUC-215 if they have:

1. Achieved an overall grade point average of 2.5 or better
2. Taken the PRAXIS I Mathematics (178) or were exempt based on SAT/ACT scores or met one of the TEP PRAXIS I Mathematics options
3. Completed an application for admission to the TEP
4. Set a time-frame to have the Virginia Communications and Literacy Assessment passed

Candidates pursuing teacher licensure may not be enrolled in education courses at the 300-level which have EDUC-300-level field experiences (EDUC-302, EDUC-303, EDUC-304, EDUC-305 and EDUC-307) until they have been admitted to the TEP. In addition, they must:

1. Have maintained the requirements set for admission to the TEP
2. Have continued to advance in knowledge, skills and dispositions in general education, content area major, and TEP courses and experiences
3. Have met the prerequisites of the EDUC course as outlined in this catalog

Admission to Student Teaching

Candidates seeking to be admitted to student teaching must complete an application for student teaching in the spring semester of the year prior to student teaching. Application materials and an application checklist are available through the TEP office. Candidates must have the support of their content major department as part of the process of admission to student teaching. In addition to a major, the candidate must have a grade of "C" or better in all education classes to continue in the TEP. Further, candidates must:

1. Have maintained the requirements set for admission to the TEP
2. Have continued to advance in knowledge, skills and dispositions in general education, content area major, and TEP courses and experiences
3. Have completed all professional education courses with a grade of "C" or higher
4. Complete the Student Teaching Application which includes a plan to have taken the PRAXIS II Content Area Assessment and Reading for Virginia Educators (RVE) prior the start of student teaching
5. Have a signed Content Area Support for Student Teaching form from the department chair of the candidate's content major
6. Have demonstrated dispositions of personal and professional behaviors that support student learning and/or the performance of other professional responsibilities as measured by field experience evaluations by classroom clinical faculty and Bridgewater's TEP supervisors
7. Meet with the director of the TEP for an interview to discuss placement options within the 60-mile radius from Bridgewater College

Criteria for Application for Certification and Licensure to the Commonwealth of Virginia Department of Education Licensure

Candidates who already hold a bachelor's degree and are seeking to fulfill requirements for certification and licensure must adhere to the same requirements as degree seeking candidates. Candidates who have successfully completed student teaching (EDUC-460, EDUC-465 or EDUC-470) and who have met all the College requirements for graduation may make application for Teacher Licensure Certi-

fication. Candidates must be program completers before the College can recommend them for licensure. The awarding of certification and licensure is granted by the Virginia Department of Education (doe.virginia.gov/teaching/licensure). In order to be considered a program completer, and be recommended for certification and licensure a candidate must have done the following:

1. Completed all professional education EDUC courses with a grade of “C” or higher
2. Completed all field experiences and EDUC-380 with a grade of “C” or higher, and completed student teaching with a grade of “S”
3. Completed the following courses with a grade of “C” or higher: ENG-110; MATH-105 and MATH-115 or MATH-110 or MATH-118; and COMM-100
4. Successfully passed the PRAXIS I Mathematics, VCLA, PRAXIS II Content Area Assessment and RVE (elementary licensure)
5. Completed the Child Abuse modules as required by VA-DOE
6. Completed all requirements for the B.S. or the B.A. degree;
7. Maintained an overall GPA of 2.5 or higher
8. Completed all required paperwork for application for licensure and provided a check or money order for the cost of processing

Dismissal from the TEP

The TEP may issue a warning or dismiss a candidate from the program for failure to meet, satisfy, or demonstrate satisfactory performance in one, or more, of the following areas:

1. The candidate fails to maintain the requirements set for admission to the TEP
2. A school determines that the candidate has behaved unprofessionally in a field experience
3. The candidate lacks the ability to communicate and work effectively with peers, school personnel and PreK–12 students
4. The candidate’s behavior is deemed professionally inappropriate by school personnel, BC TEP supervisors or other BC faculty
5. The candidate fails to meet the legal requirements and professional expectations as set forth by the Virginia Department of Education Teacher Licensure Regulations

Procedure for Warning and Dismissal from the TEP

1. Once notified of the incident, the elementary or secondary coordinator will meet with the candidate and his/her academic advisor to review the complaint/incident. The coordinator may consult with a course instructor, a BC TEP supervisor, a school administrator or a classroom teacher to gather further information. The coordinator will then make a written recommendation to the candidate and to the director of TEP. A copy of this recommendation will be placed in the candidate’s TEP file.
2. Upon receipt of the recommendation, the director of the TEP will call a meeting with the candidate, his/her academic advisor and the appropriate coordinator to review the incident and may choose to warn or dismiss the candidate from the program. The director notifies the candidate in writing of the decision.
3. If the candidate is dismissed and is presently in a field experience, the director of the TEP will notify the appropriate school personnel of the dismissal.
4. A candidate who receives a warning or is dismissed may make an appeal following the College policy as found at bridgewater.edu/student-life/grievance-procedures/academics.

Technology Competencies

Candidates seeking certification to teach are required to meet all minimum technology competencies identified by the Virginia Department of Education. All courses in the education department emphasize the use of instructional technology in preparing teachers for today’s schools. Candidates satisfy these competencies by successfully completing the Education course sequence.

Education Curriculum

All candidates admitted to the TEP must take required education courses outlined for their endorsement/program level. These courses have been designed to meet the professional competencies outlined in the Virginia Department of Education Licensure Regulations for School Personnel and Technology Standards for Instructional Personnel guidelines. Transfer candidates should meet with a member of the education department upon arrival at Bridgewater in order to plan their education course sequence. *Note: Field experiences are developmental and sequential and should be taken in separate semesters, unless approved by the director of the TEP and the TEP faculty member teaching the concurrent course.*

Elementary Education (PreK–6)

Candidates seeking licensure to teach in the elementary schools are strongly encouraged to choose the liberal studies major. This will ensure that the student has met the state competencies as listed in the Virginia Licensure Regulations for School Personnel. Knowledge in the core content areas of the Virginia Standards of Learning and the ability to teach these areas is required for today's elementary teachers.

Liberal Studies

Since the liberal studies major is linked to teacher licensure, all requirements (major and education courses) must be met prior to graduation. **A candidate cannot graduate with this major and then return to complete student teaching.**

The following courses are required for the liberal studies major. See course description in appropriate department listings:

ENG-275 -01-	Grammar, Style and Editing
ENG-300	Linguistics
ENG-315	Teaching Writing
ENG-345W	Literature for Children
MATH-105	Math Theory and Computation I
MATH-115	Math Theory and Computation II
MATH-140	Introduction to Statistics
HIST-201	History of the United States to 1877
HIST-202	History of the United States since 1877
GEOG-340	Regional Geography
BIOL-100	The Nature of the Biological World
PHYS-110 -01-	Introductory Astronomy
PHYS-125	Concept of Physics
FCS-400 -01-	Child Growth and Development
FCS-408	Parent and Child Relationships

Professional Education Course Requirements for Teacher Candidates

Elementary Education (PreK–6) Licensure

EDUC-140	Introduction to Foundations of American Education
EDUC-200	Psychology of Education and Development
EDUC-215	Diversity in the Classroom
EDUC-201	Field Experience I (<i>concurrent with EDUC-215</i>)
EDUC-316	Strategies for Teaching Mathematics in the Elementary Classroom
EDUC-330	Early Literacy
EDUC-302	Field Experience II (<i>concurrent with EDUC-330</i>)
EDUC-332	Intermediate Literacy
EDUC-370	Classroom Management (Elementary)
EDUC-303	Field Experience III (<i>concurrent with EDUC-370</i>)

EDUC-380	Practicum in Current Teaching Techniques
EDUC-406	Curriculum and Instruction for the Elementary Classroom (<i>semester before student teaching</i>)
EDUC-304	Field Experience IV (<i>concurrent with EDUC-406</i>)
EDUC-450	Seminar in Educational Philosophies (<i>semester before student teaching</i>)
EDUC-470	Professional Student Teaching
GEOG-340	Regional Geography

Secondary Education (6–12) Licensure

EDUC-140	Introduction to Foundations of American Education
EDUC-200	Psychology of Education and Development
EDUC-215	Diversity in the Classroom
EDUC-201	Field Experience I (<i>concurrent with EDUC-215</i>)
EDUC-334	Literacy in the Content Area
EDUC-302	Field Experience II (<i>concurrent with EDUC-334</i>)
EDUC-370	Classroom Management (<i>PreK–12 and Secondary</i>)
EDUC-303	Field Experience III (<i>concurrent with EDUC-370</i>)
EDUC-380	Practicum in Current Teaching Techniques
EDUC-412	Curriculum and Instruction for the Secondary Classroom (<i>semester before student teaching</i>)
EDUC-304	Field Experience IV (<i>concurrent with EDUC-412</i>)
EDUC-450	Seminar in Educational Philosophies (<i>semester before student teaching</i>)
EDUC-470	Professional Student Teaching

Theatre Arts Education Licensure (PreK–12)

The same education course sequence as for secondary. Also, refer to the communication studies department section of this catalog for the required theatre course sequence.

Visual Arts Education Licensure (PreK–12)

The same education course sequence as for secondary licensure.

World Languages Education Licensure (PreK–12)

The same education course sequence as for secondary licensure.

Music Education (Vocal and Instrumental) Licensure (PreK–12)

Refer to the music department section of this catalog for the education course sequence.

Health and Physical Education Licensure (PreK–12)

The same education course sequence as for secondary licensure except EDUC-412. Also refer to the health and physical education major in the health and human sciences department section of this catalog.

English as a Second Language—ESL (PreK–12)

For ESL certification, the following courses are required in addition to the major and the education courses listed for either the elementary or secondary licensure.

COMM-100	Oral Communication
EDUC-330	Early Literacy
EDUC-302	Field Experience II (<i>concurrent with EDUC-330</i>)
EDUC-332	Intermediate Literacy
-or-	
EDUC-334	Content Area Literacy
ENG-110	Effective Writing
ENG-275	Grammar, Style and Editing
ENG-300	Linguistics

ENG-315	Teaching Writing
EDUC-215	Diversity in the Classroom
EDUC-201	Field Experience I (<i>concurrent with EDUC-215</i>)
EDUC-406	Curriculum and Instruction for the Elementary Classroom
EDUC-304	Field Experience IV (<i>concurrent with EDUC-406</i>)
ENG/FREN/SPAN-317	ESL and World Language Teaching
EDUC-307	Practicum in Current Teaching Techniques for Elementary ESL (<i>concurrent with ENG/FREN/SPAN-317</i>)
FREN/SPAN-6 credits	
EDUC-460	Professional ESL Student Teaching for Secondary (6–12)
EDUC-465	Professional Student Teaching for Elementary Dual Endorsement

Add-On Endorsement Options to the Initial Licensure Area:

Algebra I

Refer to the mathematics and computer science department for required coursework (page 175).

Driver's Education

Refer to the health and human sciences department section (page 147), ES-441 and ES-445.

COURSES

- EDUC-140 Introduction to Foundations of American Education** 3 Credits F, I, S
Helps candidates determine if teaching is their career of choice. Emphasis on the historical, sociological and pedagogical foundations of American public education, as well as culturally responsive pedagogy with academically, culturally and linguistically-diverse populations. The Virginia Technology Standards for Instructional Personnel are introduced, and candidates explore 21st century trends in PreK–12 school reform, including the analysis of data on American schools and students.
- EDUC-200 Psychology of Education and Development** 3 Credits F, S
Surveys principles of development, learning and evaluation as it relates to the educational process. Emphasis on understanding the physical, social, emotional and intellectual aspects of human development. Taught from a community of learning perspective and breaks down learning theory according to the frame of six schools of learning: developmentalists, behaviorists, information processors, cognitivists, social cognitivists and constructivists. Integration of learning theory into practice and basic understanding of informal, formative and summative assessment is taught. Introduction of the Bridgewater College Teacher Education Lesson Plan occurs within this course.
- EDUC-201 Field Experience I** 1 Credit F, S
Ten-hour field experience in an elementary, middle or secondary school setting with an academically, culturally or linguistically diverse student population.
Corequisites: EDUC-215
- EDUC-215 Diversity in the Classroom** 3 Credits F, S
Explores academic, cultural and linguistic diversity, with an emphasis on appropriate and effective strategies for instructing these diverse learners in inclusive classroom settings.
Prerequisites: minimum 2.5 GPA, application to the TEP, have taken PRAXIS I, have taken or registered for the Virginia Communications and Literacy Assessment (VCLA)
Corequisites: EDUC-201
- EDUC-302 Field Experience II** 1 Credit F, S
Twenty-hour field experience in a local school with a focus on literacy. Elementary placements include working with an emergent reader, constructing lesson plans and exploring assessment methods. PreK–12 and secondary placements focus on middle and high school literacy development within the candidates' content area, including vocabulary development; literal, interpretive, critical and evaluative comprehen-

sion; and critical thinking and writing strategies. Section 1 is for elementary candidates and Section 2 is for secondary candidates.

Prerequisites: admission to the TEP

Corequisites: EDUC-330 (PreK-6) or EDUC-334 (6-12, PreK-12)

EDUC-303 Field Experience III

1 Credit F, S

Twenty-hour field experience in a local school. Provides pre-service candidates with opportunities to apply theoretical knowledge of EDUC-370 in classroom settings. Reports, reflections and/or journal entries required as assigned. Candidates are expected to actively engage in teaching, co-teaching or assist the classroom teacher. Section 1 is for elementary candidates and Section 2 is for secondary candidates.

Prerequisites: admission to the TEP

Corequisites: EDUC-370

EDUC-304 Field Experience IV

1 Credit F, S

Twenty-hour field experience designed to coincide with EDUC-406 or EDUC-412 in order to provide candidates with direct experience in planning and instructional strategies taught in the curriculum courses. The role of the candidate is to assist and/or co-teach in a classroom setting. The candidate is evaluated on professional dispositions and teaching effectiveness. Section 1 is for elementary candidates and Section 2 is for secondary candidates.

Prerequisites: admission to the TEP, taken concurrently with EDUC-406 or EDUC-412, or permission of instructor

EDUC-305 Field Experience V

1 Credit F, S

Twenty-hour optional observational and participatory experience occurring in an elementary, middle or secondary school or in a related setting. Related readings, reflection and a journal of the experience required.

Prerequisites: admission to the TEP

EDUC-307 Practicum in Current Teaching Techniques for Elementary ESL

2 Credits F

Forty-hour intensive field experience immersed in the elementary ESL school environment for the prospective ESL teacher. While working on developing an understanding of the whole child, emphasis is placed on identifying and meeting the needs of students who are engaged in becoming acclimated to living in a culture other than their native one and learning English; identifying and continuing to develop classroom management techniques in preparation for the student teaching experience; and beginning to plan and create SOL-based lesson plans.

Prerequisites: admission to the TEP

Corequisites: ENG/FREN/SPAN-317

Note: Cannot be taken simultaneously with more than one other EDUC field experience.

EDUC-316 Strategies for Teaching Mathematics in the Elementary Classroom

3 Credits F, S

Provides prospective teachers in grades PreK-6 with the knowledge, skills and understanding to implement effective mathematics instruction. Emphasizes the teaching and learning process to enable students to develop appropriate mathematics skills, attitudes and concepts. Topics include national and state mathematics standards, assessment, diagnostic and remedial strategies, the use of manipulatives, the use of educational technology and the role of mathematics in culture and society. Required for PreK-6 licensure only.

EDUC-330 Early Literacy

3 Credits F, S

Theory and practice related to readers at emergent and beginning stages. Includes discussion of the complex factors involved in literacy acquisition at the elementary level with a focus on phonemic awareness, phonics, vocabulary, beginning fluency and comprehension. Explorations of assessment methods and strategies for teaching diverse learners, including English language learners, are emphasized.

Prerequisites: admission to the TEP

Corequisites: Section 1 of EDUC-302

EDUC-332 Intermediate Literacy

2 Credits F, S

Theory and practice related to readers at the intermediate stage. Includes discussion of the complex factors

involved in literacy acquisition at the intermediate level with a focus on reading in the content areas, stages in the writing process, vocabulary, fluency and comprehension. Explorations of assessment methods and strategies for teaching diverse learners, including English language learners, are emphasized.

Prerequisites: EDUC-330 and admission to the TEP

EDUC-334 Literacy in the Content Area

2 Credits F, S

Helps secondary education candidates describe and develop effective content literacy strategies for academically, culturally and linguistically diverse 6–12 students. Candidates use their content area curriculum to enhance literacy development including: vocabulary development; literal, interpretive, critical and evaluative comprehension; critical thinking; writing strategies; and listening and speaking skills.

Prerequisites: admission to the TEP and junior standing

Corequisites: Section 2 of EDUC-302

EDUC-370 Classroom Management

3 Credits F, S

Effective and efficient management of time, space and resources, including lessons and classroom behaviors, are examined as a means of promoting learning. Candidates develop a management plan that is inclusive, respectful and based upon current theory and practice. Effective organization and communication techniques are stressed.

Prerequisites: admission to the TEP

Corequisites: EDUC-303

EDUC-380 Practicum in Current Teaching Techniques

3 Credits I, Sum

Three-week, full-day, field practicum taken immediately before student teaching. Candidates teach in a grade-level range different from their student teaching placement, but within their range of licensure and certification. Candidates teach a minimum of two times, participate in all professional activities of their classroom cooperating teacher and engage in reflective seminars back on campus or through online delivery.

Prerequisites: admission to the TEP, successful completion of EDUC-370/EDUC-303 and taken in the Interterm or summer before student teaching

Note: Those seeking ESL certification take this course the junior year but after having taken EDUC-370/EDUC-303.

EDUC-406 Curriculum and Instruction for the Elementary Classroom

3 Credits F, S

Instructional practice in the elementary school. Strategies for effective teaching of content based on Virginia Standards of Learning (PreK–6) with particular emphasis given to science and social studies. Planning to meet instructional needs of diverse learners, integration of technology, assessment and communication with caregivers and stakeholders are stressed. Taken in the semester immediately prior to student teaching.

Prerequisites: admission to the TEP, taken the semester before student teaching

Corequisites: Section 1 of EDUC-304

EDUC-412 Curriculum and Instruction for the Secondary Classroom

3 Credits F

Instructional practice, management and evaluation appropriate for the secondary classroom. Organizational techniques and effective teaching methods and strategies are discussed to ensure the teaching of the content area standards of the secondary Virginia Standards of Learning. Strategies for using educational technology, as well as working with ESL students, are included. Emphasis on accommodation and differentiation of instruction as well as the professional association standards of each content area. Taken in the semester immediately prior to student teaching. For those candidates student teaching in the fall semester, it is taken the fall prior to student teaching.

Prerequisites: admission to the TEP, taken the semester before student teaching

Corequisites: Section 2 of EDUC-304

EDUC-450 Seminar in Educational Philosophies

1 Credit F, S

Seminar style course with interactive learning. Focuses on the philosophical foundations underlying teaching. A personal educational philosophy is developed. The philosophical and sociological foundations of instructional design based on assessment data, as well as the relationships among assessment, instruction and monitoring students to include students' performance measures in grading practices in curriculum, are stressed. Emphasis placed on professional growth. Candidates develop various personal skills and resources,

including the development of an educational portfolio, for obtaining employment in the education field.

Prerequisites: admission to the TEP and taken in the semester prior to student teaching

EDUC-460 Professional ESL Student Teaching for Secondary (6–12) 4 Credits I

Eight-week student teaching field experience for the ESL endorsement involving instructional planning, observation and teaching. Supervised by the classroom cooperating teacher and a college supervisor. Provides candidates seeking an ESL endorsement an opportunity to teach at the secondary level in an ESL environment. Candidates are expected to assume complete responsibility for the classroom during the student teaching experience and engage in all activities related to teaching in the school community.

Prerequisites: admission to the TEP and completion of all coursework in the ESL certification and TEP

EDUC-465 Professional Student Teaching for Elementary Dual Endorsement 12 Credits F, S

Ten-week student teaching field experience for the ESL endorsement involving instructional planning, observation and teaching. Supervised by the classroom cooperating teacher and a college supervisor. Candidates are expected to assume complete responsibility for the classroom during the student teaching experience and engage in all activities related to teaching in the school community.

Prerequisites: EDUC-460 and seeking ESL endorsements with PreK–6, 6–12, PreK–12 content area endorsements

EDUC-470 Professional Student Teaching 13 Credits F, S

Fifteen-week final field experience involving instructional planning, observation and teaching. Supervised by the classroom cooperating teacher and a college supervisor. Candidates are expected to assume complete responsibility for the classroom during the student teaching experience and engage in all activities related to teaching in the school community.

Prerequisites: admission to the TEP, admission to student teaching and completion of all coursework in the TEP

EDUC-475 Writer's Workshop Seminar (Cross-listed as ENG-475) 3 Credits S

This seminar examines the theory and practice of the writer's workshop paradigm and has participants develop their own writing skills as well as the ability to create more effective writing environments. Participants will explore development of voice, creation of creative and critical thought through written expression, and multiple uses of digital literacy for written expression in non-traditional modes. Participants take part in the two-week Shenandoah Valley Writing Academy at Bridgewater College and then participate through online interaction and in-person participation in three Saturday seminars.

Prerequisites: enrolled in the SVWA at Bridgewater College and have completed a bachelor's degree, hold a teacher's certification or in the process of licensure renewal

EDUC-480 Internship 3 Credits F, I, S

EDUC-490 Independent Study 3 Credits F, I, S

EDUC-491 Research 3 Credits F, I, S

EDUC-499 Honors Project 3 Credits F, I, S

Related Courses:

SPED-200 Characteristics and Strategies for Working with Individuals with Learning Differences 3 Credits I

An overview of characteristics of individuals with learning differences and provides strategies to create equitable educational and workplace environments.

SPED-210 General Education Teachers and Special Needs Learners 3 Credits S

Theory and practice related to what general education teachers need to know as they work with learners who are provided special education services. Emphasis is on implementing IEPs, providing accommodation and differentiation and collaborating/co-teaching with special educators.

Prerequisites: EDUC-140 and EDUC-200

SPED-323 American Sign Language I 3 Credits F, S

Introduction to the fundamental elements of American Sign Language. Emphasis placed on development

of basic expressive and receptive skills, deaf culture and history of ASL via lecture, video presentation and interactive dyads. Not required for education licensure program.

No prerequisites: open to all BC students

SPED-324 American Sign Language II

3 Credits F, S

Emphasis on grammar, syntax and advanced lexicon of ASL. Continuance of receptive/expressive skills development and deaf culture sensitivity. Minimum of 10 observation/volunteer hours in deaf community. Student presentation in ASL required. Not required for education licensure program.

Prerequisites: SPED-323 or permission of instructor

ENGLISH

MAJORS

English

- Writing
- Literary Studies
- Language and Literature

MINORS

English

CONCENTRATIONS

American Studies

Students majoring in English engage in close study of a wide range of literature, from traditionally valued American and English works to new literature representing many cultures. They may also choose among many writing courses to develop their talents in exposition and analysis and to do creative work. English majors typically develop their skills in writing, speech and research, as well as their analytical and aesthetic judgments as readers. Their study of both the historical development and current usage of the English language helps them to become effective writers and editors.

The English major is a good basis for further graduate study in literature or writing and for professional careers in law, government, the ministry and all levels of education. It also prepares students for work in journalism and for entrepreneurial, managerial and executive work requiring skill in oral and written communication. Such fields as public relations, marketing, personnel management, sales and leadership in non-profit agencies have also welcomed English majors. The American studies concentration offers students the opportunity to explore American culture from an interdisciplinary perspective while introducing them to a growing international academic field.

Alumni of Bridgewater College's English program currently work in a diversity of fields. Alumni include a director of a studies abroad program, an author of graphic novels, lawyers, technical writers, grant writers, librarians, teachers of English as a second language, as well as sportswriters, reporters, editors and other journalists, and teachers at elementary, secondary and college levels.

Majoring in English can lay the foundation for rich lifelong reading and writing experiences as well as prepare students for a variety of careers.

ENGLISH MAJOR

Requires the bachelor of arts degree. Consists of a minimum of 39 credit hours and includes eight core courses (totaling 24 credit hours), plus five elective courses (totaling 15 credit hours). In selecting the five elective courses, majors choose one of three tracks (writing, literary studies, or language and literature).

Core Courses:

24 credit hours consisting of the following eight courses:

ENG-200	Introduction to English Studies
ENG-310	Professional Writing
ENG-330	Shakespeare

-07-

ENG-400W	Seminar in a Major Literary Figure
ENG-401	American Literature I
ENG-402	American Literature II
ENG-405	English Literature I
ENG-406	English Literature II
ENG-450	Senior Seminar

Track 1—Writing

Core plus five courses numbered 250–324

Track 2—Literary Studies

Core plus five courses numbered 325 or above

Track 3—Language and Literature

Core plus five courses numbered 201 and above

ENG-480, ENG-490 and ENG-499 may count as electives in any of the three tracks for the English major.

ENGLISH MINOR

Consists of a minimum of 21 credit hours. The following courses are required:

ENG-200	Introduction to English Studies
ENG-401	American Literature I
-or-	
ENG-402	American Literature II
ENG-405	English Literature I
-or-	
ENG-406	English Literature II

One 300-level writing course chosen from ENG courses numbered 310–324

In addition to these four required courses, students minoring in English choose at least three elective courses from departmental offerings.

AMERICAN STUDIES CONCENTRATION

Consists of 12 credit hours from the following courses:

ENG-224W	Introduction to American Studies
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Arts and Literature

Choose one course from the following:

ENG-220	American Folklore
ENG-390W	Southern Literature
ENG-401	American Literature I
ENG-402	American Literature II
MUS-232	American Music
MUS-233	Jazz in America
COMM-230	Communication Technologies: History, Culture and Society

Multiculturalism, Ethnicity, Class and Gender

Choose one course from the following:

ENG-221	Images of the “Folk” in Literature
ENG-231	The Image of the American Indian in Literature
ENG-243	Native American Literature and Culture
HIST-340	American Indian History
SOC-333	Racial and Ethnic Studies

History and Culture

Choose one course from the following:

ECON-310	U.S. Economic and Business History
ENG-222	American Lives
HIST-201	History of the United States to 1877
HIST-202	History of the United States since 1877
HIST-365	Foundations of American Religion
HIST-462	History of the United States South
SOC-338	Introduction to Material Culture Studies

Any ENG course numbered 325–400W will satisfy the general education literature requirement.

COURSES

ENG-105 Strategies for Academic Reading and Writing 3 Credits F, S

This course is an introduction to college-level reading and writing. Students will learn and practice analytical reading skills and will receive direct instruction in using the strong writing techniques they see in published text in their own writing, with particular attention to recognizing an author's thesis, organization, use of evidence, etc., as well as features of style (e.g., employing specific diction, developing sophisticated phrase and sentence structures). They will also practice skills associated with close reading and rereading along with giving and receiving feedback on their writing and revising. A substantial component of digital technology will be incorporated (e.g., online word processing such as Google Docs, use of a class wiki).

ENG-110 Effective Writing 3 Credits F, S

Introduction to academic expository and argumentative writing, with a focus on developing rhetorical skills and practices appropriate to a range of disciplines. Instruction in ethical use of material from sources and academic documentation systems. Supplementary writer's workshop required, based on placement.

General education: master core skill

ENG-131 News Practicum (Cross-listed as COMM-131) 1 Credit F, I, S

Skills-and-theory class that applies critical thinking to discuss and solve practical problems in news media production. Prepares students for the convergence of media, providing practical experience in multiplatform media writing and production, including print, radio, TV and web journalism. Work includes approximately three hours outside the class and one hour inside each week. May be repeated for a total of 3 credits.

ENG-141 Yearbook Practicum (Cross-listed as COMM-141) 1 Credit F, S

Teaches students the process of book production through active participation in all stages of producing *Ripples*, the college yearbook. Student work is contracted on an individual basis. May be repeated for a total of 3 credits.

Prerequisites: permission of instructor

ENG-200 Introduction to English Studies 3 Credits F

An introductory methods course for English majors and minors. Surveys a variety of rhetorical and critical theories, their terminology and their application to a variety of texts in different genres. Modes of writing for diverse audiences are also practiced.

ENG-215 Science Fiction and Contemporary Issues 3 Credits I

Examines science fiction from a variety of perspectives in both written and film media. Concentrates on defining characteristics of humanness: physical, mental and spiritual. May include such topics as the role of a creator, evolutionary changes and technological innovation, to discuss ethical responsibilities and limitations.

Prerequisites: ENG-110

ENG-216 Movies from Literature and as Literature 3 Credits I

Introduction to the literary aspects of film. Some analyses cover movies derived from fiction, such as *Tom Jones*, and some treat movies without prior literary source but with a distinguished director, such as John

Ford. An examination of the social role of film is included.

Prerequisites: ENG-110

ENG-217 Literary Heroes in Popular Culture 3 Credits I

Examines characters invented first in books and periodicals but known popularly for their incarnations in other 20th century media. Characters covered are Sherlock Holmes, Tarzan, Zorro and James Bond.

Begins with original texts and moves to popular manifestations.

Prerequisites: ENG-110

ENG-218 History of Motion Picture 3 Credits I

By examining key people, ideas and techniques, the course presents an historical survey of the development of the motion picture into an art form. Students are required to attend on-campus screenings.

Prerequisites: ENG-110

ENG-219 Filming the Middle Ages 3 Credits I

Examines the role of the Middle Ages in contemporary pop culture as expressed in films. Readings include selections from film and cultural theory as well as appropriate medieval historical and literary texts. Films might include works such as Bergman, *The Seventh Seal*; Bresson, *The Messenger*; Boorman, *Excalibur*; Fuqua, *King Arthur*; Gilliam and Jones, *Monty Python and the Holy Grail*; and Scott, *Kingdom of Heaven*.

Prerequisites: ENG-110

ENG-220 American Folklife 3 Credits F

Explores the role played by traditional American culture, including music, narrative, medicine, vernacular architecture, and folk art and craft. Much of the course concentrates on the folk culture of the Shenandoah Valley.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: world cultures

Alternate years: offered 2015–2016

ENG-221 The Images of "Folk" in Literature 3 Credits F

Introduces students to the concept of folk groups and the ways they have been represented to mainstream cultures through the media of film and literature. Explores literature in conjunction with viewing of film and television depictions of "the folk" as well as documentary films made by folklorists.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: global dynamics

Alternate years: offered 2014–2015

ENG-222 American Lives 3 Credits I

Studies a range of autobiographical writings in the context of American culture, focusing on individual lives as they intersect with U.S. social history and lived experience. Readings and other source materials vary.

Prerequisites: ENG-110

ENG-223 Women in American Film 3 Credits I

An exploration of how images and ideals of American femininity have changed and/or been reinforced by film over time. Students read critical theory about gender studies and women's history, and apply these ideas to films from various American settings through a literary studies context, looking for what they reveal about how our society has changed over time. Films cover a wide range, including titles such as *All about Eve*, *Baby Boom*, *Pretty Woman*, *Thelma and Louise* and *Winter's Bone*.

Prerequisites: ENG-110

ENG-224W Introduction to American Studies 3 Credits F

Introduces students to the elements of American culture in the interdisciplinary manner of American studies. After gaining an understanding of the academic field itself, students explore the variety of ways to consider American culture including methodological and genre-based approaches.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: global dynamics and writing intensive

- ENG-225 Travel Writing** 3 Credits I
 Offers students personal experience among the cultures and natural environments of variable destinations, which provide the bases for their own original works in several modes of travel writing, including journalism, memoir, photo-essay and creative nonfiction. Contemporary issues of aboriginal rights, immigration, climate change, economic development, urban design, environmental conservation and ecotourism are potential main subjects for analysis. Probable destinations include New Zealand, Scotland and Ireland, British Columbia and the American Southwest.
Prerequisites: ENG-110
- ENG-227 Food Writing** 3 Credits I
 A writing workshop dedicated to writing about food. Topics covered include food blogs, restaurant reviews, experiences with trying new foods, recipes, experiences with food preparation and meal experiences. Literary selections and film depictions of food writing are also discussed. Expenses for incidentals such as restaurant visits are the responsibility of each student.
Prerequisites: ENG-110
- ENG-231 The Image of the American Indian in Literature** 3 Credits I
 Examination of the various ways in which American Indians have been portrayed in American literature and film. Juxtaposes a variety of visual images and literary depictions of American Indians from the early 19th century to the present with the realities of American Indian life and history. Emphasis on what these depictions reveal about American culture, its history and its values.
Prerequisites: ENG-110
- ENG-235 Literature of Southern Africa** 3 Credits I
 Examines representative literature of Namibia, Botswana, South Africa and Mozambique to assess historical, cultural and literary importance, beginning with aboriginal expression, moving through the colonial period and the struggle of apartheid to the present.
Prerequisites: ENG-110
- ENG-240 Russian Literature and Culture** 3 Credits F
 Study of major writers of 19th and 20th century Russian literature. Texts are read in English translation. Some study of Russian culture is included.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: world cultures
- ENG-243 Native American Literature and Culture** 3 Credits S
 Anthropological survey of Native North American and Meso-American cultures, examining features such as traditional subsistence patterns, kinship structures, religious beliefs and practices, social and political structures, artistic expression and intellectual history. Focuses on the literary heritage of Native American cultures, beginning with the oral tradition and storytelling, and continuing on to the “Native American Renaissance,” the proliferation of Native American authors and poets that began in the 1960s and continues to the present.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: world cultures
Alternate years: offered 2014–2015
- ENG-255W Multimedia Information Production** (Cross-listed as COMM-255W) 3 Credits F
 Teaches students the basic skills of researching, investigating and writing in a variety of formats. Emphasis on identification of the writing structures used by contemporary media writers, and utilization of these structures in original pieces researched and written by the students.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: writing intensive
- ENG-275 Grammar, Style and Editing** 3 Credits S
 Overview of what is traditionally called grammar, including syntax, mechanics, style, punctuation, spelling, vocabulary-building and proofreading for teaching writing at the elementary and secondary levels as well

as for publication at a professional level. Develops competency in creation, analysis and editing of written English.

Prerequisites: ENG-110

ENG-300 Linguistics 3 Credits F

Linguistic analysis incorporating traditional grammar, phonology, syntax, sociolinguistics, morphology, semantics and historical linguistics (including the history of the English language).

Prerequisites: ENG-110

ENG-305 Multimedia Reporting and Writing (Cross-listed as COMM-305) 3 Credits S

Builds on the skills-oriented approach of ENG/COMM-255W by putting theory behind the practice of writing. Through individual and group writing projects, students work toward understanding the increasingly complex definition of news, its blurring line with entertainment, and the dynamic interplay between technologies and audiences.

Prerequisites: ENG/COMM-255W or permission of instructor

Alternate years: offered 2015–2016

ENG-310 Professional Writing 3 Credits F

Advanced writing course in composing and revising essays, reviews and other texts for potential publication or other professional purposes. Explores rhetorical theory and analysis of rhetorical elements (audience, purpose, organization, style and so forth) of published texts, teaching application of this knowledge to students' own writing. Conducted as a writing workshop.

Prerequisites: ENG-110

ENG-311 Creative Writing 3 Credits F

Intensive workshop providing an opportunity to gain deeper insight into literary techniques and practices through the production of original short and longer works of fiction, poetry and drama, as well as creative expository forms. Students develop a single, but substantial, literary project unified by a common theme or themes. Group workshops and individual conferences provide extensive feedback and critical response as the student progresses through the project.

Prerequisites: ENG-110

ENG-312W Technical and Workplace Writing 3 Credits S

Advanced writing course in composing reports, proposals, instructions, brochures, digital information and other workplace documents. Principles of document design, strategies for incorporating graphic elements into texts and methods of editing are also emphasized.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: writing intensive

ENG-315 Teaching Writing 3 Credits S

Introduction to writing instruction for prospective teachers and writing center tutors from all disciplines. Incorporates current theoretical perspectives, applied linguistics and research on the writing process to introduce classroom practices such as one-to-one conferencing, the writing workshop approach and teaching in computer classrooms.

Prerequisites: ENG-110

ENG-317 ESL and World Language Teaching (Cross-listed as FREN/SPAN-317) 3 Credits F

Covers materials on instructional practice and student assessment as they relate to the teaching of English as a Second Language (ESL) and world languages. Material and discussions are focused on the central theme of how to contextualize language instruction and how to run a proficiency-oriented classroom. Taught in English. Required for students seeking ESL endorsement. Strongly recommended for students preparing to teach Spanish or French.

Prerequisites: ENG-110

Corequisites: EDUC-307

ENG-318W Writing in Electronic Environments 3 Credits F or S

Studies the nature of writing as it is shaped by digital technologies, including desktop publishing, docu-

ment design and electronic portfolios. Implications of these media for writing in both theory and practice are also emphasized.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: writing intensive

ENG-320 Writing Contemporary Poetry

3 Credits I

Both a writing workshop and a reading course, wherein students practice writing poetry as well as examining poetry as a group and in consultation and comparison with practicing poets. A portion of the course is off campus at a location where editors and published poets congregate in a workshop setting. Typically, students spend four to six days at a central location such as New York City or Virginia Beach.

Prerequisites: ENG-110 or permission of instructor

ENG-322 Advanced Creative Writing

3 Credits F

Advanced workshop providing an opportunity to demonstrate literary techniques and practices through the production of original short and longer works of fiction, poetry and drama, as well as creative expository forms. Students develop a single, but substantial, literary project, defined by means of a contract with the instructor and unified by a common theme or themes. Advanced workshop students also lead group workshop discussions, providing and receiving extensive feedback and critical response as class members progress through their projects. Advanced students also explore the publishing market appropriate to their work and make a serious effort to secure publication in some form.

Prerequisites: ENG-110 and ENG-311

ENG-327W Biblical Themes in Literature (Cross-listed as REL-327W)

3 Credits S

Studies literature inspired by the Bible. Reading and writing about how religious ideas are expressed in literature, how authors use specific biblical stories in their novels and how various authors may differ in their retellings of the same story.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

Alternate years: offered 2014–2015

ENG-330 Shakespeare

3 Credits F

Critical examination of Shakespeare's development as a dramatist and of his basic themes. Approximately 12 plays are studied.

Prerequisites: ENG-110

General education: literature

ENG-332W Arthurian Literature

3 Credits I, S

Examines the effect of the legends of King Arthur and his knights, showing such ideas as the Holy Grail and the code of chivalry in modern retellings and appropriations of the medieval sources. An acquaintance with Malory's *Morte D' Arthur* is expected.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-333W Irish Literature

3 Credits F

Study of Irish literature, including Celtic mythology. Late 19th and 20th century authors such as Yeats, Joyce, Synge, O'Casey and Bowen are emphasized. Includes study of Irish political and cultural history.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-336 Literature of the Black Experience

3 Credits F

Selected readings in the fiction, drama, poetry and non-fiction prose of major black writers, both African and African American. Influential authors may include Douglass, Wright, Ellison, Achebe, Baldwin and Morrison.

Prerequisites: ENG-110

General education: literature

ENG-341 Mythology and Classical Literature 3 Credits F

Examination of Greek myth, especially of mythological ideas and figures that have had great influence on literature and thought, and of selected Greek and Roman classics. Readings may include selections from Homer, Greek drama, Plato, Lucretius, Virgil and St. Augustine.

Prerequisites: ENG-110

General education: literature

ENG-342 Medieval Literature from Beowulf to Dante 3 Credits S

Study of several of the major works of medieval literature, including epic, Arthurian romance; religious lyric and drama; biography; and satire, with special attention to themes such as adventure, courtly love and self-discovery.

Prerequisites: ENG-110

General education: literature

ENG-343W Literature of the Renaissance and the Enlightenment 3 Credits F

Readings in the Renaissance epic, in early prose narrative, and in drama, lyric and other major literary forms. May include works by Machiavelli, Milton, Thomas More, Shakespeare, Molière, Swift and Voltaire.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-344 Literature of Romanticism and Realism 3 Credits S

Study of literature during the late 18th and 19th centuries. Explores the development of Romanticism and realism in American, English and other western European literatures such as German, Russian and French. Includes fiction, poetry and drama by authors such as Blake, Wordsworth, Goethe, Pushkin, Dickens, Austen, G. Eliot, the Brontës, Dostoevsky, Chekhov, Poe, Melville, Twain, James, Ibsen and Flaubert.

Prerequisites: ENG-110

General education: literature

ENG-345W Literature for Children 3 Credits F, S

Development and analysis of the major types of children's literature are addressed, including picture books, poetry, fables, folktales, fantasy, realism and historical fiction. Students read and analyze classic examples of each type.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-347W Nineteenth Century Children's Literature 3 Credits I

Study of works written during the first golden age of children's literature. Exploration of examples of the century's proliferating types of fiction (fantasy, adventure, domestic and exotic realism), comparison of original literary texts to filmed adaptations, investigation of the influence of folktales upon children's literature, and acquaintance with some of the best illustrators and writers for children of the period.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-350 Literature for Young Adults 3 Credits I

Reading and critical response to a range of fiction, nonfiction and poetry written for middle school through high school audience or considered suitable reading for this audience.

Prerequisites: ENG-110

General education: literature

ENG-360 Modern Drama (Cross-listed as THEA-360) 3 Credits F

Examination of theatrical literature and forms from the late 19th century well-made plays, Realism, Expressionism, Futurism and Symbolism, to Epic theatre and the Theatre of the Absurd. Playwrights such as Henrik Ibsen, Bernard Shaw, Anton Chekhov, Eugene O'Neill, Bertolt Brecht and Samuel Beckett are studied. Students gain an understanding of the scope, history, techniques and influence of modern drama.

Prerequisites: ENG-110

General education: literature

Alternate years: offered 2015–2016

ENG-362 Contemporary Drama (Cross-listed as THEA-362) 3 Credits S

Contemporary theatrical forms of American and British drama. Begins with post-World War II dramatic works and moves sequentially to the present day. Areas of attention include the “angry young men,” metadrama, gender, race and ethnicity, the “new brutalism,” and contemporary docudrama. Particular focus on how play texts engage with the cultural and historical moment of their creation. Provides an understanding of the scope, history, techniques and influence of contemporary drama. Playwrights such as John Osborne, Edward Albee, Edward Bond, José Rivera, Martin McDonagh, Tony Kushner, Sarah Kane, Suzan Lori-Parks, Nilo Cruz, Moisés Kaufman and Sarah Ruhl are studied.

Prerequisites: ENG-110

General education: literature

Alternate years: offered 2015–2016

ENG-364 Studies in Short Fiction 3 Credits F

Study of the development of the short story as a distinctive literary form with focus on the genre’s history, techniques and conventions, giving emphasis to 19th and 20th century authors from various national literatures who have had a particular impact on the form’s development.

Prerequisites: ENG-110

General education: literature

ENG-366W Studies in the Novel 3 Credits S

Study of the development of the novel as a distinctive literary form with emphasis on different techniques, conventions and themes of the genre exemplified by representative works chosen from American, British and other national literatures.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-368W Studies in Poetry 3 Credits S

Study of the development of poetry as a distinctive literary form with emphasis on the techniques, conventions and themes of the genre exemplified by representative works chosen from American, British and other national literatures.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-385W Modern Literature 3 Credits F

Study of the modernist movement in American, English and world literatures with emphasis on fiction, poetry and drama written in the first half of the 20th century before World War II. Writers studied may include Hemingway, Faulkner, Yeats, T. S. Eliot, Woolf, Pound, Conrad, Camus, Sartre, Joyce, Kafka and Mann.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-386 Contemporary Literature 3 Credits S

Study of post-modern and contemporary literature in American, English and world literatures with emphasis on fiction, poetry and drama written from World War II to the present day. Writers studied may include Beckett, Ellison, Vonnegut, Achebe, Borges, Kundera and Heaney.

Prerequisites: ENG-110

General education: literature

ENG-390W Southern Literature 3 Credits S

Study of the literature and culture of the southern United States from the 19th century to the present. Explores the cultural development of the region and the influence of the historical context including slavery, reconstruction, economic depression and the Civil Rights movement. Writers studied may include Mark Twain, William Faulkner, Eudora Welty, Zora Neale Hurston, James Dickey, Flannery O’Connor, Walker

Percy, Alice Walker, Cormac McCarthy and Larry Brown.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

Alternate years: offered 2015–2016

ENG-400W Seminar in a Major Literary Figure

3 Credits S

Critical examination of the life and writing of a major figure from American, British or world literature. May take more than once for credit if the featured literary figure is different each time. Figures may include Dante, Geoffrey Chaucer, John Milton, Jane Austen, Mark Twain, Henrik Ibsen, William Butler Yeats, James Joyce, Virginia Woolf or William Faulkner.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: literature and writing intensive

ENG-401, ENG-402 American Literature I, II

3 Credits each F, S

Explores the development of American literature from the Colonial period through late 19th century American Realism (ENG-401). Transcendentalism, Realism and Naturalism are examined. Sequence continues from the Modernist period to the present (ENG-402). Examines imagist poetry, existentialism, confessional poetry, postmodernism, the Beat movement, metafiction and various multicultural perspectives.

Prerequisites: ENG-200 or permission of instructor

Does not satisfy the general education literature requirement.

ENG-405, ENG-406 English Literature I, II

3 Credits each F, S

Explores the development of English literature from its Anglo-Saxon beginnings through the 18th century (ENG-405). Sequence continues from Romanticism to the present (ENG-406).

Prerequisites: ENG-200 or permission of instructor

Does not satisfy the general education literature requirement.

ENG-450 Senior Seminar

3 Credits F

An in-depth, graduate-level seminar examining a special literary topic or a literary figure or figures, to be chosen by the instructor. Explores both the primary sources and the critical and theoretical context of those sources. Culminates with students' production of critical essay which contributes to the ongoing critical discussion.

Prerequisites: ENG-200 or permission of instructor

Does not satisfy the general education literature requirement.

ENG-475 Writer's Workshop Seminar (Cross-listed as EDUC-475)

3 Credits S

This seminar examines the theory and practice of the writer's workshop paradigm and has participants develop their own writing skills as well as the ability to create more effective writing environments. Participants will explore development of voice, creation of creative and critical thought through written expression, and multiple uses of digital literacy for written expression in non-traditional modes. Participants take part in the two-week Shenandoah Valley Writing Academy at Bridgewater College and then participate through online interaction and in-person participation in three Saturday seminars.

Prerequisites: enrolled in the SVWA at Bridgewater College and have completed a bachelor's degree, hold a teacher's certification or in the process of licensure renewal

ENG-480 Internship

3 Credits F, I, S

ENG-490 Independent Study

3 Credits F, I, S

ENG-491 Research

3 Credits F, I, S

ENG-499 Honors Project

3 Credits F, I, S

ENVIRONMENTAL SCIENCE

MAJORS

Environmental Science

MINORS

Environmental Science

EMPHASES

Wildlife Biology

The degree program in environmental science is an interdisciplinary major overseen by the biology and chemistry departments. This program features both introductory and advanced courses that prepare majors either for immediate employment, or to enter strong graduate programs to pursue advanced degrees in areas of specialization such as environmental engineering, applied ecology, resources conservation and others. This major brings basic sciences to bear upon crucial problems caused by human use and abuse of natural resources. An emphasis is on water as a resource.

Problems associated with the availability, provision, protection and recycling of water have great impact on the quality of human life. Water is a basic necessity for life itself, and life quality is enhanced when there is an abundance of clean, safe water for agriculture, recreation, industry and municipal development. All human uses degrade water, some decidedly so; therefore, a continuing source of well-prepared environmental resources specialists is needed and this curriculum is designed toward that end.

Modern environmental science takes advantage of rapidly expanding knowledge in ecology, molecular and cell biology, environmental chemistry, space technology and instrumentation. There is continuing demand for well-prepared environmental scientists. With a baccalaureate degree, new graduates may pursue direct employment as high school earth science teachers, governmental field technicians, industrial or municipal water and wastewater technicians, field analysts for engineering and environmental consulting companies, or conservation technicians. With graduate preparation, students can aspire to leadership positions in remediation, regulation and protection with local, state, federal or global government, and as research scientists, college professors, environmental planners and environmental lawyers. Many graduate schools now offer cross-discipline opportunities for environmental science majors in health-related disciplines such as toxicology, epidemiology and public health.

Internships and Research Opportunities

Bridgewater College science majors have participated in environmentally-related internships in a variety of settings, including local industrial and municipal wastewater treatment plants, the Virginia Department of Environmental Quality, the Harrisonburg/Rockingham Regional Water and Sewer Authority, district offices of the U.S. Forest Service, the Virginia Department of Game and Inland Fisheries, the Chincoteague National Wildlife Refuge, the Shenandoah National Park and regional environmental consulting companies. All environmental science majors are encouraged to seek out internships and/or research opportunities.

ENVIRONMENTAL SCIENCE MAJOR

The bachelor of science degree in environmental science consists of 51–54 credits of courses in biology, chemistry, physics and mathematics. The following courses are required (42 credits):

BIOL-110	Principles of Biology I
BIOL-111	Principles of Biology II
BIOL-350	Ecology
CHEM-161	General Chemistry
CHEM-162	General Chemistry
ENVR/BIOL-301	Principles of Environmental Science
ENVR/CHEM-320	Environmental Chemistry
CHEM-250	Fundamental Organic Chemistry
CHEM-306	Organic Chemistry II
MATH-130	Survey of Calculus
MATH-131	Calculus I
MATH-140	Introduction to Statistics
BIOL-330	Biostatistics
PHYS-218	College Physics I
PHYS-221	General Physics I

The remaining 9–12 credits must come from three additional ENVR, BIOL, or CHEM courses numbered above 300 from the following list:

ENVR-305	Environmental Law
BIOL-316	Ornithology: The Biology of Birds
BIOL-318	Biology of the Insects
BIOL-321	Herpetology
BIOL-335	Summer Flora
BIOL-354	Winter Ecology
BIOL-422	Biogeography
ENVR/BIOL-365	Field Biology and Natural History
BIOL-420	Plant Taxonomy
ENVR/BIOL-433	Biology and Management of Fishes
BIOL-440	Animal Behavior
ENVR/BIOL-312W	Forest and Wildlife Resource Management
ENVR/BIOL-401	Environmental Microbiology
ENVR/BIOL-435	Freshwater Ecology
BIOL/CHEM-405	Biochemistry
ENVR/BIOL-402	Conservation Biology
ENVR/CHEM-380	Instrumental Analysis
GEOG-340	World Regional Geography

Note: Some ENVR electives are cross-listed under BIOL or CHEM. Potential double majors in Environmental Science (with either Biology or Chemistry) are cautioned that cross-listed ENVR courses will be counted toward only one major, and that the second major may require up to 15 additional credits beyond the apparent minimum.

ENVIRONMENTAL SCIENCE MINOR

Consists of 32 credit hours including the following courses:

The following courses are required:

BIOL-110	Principles of Biology I
BIOL-111	Principles of Biology II

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
ENVR/BIOL-301	Introduction to Environmental Science
ENVR/CHEM-320	Environmental Chemistry

And two elective courses chosen from the following:

BIOL-335	Summer Flora
BIOL-350	Ecology
BIOL-354	Winter Ecology
BIOL-420	Plant Taxonomy
BIOL-440	Animal Behavior
ENVR-305	Natural Resource and Environmental Law
ENVR/BIOL-312W	Forest and Wildlife Resource Management
ENVR/BIOL-365	Field Biology and Natural History
ENVR/BIOL-401	Environmental Microbiology
ENVR/BIOL-402	Conservation Biology
ENVR/BIOL-433	Biology and Management of Fishes
ENVR/BIOL-435	Freshwater Ecology

No electives may double count for a student's major and minor.

WILDLIFE BIOLOGY EMPHASIS

The Wildlife Biology emphasis allows students wanting the breadth of the biology or environmental science major to also focus in areas of wildlife biology and management. In this program, students will take 11–17 additional credits on top of their major to specialize in wildlife. The program offers directed study in wildlife management and techniques, botany, zoology, and policy and ethics. This program along with the biology or environmental science major and the general education requirements will support students wishing to pursue careers with state and federal agencies, graduate degree programs in wildlife biology, as well as those who wish to pursue Wildlife Biologist Certification through the Wildlife Society.

Consists of 23 credits. Biology majors may overlap two courses with their major electives and Environmental Science majors may overlap three courses with their major electives. The requirements are as follows:

Wildlife Management and Techniques

Environmental Science majors take one course; Biology majors take two courses:

BIOL/ENVR-312W	Forest and Wildlife Resource Management
BIOL/ENVR-365	Field Biology and Natural History
BIOL/ENVR-402	Conservation Biology

Molecules, Anatomy and Physiology

Environmental Science majors take one course; Biology majors take no courses:

BIOL-309	Genetics
BIOL-311	Animal Physiology
BIOL-325	Molecular Biology of the Cell
BIOL-412	Comparative Vertebrate Anatomy

Botany

Environmental Science and Biology majors take one course:

BIOL-335	Summer Flora
BIOL-420	Plant Taxonomy

Zoology/Organisms

Environmental Science and Biology majors take two courses:

BIOL-316	Ornithology: The Biology of Birds
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BIOL-318	Biology of Insects
BIOL-321	Herpetology
BIOL/ENVR-433	Biology and Management of Fishes

Policy/Ethics

Environmental Science and Biology majors take one course:

PHIL-235E	Bioethics
PHIL-320E	Professional Ethics
PHIL-340EW	Environmental Ethics
ENVR-234E	Wildlife Ethics
ENVR-305	Natural Resources & Environmental Law

THE SMITHSONIAN-MASON SEMESTER FOR CONSERVATION STUDIES

Bridgewater College is a member institution of the Smithsonian-Mason Semester which is run by George Mason University out of the Smithsonian Conservation Biology Institute (SCBI) in Front Royal, Va. In this program, students live on the SCBI campus (a world-class conservation research facility) and learn about the theory and application of conservation biology (including the social, political and economic dimensions). Students participate in one of two 16 credit hour programs: Ecology for Effective Conservation Practices or Applied Conservation Strategies (for any student interested in conservation). Interested students should visit the program's website (smconservation.gmu.edu/programs/undergraduate) and contact the biology department or the coordinator of international education.

Both programs are appropriate for juniors and seniors. There are no specific prerequisite classes for the Applied Conservation Strategies. That program is open to all majors. The Ecology for Effective Conservation Practices semester has Ecology (BIOL-350) as a prerequisite.

COURSES

- ENVR-234E Wildlife Ethics** 3 Credits I
 This course will explore the ethical implications of wildlife management, research and stewardship by applying ethical frameworks to issues surrounding wildlife. Possible topics include reintroduction of wolves to Yellowstone and subsequent delisting, predator control, supplemental feeding, logging/wildlife conflicts, hunting culture, etc.
Prerequisites: PDP-150 or PDP-350, ENG-110 and BIOL-100, BIOL-110 or BIOL-112
General education: ethical reasoning
- ENVR-256 Conservation Biology of Florida** (Cross-listed as BIOL-256) 3 Credits I
 Due to its location, geology and climate, Florida supports a variety of unique species and ecosystems. It also supports rapidly growing human populations and diverse economic activities. This course provides an overview of environmental and conservation issues that have arisen as human activity has increased (including water quality, decline of biodiversity, invasive species, and wetland loss and restoration). The class travels to Florida where they learn about environmental and conservation problems and solutions. Students examine the science as well as the economic, political and social aspects of the issues.
Prerequisites: BIOL-100, BIOL-101 or BIOL-110, or permission of instructor
- ENVR-301 Principles of Environmental Science** (Cross-listed as BIOL-301) 4 Credits F
 Exploration of basic biological, chemical, geological, and physical processes at work on the earth, its lifeways and its natural resources. The extent of human impact and the need for global awareness are emphasized, along with the need for application of rapidly expanding knowledge and technology toward solution of environmental problems. Three lectures and one lab per week.
Prerequisites: BIOL-110 and BIOL-111 or CHEM-161 and CHEM-162 or permission of instructor

ENVR-305 Natural Resource and Environmental Law 3 Credits S

Overview of federal and state laws that are aimed at the conservation of natural resources and/or protection of environmental quality. Major laws covered include the National Environmental Protection Act, Clean Air Act, Clean Water Act, the Endangered Species Act and others. Speakers from natural resource/environmental agencies such as the Virginia Department of Environmental Quality, Virginia Department of Game and Inland Fisheries and U.S. Forest Service provide practical insights into the application and implementation of environmental policy.

Prerequisites: BIOL-100, BIOL-101 or BIOL-110

Alternate years: offered 2015–2016

ENVR-312W Forest and Wildlife Resource Management (Cross-listed as BIOL-312) 4 Credits S

Ecology and management of forest lands and their animal populations, including principles and policy in support of diverse goals such as preservation of wilderness, management for harvest, parks and recreation, and habitat recovery. Effects of geology, soils, water and climate on habitat quality and management implications. Three lectures and one lab per week.

Prerequisites: PDP-150 or PDP-350, ENG-110 and BIOL-111 or permission of instructor

General education: writing intensive

ENVR-320 Environmental Chemistry (Cross-listed as CHEM-320) 4 Credits S

The chemistry and quantitative aspects of environmentally important cycles (C, N, O, P, S) in the context of the atmosphere, hydrosphere and lithosphere. Major environmental issues are discussed such as acid rain, sewage treatment, ozone destruction, anthropogenic climate change, air pollution and eutrophication. Laboratories involve sampling, quantitative detection and data analysis. Three lectures and one lab per week.

Prerequisites: CHEM-162

Alternate years: offered 2015–2016

Credit may not be received for both CHEM-120 and ENVR/CHEM-320

ENVR-324 The Hydrogen Economy, Alternative Energy and Scandinavia 3 Credits I

Study of how Scandinavian societies have been shaped by energy resources and energy production. Alternative modes of energy production are studied and a contrast is made between the national energy policies of Iceland and Denmark compared to the United States. Special emphasis is given to the emerging hydrogen economy in Iceland. One week on campus and two weeks in Iceland and Denmark.

ENVR-365 Field Biology and Natural History (Cross-listed as BIOL-365) 4 Credits Sum

Field-based course providing a broad overview of techniques and concepts involved in field biology (especially ecology) including basic scientific method and a variety of sampling techniques. Course content also has a strong emphasis on basic natural history as students learn about and experience a wide variety of organisms (e.g. plant, fungi, insects, fish, amphibians and mammals), ecosystems (e.g. forests, grasslands, wetlands, ponds and streams) and ecological interactions. Students also discuss techniques for interpreting/teaching these biological concepts to others.

Prerequisites: BIOL-111 or permission of instructor

ENVR-380 Instrumental Analysis (Cross-listed as CHEM-380) 4 Credits F

Exposure to methods of quantitation, signal-to-noise enhancement, instrumental design and function, methods of spectroscopy, chromatography, electroanalytical analysis and mass spectrometry. Three lectures and one lab per week.

Prerequisites: CHEM-250 or CHEM-305

Alternate years: offered 2014–2015

ENVR-401 Environmental Microbiology (Cross-listed as BIOL-401) 4 Credits F

Exploration of how microorganisms interact with their environment and the implications of these interactions for humans. Specific topics include antibiotic resistance; biodegradation; biodiversity; biofuels; bioremediation; extreme environments; geochemical cycles; methods for sampling; culture and analysis of environmental microorganisms; microbiology of air, water and soil; environmental pathogens; and

microbiological treatment of sewage and water. Three lectures and one lab per week.

Prerequisites: BIOL-325 or ENVR/CHEM-320

Alternate years: offered 2014–2015

ENVR-402 Conservation Biology (Cross-listed as BIOL-402) 4 Credits F

Survey of the methods used by the public and private sectors to manage the environment and natural resources. Primary emphasis on restoration ecology and conservation biology. Other topics addressed include environmental engineering (e.g. green chemistry and design of pollution control devices), economic considerations in conservation (e.g. conservation land easements and ecotourism), and government regulation. The lab provides students with experience applying standard methods of monitoring biological resources. The lab also provides an opportunity for students to hear talks from environmental experts and to travel to local sites where management activities are occurring.

Prerequisites: BIOL-111 or permission of instructor

Alternate years: offered 2014–2015

ENVR-433 Biology and Management of Fishes (Cross-listed as BIOL-433) 4 Credits S

Survey of diversity of fish (with an emphasis on freshwater fish of North America). Topics include taxonomy, anatomy, physiology, behavior and ecology. Special emphasis on management of fish populations and diversity in the face of environmental threats including pollution, habitat alteration, overharvest and invasive species. Lab includes basic ecology and behavior but focuses heavily on common fisheries' techniques.

Prerequisites: ENVR/BIOL-301 or BIOL-350, or permission of instructor

Alternate years: offered 2015–2016

ENVR-435 Freshwater Ecology (Cross-listed as BIOL-435) 4 Credits S

Introduction to aquatic ecosystems (lakes, ponds, streams and wetlands). Students learn about the major chemical and physical processes that determine the function of freshwater systems. Students are introduced to the major groups of aquatic organisms (algae, vascular plants, invertebrates, fish and amphibians). Strong emphasis on the impacts that humans have on freshwater systems. The lab introduces the basic skills necessary for the study and management of fresh waters.

Prerequisites: ENVR/BIOL-301 or BIOL-350 or permission of instructor

Alternate years: offered 2015–2016

ENVR-480 Internship 3 Credits F, I, S

ENVR-490 Independent Study 3 Credits F, I, S

ENVR-491 Research 3 Credits F, I, S

ENVR-499 Honors Project 3 Credits F, I, S

HEALTH & HUMAN SCIENCES

MAJORS

Athletic Training
Family and Consumer Sciences
Health and Exercise Science
Health and Physical Education
Nutrition and Wellness

MINORS

Coaching
Equine Studies
Family and Consumer Sciences
Nutrition and Wellness

PRE-PROFESSIONAL PROGRAMS

Occupational Therapy
Physical Therapy
Physician Assistant

The department of health and human sciences teams experienced faculty, challenging coursework and relevant experiential learning to prepare students for the needs of today's employers and graduate schools. Students within this department will have rich opportunities that foster innovation, creativity and risk-taking while being challenged to explore scientific foundations and practical applications within each discipline. Whether a student prefers to enter the job force or move on to graduate school after their bachelor's degree is complete, the department of health and human sciences has programs that enhance success in the varied fast-paced and ever-changing disciplines of athletic training, family and consumer sciences, health and exercise science, health and physical education, nutrition, coaching, and equine studies.

The dynamic curricula empower students to address issues affecting individuals, families and communities. Graduates of our programs have demonstrated success in professions such as childhood, adolescent and adult education; state cooperative extension programs; school administration; law enforcement; pharmaceutical sales; medicine; chiropractic; nutrition and dietetics; nursing; physician assistant; paramedic; prosthetics; athletic training; massage therapy; occupational therapy; physical therapy; coaching; recreation; fitness; and varied human services careers and equine settings.

In addition to departmental major and minor course offerings, students across the campus are invited to explore interests in physical activity and wellness. Instruction in activities that develop new physical skills are designed to translate into lifetime activity and healthy living.

ATHLETIC TRAINING MAJOR

Consists of 56 credit hours in the following courses:

ES-249	Nutritional Concepts in Exercise Science
ES-250	Emergency Care and Prevention of Athletic Injuries
ES-251	Basic Concepts in Athletic Training
ES-252	Clinical Affiliation I: Introduction to Athletic Training
ES-301	General Medical Conditions

ES-320	Kinesiology
ES-335	Physiology of Exercise
ES-351	Athletic Injury Evaluation
ES-352	Clinical Affiliation II: Lower Extremity
ES-353	Clinical Affiliation III: Upper Extremity
ES-354	Therapeutic Modalities
ES-355	Therapeutic Exercise and Rehabilitation
ES-356	Management Concepts in Health Care
ES-450	Advanced Clinical Evaluation Training
ES-451	Clinical Affiliation IV: Equipment Intensive
ES-452	Clinical Affiliation V: General Medical
ES-453	Counseling and Pharmacology
BIOL-112	Human Biology
BIOL-305	Introduction to Human Anatomy
BIOL-314	Human Physiology

For individuals looking to prepare for an allied health career in athletic training. In addition, the major provides an added avenue for students interested in pursuing graduate studies in physical therapy or occupational therapy.

Students are required to maintain a cumulative grade point average of 2.5 and complete the application process to the department of health and human sciences (January 15 is the deadline). Additionally, students must complete their clinical experience under the supervision of a preceptor and successfully complete the Clinical Competencies and Proficiencies and the five clinical affiliations.

Admissions Standards

Admission to the athletic training major is regardless of sex, race, color, national or ethnic origin or disability. Only applicants who have met the minimum requirements established below will be considered for a position. The admission process will be competitive for limited positions. Admission packets may be requested from the director of the athletic training program.

- Understand and sign the Technical Standards Form for the athletic training program.
- A complete application—submitted before January 15 of the application year.
- Three letters of reference—stipulating academic and leadership potential and overall character of the applicant—from the faculty at Bridgewater College.
- Completion of a minimum of 200 “pre-placement” hours with intercollegiate athletics at Bridgewater College. These hours are used to familiarize the student with the athletic training profession and the practical requirements of the program.
- Successful academic performance resulting in a minimum cumulative GPA of 2.5.
- Successful completion of ES-250, ES-249 and BIOL-305 (final grade of C- or above).
- Self-direction essay (500 words or more).
- All students meeting established minimum requirements will be interviewed by the Curriculum Admission Committee.

The Curriculum Admission Committee will interview and rank candidates based on objective criteria. Admission will not exceed a ratio of more than eight students per licensed athletic trainer. Letters of admission will be sent to applicants prior to February 1.

Technical Standards Information

The Athletic Training Program at Bridgewater College is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills and competencies of an entry-level athletic trainer, as well as meet the expectations of the

program's accrediting agency (Commission on Accreditation of Athletic Training Education [CAATE]). The following abilities and expectations must be met by all students admitted to the Athletic Training Program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the Board of Certification (BOC) exam.

Candidates for selection to the Athletic Training Program must demonstrate:

1. The mental capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm.
2. Sufficient postural and neuromuscular control, sensory function and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients.
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional behavior.
4. The ability to record the physical examination results and a treatment plan clearly and accurately.
5. The capacity to maintain composure and continue to function well during periods of high stress.
6. The perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced.
7. Flexibility and the ability to adjust to changing situations and uncertainty in clinical situations.
8. Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Candidates for selection to the Athletic Training Program will be required to verify they understand and meet these technical standards or that they believe that, with certain accommodations, they will meet the standards.

The Bridgewater College director of academic support services will evaluate a student who states he or she could meet the program's technical standards with accommodation and confirm that the stated condition qualifies as a disability under applicable laws.

If the student states he or she can meet the technical standards with accommodation, then the College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation; this includes a review of whether the accommodations requested would jeopardize clinician/patient safety, or the educational process of the student or the institution, including all coursework, clinical experiences and internships deemed essential to graduation.

Transfer Students

A student who has attended another accredited college or university and is in good standing may apply for admission to Bridgewater College. One who has attended an accredited two-year college may transfer as many as 68 credits in courses comparable to those offered at Bridgewater College. Transfer students applying for admission to B.C. must have a cumulative grade point average of 2.0 or above and be in good standing at the college they are attending. A transfer student applying for admission into the Bridgewater College Athletic Training Program must have a minimum of a 2.5 cumulative grade point average and must have completed the aforementioned admissions standards (Technical Standards Form, ES-249, ES-250, BIOL-305 observational hours, essay, application and interview). No student will be admitted into the program without successful completion of the pre-placement phase. Credentials collected for admission include all of those that are required for first-time entering students as well as a Dean's Reference Form and an official transcript from each institution of higher learning attended since completion of the secondary program. Transcripts will be evaluated by the registrar on a course-by-course basis. Credit will

be awarded only for those courses that a grade of C or above has been earned. The only course that may be transferred in within the athletic training major is ES-250. All other courses for this major must be taken at Bridgewater College. Other general education requirements may be transferred based on the above criteria.

Graduation Requirements

1. Complete a minimum of 123 credit hours with a minimum of 48 credit hours chosen from junior- and senior-level courses.
2. Complete general education requirements for the respective degree.
3. Complete course requirements for the major.
4. Earn a minimum cumulative GPA of 2.0 and a minimum GPA of 2.0 in courses required for the major.
5. Complete a minimum of 33 credit hours with 30 of the last 33 credit hours of academic work in residence at Bridgewater College or at a College-approved study abroad program. In addition, complete at least 9 credit hours of the major at Bridgewater College.

Following successful completion of this program, a student will be eligible to sit for the Board of Certification (BOC) exam.

Additional Requirements for Athletic Training

- There are additional requirements for program progression and retention identified in the Athletic Training Program Student Manual. Please contact the department of health and human sciences for a copy of this manual or find it on the athletic training webpage.
- All students admitted to the professional phase of the program are required to attend pre-season training as early as August 1 each year.
- Students admitted to the professional phase of the program may be required to complete their clinical affiliations during normal college breaks, e.g. spring break and holidays.
- Additional fees for the program are announced in the athletic training student handbook and may include things such as the cost for class books, laboratories, clinical affiliations, criminal background check, medical examinations, CPR/AED/First Aid certification and clinical uniforms.

FAMILY AND CONSUMER SCIENCES MAJOR (GENERAL)

Consists of 32 credit hours in FCS courses including FCS-110 and FCS-471 and at least one course in each of the five areas of family and consumer sciences: textiles/clothing; nutrition/foods; child development/family life; interior design/housing; and consumer studies/management.

Remaining required credits are to be selected in consultation with the student's advisor based on career objective (e.g., PreK-6 certification, day care, community services, gerontology, fashion merchandising, housing and home interiors, family counseling, event planning).

Students not requiring FCS-400 for licensure purposes may substitute with PSY-370. Students may also select BUS-110 rather than FCS-425 for their consumer studies/management option.

FAMILY AND CONSUMER SCIENCES MAJOR (SECONDARY EDUCATION)

Designed for those seeking certification to teach in secondary schools with an endorsement in family and consumer sciences, grades 6-12. Consists of a minimum of 41 credit hours in family and consumer sciences including:

FCS-102	Introduction to Textiles, Fashion and Apparel
FCS-110	Foundations of Family and Consumer Sciences Professions
FCS-201	Principles of Food Science
FCS-321	Fundamentals of Housing
FCS-400	Child Growth and Development

FCS-412	FCS-Curriculum and Instructional Methods
FCS-420	Occupation Program Management
FCS-430	Family Management
FCS-471	Senior Seminar

And one additional course in each of the five areas of family and consumer sciences: textiles/clothing; nutrition/foods; child development/family life; home interiors/housing; and consumer studies/management. (15 credit hours)

Students may substitute BUS-110 for FCS-425.

Separate admission to the Teacher Education Program (TEP) is a requirement for anyone wishing to graduate with a major in family and consumer sciences education. Specific admissions criteria for the TEP are found on page 108. Consists of the following courses:

EDUC-140	Introduction to Foundations of American Education
EDUC-200	Psychology of Education and Development
EDUC-201	Field Experience I
EDUC-215	Diversity in the Classroom
EDUC-302	Field Experience II
EDUC-303	Field Experience III
EDUC-334	Reading in the Content Area
EDUC-370	Classroom Management
EDUC-380	Practicum in Current Teaching Techniques
EDUC-450	Seminar in Educational Philosophies
EDUC-470	Professional Student Teaching

HEALTH AND EXERCISE SCIENCE MAJOR

Consists of 52 credit hours in the following courses:

BIOL-112	Human Biology
BIOL-305	Introduction to Human Anatomy
BIOL-314	Human Physiology
ES-215	Research Methods
ES-230	Introduction to Health and Exercise Science
ES-249	Nutritional Concepts in Exercise Science
ES-300	Personal and Community Health
ES-320	Kinesiology
ES-335	Physiology of Exercise
ES-356	Management Concepts in Health Care
-or-	
ES-360	Organization and Administration of Health and Exercise Science
ES-368	Psychological Principles in Physical Education and Sport
-or-	
ES-367	Health and Exercise Psychology
ES-460	Senior Seminar

And 12 additional credit hours from the following courses:

BIOL-411	Advanced Human Anatomy
BUS-310	Principles of Marketing
CHEM-250	Fundamental Organic Chemistry
ES-260	First Aid and Safety
ES-325	Principles of Health and Physical Fitness Assessment
ES-342	Foundations of Strength and Conditioning
ES-345	Motor Behavior
ES-354	Therapeutic Modalities
ES-355	Therapeutic Exercise and Rehabilitation

ES-427	Health Promotion and Wellness
ES-491	Research
-or-	
ES-499	Honors Project
MATH-140	Statistics
PHIL-320E	Professional Ethics
-or-	
PHIL-235E	Bioethics
PSY-310	Abnormal Psychology
PSY-370	Developmental Psychology

This major introduces students to the sub-disciplines of health and exercise science, providing students with a sound preparation upon which to develop a career or to pursue graduate study in the discipline.

HEALTH AND PHYSICAL EDUCATION MAJOR

For the student pursuing a career in teaching health and/or physical education. Consists of 48 credit hours. Separate admission to the Teacher Education Program (TEP) is a requirement for anyone wishing to graduate with a major in health and physical education. Specific admissions criteria for the TEP are found on page 108. Consists of the following courses:

ES-235	Introduction to Teaching Physical Education
ES-260	First Aid and Safety
ES-300	Personal and Community Health
ES-310	Movement Education
ES-318	Human Anatomy and Physiology
ES-335	Physiology of Exercise
ES-340	Health and Exercise Science Methods*
ES-345	Motor Behavior
ES-350	Tests and Measurements*
ES-360	Organization and Administration of Health and Exercise Science
ES-368	Psychological Principles in Physical Education and Sport
ES-370	Teaching Methods for Secondary Physical Education*
ES-385	Adapted Physical Education and Recreation
ES-426	Teaching Methods for Elementary Physical Education*

Three activity courses from ES-120–ES-189

Minimum of 3 credit hours from ES-371–379

In addition to the major, the following courses are required for licensure/certification:

EDUC-140	Introduction to Foundations of American Education
EDUC-200	Psychology of Education and Development
EDUC-201	Field Experience I*
EDUC-215	Diversity in the Classroom*
EDUC-302	Field Experience II*
EDUC-303	Field Experience III*
EDUC-334	Reading in the Content Area*
EDUC-370	Classroom Management*
EDUC-380	Practicum in Current Teaching Techniques*
EDUC-450	Seminar in Educational Philosophies*
EDUC-470	Professional Student Teaching*

*Courses only offered to students accepted into the Teacher Education Program

Students wishing to pursue this major should declare their intentions early in their academic career due to the significant course loads required to graduate in four years and the need for careful planning and advising.

NUTRITION AND WELLNESS MAJOR

Consists of 49 credit hours in the following courses:

FCS-240	Contemporary Nutrition and Wellness
FCS-350	Lifespan Nutrition and Wellness
FCS-355	Nutrition for the Athlete
FCS-455	Community Nutrition
ES-300	Personal and Community Health
ES-320	Kinesiology
ES-325	Principles of Health and Physical Fitness Assessment
ES-335	Physiology of Exercise
ES-427	Health Promotion and Wellness
BIOL-112	Human Biology
BIOL-305	Introduction to Human Anatomy
CHEM-125	Fundamentals of Inorganic Chemistry
CHEM-250	Fundamentals of Organic Chemistry
MATH-140	Introduction to Statistics
SOC-451	Counseling and Personal Development

The following courses are recommended electives to be chosen according to career objectives:

FCS-250	International Foods and Nutrition
FCS-460	Professional Family and Consumer Sciences Practicum
FCS/ES-480	Internship
BIOL-110	Principles of Biology I
CHEM-405	Biochemistry

And any fitness activity course

This is an interdisciplinary major offered for students interested in careers in wellness, health promotion and fitness leadership.

HEALTH AND HUMAN SCIENCES MINORS

Coaching

Consists of 23 credit hours. The following courses are required:

ES-240	Introduction to Coaching
ES-260	First Aid and Safety
ES-325	Principles of Health and Physical Fitness Assessment
ES-345	Motor Behavior
ES-360	Organization and Administration of Health and Exercise Science
ES-368	Psychological Principles in Physical Education and Sport
ES-371–ES-380	Three Teaching/Coaching Methods courses
ES-329	Practicum in Health and Exercise Science

This minor may be taken with a major in health and physical education or health and exercise science; however, there can be no overlap with electives listed on the health and physical education or health and exercise science plans of major.

Equine Studies

Consists of 21 credit hours. The following courses are required:

ES-110	Introduction to Equine Science
ES-200	Equine Development and Behavior
ES-210	Equine Farm and Stable Management
ES-329	Practicum

Three additional courses chosen from:

ES-220	Theories of Riding
ES-305	Equine Lameness and Disease
ES-330	Conformation: Form and Function
ES-358	Equine Business Management
ES-364	Judging and Course Design
ES-400	Training and Schooling

This minor is designed as an excellent adjunct for students in several majors including business, biology and pre-veterinary science. In addition, students interested in pursuing further study and/or careers in various equine fields will benefit from the addition of this minor to their curriculum. Facilities that will be used in support of the equine studies minor include the Bridgewater College stables located on the eastern edge of the campus and the Bridgewater College Equestrian Center, located several miles southeast of campus and the home stable for the Bridgewater College Equestrian Program. *A student pursuing the equine studies minor is required to take many classes to fulfill the minor off-site at the Bridgewater College Equestrian Center (BCEC). It is the responsibility of the student to secure transportation to the BCEC.*

Family and Consumer Sciences

Consists of 18 credit hours from FCS courses, nine hours of which must be chosen from courses numbered 300 or above.

Nutrition and Wellness

Consists of 26 credit hours. The following courses are required:

FCS-240	Contemporary Nutrition and Wellness
FCS-355	Nutrition for the Athlete
CHEM-125	Fundamentals of Inorganic Chemistry
CHEM-250	Fundamental Organic Chemistry
ES-300	Personal and Community Health
ES-325	Principles of Health and Physical Fitness Assessment
ES-335	Physiology of Exercise
ES-427	Health Promotion and Wellness

PRE-PROFESSIONAL PROGRAMS AND ARTICULATION AGREEMENTS

Majors in health and exercise science and athletic training can specifically prepare a student for graduate school admissions in the fields of **physical therapy**, **occupational therapy**, and **physician assistant**. The student should team with his/her advisor in order to devise a plan allowing the student to complete all prerequisite courses for graduate school admissions. An articulation agreement exists with Shenandoah University in **physical therapy**. Students applying to this program and meeting minimal requirements will be strongly considered for admission to the doctorate of physical therapy program. Additionally, an articulation agreement exists with Mary Baldwin College allowing two qualified students from Bridgewater College to be admitted into their physical therapy, occupational therapy and physician assistant programs. A special applications process is required in order to be considered for the Mary Baldwin College articulation agreement. Please see the department chair, Dr. Barbara H. Long, for specific information regarding this applications process. All additional questions regarding the articulation agreements should be directed to the student's advisor or Dr. Long.

GENERAL EDUCATION REQUIREMENTS

In addition to major offerings, the department of health and human sciences contributes to the College's general education program. All students are required to develop skill in a physical activity by completing a one-credit activity course. No more than 4 credits in activity courses may be applied toward graduation.

Activity courses meeting the College's general education requirement are listed as follows:

- ES-120 Bowling (1 Credit; F, S)
- ES-123 Ballet (1 Credit; F, S)
- ES-126 Aerobic Dancing (1 Credit; F, S)
- ES-131 Lacrosse, Women's Rules (1 Credit; F)
- ES-135 Golf (1 Credit; F, S)
- ES-141 Yoga (1 Credit; S)
- ES-145 Handball-Racquetball (1 Credit; S)
- ES-152 Snow Skiing (1 Credit; I)
- ES-155 Snowboarding (1 Credit; I)
- ES-162 Swimming (1 Credit; F, S)
- ES-163 Aqua Aerobics (1 Credit; F, S)
- ES-165 Tennis (1 Credit; F, S)
- ES-175 Conditioning and Weight Training (1 Credit; F, S)
- ES-177 Fitness/Jogging (1 Credit; F, S)
- ES-180 Fitness and Weight Control (1 Credit; S)
- ES-185 Horseback Riding (1 Credit; F, S)
- ES-186 Medieval Swordsmanship (1 Credit; F)
- ES-189 Ultimate Frisbee (1 Credit; F)
- ES-362 Lifeguard Training (1 Credit; S)—*successful completion leads to American Red Cross certification*

COURSES

Exercise Science

- ES-105 Wellness** 2 Credits F, I, S
Examination of the principles of wellness and encouraging the lifelong practice of wellness habits. Emphasis on personal assessment, behavioral change, information literacy and lifetime applications.
- ES-110 Introduction to Equine Science** 3 Credits F
Survey of history, breeds, characteristics, colors, disciplines, health care, facilities, equipment, anatomy, reproduction, nutrition, management and careers in equine science and industry.
- ES-200 Equine Development and Behavior** 3 Credits F
History of the horse, appreciation of the evolutionary development of the horse, including mental and physical capabilities, and the instincts which guide the horse to self-preservation.
- ES-207 First Respondent First Aid and Emergency Care** 3 Credits I
Emergency care training for those who are likely to be the first person responding to the scene of an accident, fire or medical emergency.
- ES-210 Equine Farm and Stable Management** 4 Credits S
Preventative health maintenance, facility management and basic sound business practices. Topics on horse selection, sanitation, routine veterinary practices, nutrition and supplements, equipment recognition and selection, facilities design, hoof care and farriery, exercise physiology, liability issues and insurance selection. Lecture and laboratory times required.
- ES-215 Research Methods** 3 Credits S
Introduction to research process including formulating research questions, research methods, general statistical, evaluation, presentation and research ethics.
MATH-140 recommended but not required
- ES-220 Theories of Riding** 3 Credits S
Explanation of theories involved in the development of the riding skills necessary to become successful riders in selected disciplines. Focus on hunter seat equitation but will also identify the differences in riding

styles and techniques among disciplines. Identification of the common riding faults and how those faults affect the horses' way of moving.

Alternate years: offered 2014–2015

ES-230 Introduction to Health and Exercise Science 3 Credits F, S

Exploration of contemporary issues in the field of health and exercise science including exposure to a variety of career opportunities, some of which include athletic training, exercise physiology, fitness, physical therapy, occupational therapy and recreation.

ES-235 Introduction to Teaching Physical Education 3 Credits I

Survey exploration for freshmen and sophomores interested in the health and physical education major. Observational experiences in each level of physical education teaching. Concepts include philosophy of physical education, behavior management, establishing a positive learning environment, advocacy and differentiating instruction. Two days each week in the classroom and three days each week in the field.

ES-240 Introduction to Coaching 3 Credits I

Introduction to the coaching profession. Examination of areas such as developing an athlete-centered philosophy, teaching positive values and facilitating social and emotional growth through sport, physical training basics, the role of nutrition in athletic performance, accurate information about drugs and supplements, effective communication skills and motivational techniques, organizing practices and creating practice plans, and generating program and coach evaluations.

ES-249 Nutritional Concepts in Exercise Science 3 Credits F, S

Exploration of basic nutritional requirements for active individuals and the relationship of proper nutrition to increased health and human performance. Topics include how nutrients (e.g., carbohydrates, proteins) can influence exercise performance, appropriate ways to manage weight and evaluation of the role of ergogenic aids in human performance.

ES-250 Emergency Care and Prevention of Athletic Injuries 3 Credits F, S

Survey course in athletic training. Introduces the student to prevention of injuries, emergency care, general medical conditions and administration.

ES-251 Basic Concepts in Athletic Training 3 Credits S

Introduces the student to risk factors, prevention, etiology (anatomical, biomechanical and physiological mechanisms), recognition and treatment of recreational and competitive sports injuries.

Prerequisites: ES-250, ES-320 and BIOL-305

ES-252 Clinical Affiliation I: Introduction to Athletic Training 1 Credit S

Introduces the newly admitted athletic training student to the competencies and proficiencies related to the field of athletic training. This clinical affiliation may require travel to off-campus clinical sites.

Prerequisites: ES-250 and admission to the Athletic Training Educational Program

ES-260 First Aid and Safety 3 Credits F, S

Fundamentals of administering first aid in all its aspects with attention to the prevention and treatment of athletic injuries. Emphasis on general safety procedures surrounding activities of school, college and community environments.

ES-300 Personal and Community Health 3 Credits F, S

Examination of the multiple determinants of health and wellness from a personal and community perspective. Through service-based learning experiences, students critically analyze individual, social and environmental factors that influence health. This course requires students to spend time off-campus serving at community agencies in order to successfully fulfill course requirements.

Prerequisites: ES-105

ES-301 General Medical Conditions 3 Credits F

Examination of general medical conditions of all body systems including causes of pathogen-related illnesses, chronic diseases and other acute illnesses. The application of basic human anatomy is required for

common medical condition screening, assessment, referral and treatment.

Prerequisites: BIOL-305

ES-305 Equine Lameness and Disease 3 Credits S

Introduction to common lameness and diseases of the horse. Differentiation between true emergencies and those situations which can be handled by the trained layperson, working knowledge of health requirements for equines, ability to design a plan for wellness and emphasis on effective communication with veterinary practitioners.

Alternate years: offered 2015–2016

ES-310 Movement Education 3 Credits F

Performance and teaching techniques for games, gymnastics, rhythms, dance and cooperative activities, with a focus on pedagogical issues.

Prerequisites: ES-235 or permission of instructor

ES-318 Human Anatomy and Physiology 3 Credits F

Introduction to human structures and physiological systems, which are fundamental to human activity. Systems covered include musculoskeletal, respiratory, cardiovascular and nervous with particular attention to the integration of function across systems. Students needing a laboratory-based course should take BIOL-305: Introduction to Human Anatomy and BIOL-314: Human Physiology as an alternative.

ES-320 Kinesiology 3 Credits F, S

Examination of the function of the human musculoskeletal system. Selected musculoskeletal structures and their functions, as well as analysis of movements as they relate to physical activity, exercise and sport.

Prerequisites: BIOL-305 or ES-318

ES-325 Principles of Health and Physical Fitness Assessment 3 Credits F, S

Practical experience in evaluation of physical fitness and its application to the implementation of safe and effective exercise training programs.

ES-329 Practicum in Health and Exercise Science 2 Credits F, I, S

Practicum experience consistent with the career objectives of the student. One hundred hours of competency-based work in an environment relevant to the student's chosen discipline.

ES-330 Conformation: Form and Function 3 Credits F

Demonstration of the relationship between the horse's conformation and its function or performance including methods of evaluation, conformation in relation of usability, performance requirements of various breeds, and the methods of judging. Two lecture hours and two hours of practical application per week.

Prerequisites: ES-110

Alternate years: offered 2015–2016

ES-335 Physiology of Exercise 3 Credits F, S

Basic physiological concepts of the nervous, muscular and energy systems, including the effect of exercise on such functions as circulation, respiration and temperature regulation.

Prerequisites: BIOL-305 or ES-318

ES-340 Teaching Methods for School Health 3 Credits S

Administration of school health and exercise science programs, including health instruction, environmental services and curriculum content. Methods and materials used in teaching health and exercise science as well as experiences in unit structure and application are covered.

Prerequisites: ES-300 and EDUC-215

ES-342 Foundations of Strength and Conditioning 3 Credits F, S

Preparation in scientifically sound principles of conditioning in professional settings including in-depth study of strength training, speed development, cardiovascular training, flexibility training and exercise program design. Principles and concepts derived from physiology, psychology, anatomy and kinesiology are practically applied. Application of principles of training to all populations including those with special

needs and athletes.

Prerequisites: ES-320

ES-345 Motor Behavior 3 Credits F

Examination of human movement from the perspectives of motor learning, motor development and motor control. The basic psychological learning principles and theories apply to the acquisition of motor skills and factors which may influence skill learning are identified, as is physical growth and development as related to motor performance across the lifespan.

ES-350 Tests and Measurements 3 Credits S

Examination of the principles of measurement and evaluation as applied to physical education with the purpose of preparing future health and physical education teachers to construct and/or identify appropriate, authentic assessments in the K–12 HPE setting.

Prerequisites: EDUC-215

ES-351 Athletic Injury Evaluation 4 Credits F

Examination of systemic evaluation techniques for injuries. The ability to recount, analyze and demonstrate an accurate systemic evaluation, suggest a physical dysfunction based on the analysis of the evaluation findings and plan a treatment approach based on the assessment is required for course completion.

Prerequisites: ES-251 and BIOL-314 or permission of instructor

ES-352 Clinical Affiliation II: Lower Extremity 1 Credit F

Assessment of the competencies and proficiencies related to the evaluation and care of lower extremity injuries and illnesses. This clinical affiliation may require travel to off-campus clinical sites.

Prerequisites: satisfactory grade in ES-252

ES-353 Clinical Affiliation III: Upper Extremity 1 Credit S

Assessment of the competencies and proficiencies related to the evaluation and care of upper extremity injuries and illnesses. This clinical affiliation may require travel to off-campus clinical sites.

Prerequisites: satisfactory grade in ES-352

ES-354 Therapeutic Modalities 4 Credits S

Examination of the theoretical bases of treatment goals, appropriate therapeutic modality selection, application and assessment of the treatment response that is required for the successful integration of therapeutic modalities into the athletic training practice. Identification of theoretical foundations (physiology, physics and safety) for appropriate decision-making in the selection of the appropriate therapeutic modality, including appropriate psychomotor skills for pre-treatment assessment, treatment set-up, modality application, and assessment of treatment response and appropriate documentation.

Prerequisites: ES-351 or permission of instructor

ES-355 Therapeutic Exercise and Rehabilitation 4 Credits S

Development of rehabilitation programs for individuals recovering from injury. Identification of theoretical and practical approach for the design of rehabilitation protocols and the use of available rehabilitation equipment, including specific parameters for providing exercise and rehabilitation recommendations for people encountering special disease, illness or injury states.

Prerequisites: ES-351 or permission of instructor

ES-356 Management Concepts in Health Care 3 Credits F

Concepts of administration such as devising policy and procedures, record-keeping, budgeting, facility design, risk management and productivity standards for healthcare professionals.

ES-357 Global Healthcare and Sport 3 Credits I

Comparison of the similarities and differences between varied World Health Organization ranked global healthcare systems. Emphasis will be placed on exploring delivery, financing, and effectiveness of services within various healthcare systems, with a special focus on sports medicine and related prevention and

intervention resources for athletes.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

ES-358 Equine Business Management 3 Credits F

Examination of basic business practices including business plan development, record-keeping, professional ethics, liability, insurance, resource management, evaluating and selecting staff, competitive pricing, identifying regional demographics, advertising, grant design and community development, and building a client base.

ES-360 Organization and Administration of Health and Exercise Science 3 Credits S

Examination of standards and policies in the organization, supervision and administration of health exercise science and athletics on all school levels and in all phases of the program.

ES-363 Lifeguarding Instructor 2 Credits F

Training instructor candidates to teach the American Red Cross (ARC) courses, and to review courses and challenges in: Lifeguard Training, Community Water Safety, CPR for the Professional Rescuer, Lifeguarding Instructor Aide and Longfellow's WHALE Tales.

Prerequisites: ES-362

Alternate years: offered 2015–2016

ES-364 Judging and Course Design 3 Credits F

Introduction to the process and systems involved in judging hunters, jumpers and hunter seat equitation including how to set up a judge's card, how to identify style strengths and error, the symbols used to record a performance on the card, and how to arrive at an order of award. Additionally, exploration of the design and building of hunter and jumper courses with special emphasis on the suitability of the design to skill level of competitors and level of horses involved.

Alternate years: offered 2014–2015

ES-366 Water Safety Instructor 2 Credits F

Training instructor candidates to teach the American Red Cross (ARC) Swimming and Water Safety course in: Infant and Pre-school Aquatics Program, Levels I–VII of the Learn to Swim Program, Community Water Safety course, Water Safety Instructor Aide course, and Safety Training for Swim Coaches course (additional training required).

Prerequisites: ES-362

Alternate years: offered 2014–2015

ES-367 Health and Exercise Psychology 3 Credits F

Examination of the mental health benefits of exercise as well as motivational factors involved in exercise and the many variables that influence exercise behavior (e.g., stress, emotional states, anxiety and depression). Additionally, this course explores the psychological antecedents and consequences of injury and illness.

ES-368 Psychological Principles in Physical Education and Sport 3 Credits S

Introduction to the role psychology plays in physical education and sport settings. Exploration of how psychological factors (e.g., personality, achievement motivation, anxiety) can influence participation in physical activity and motor performance, how the structure of sport and physical education programs influence psychological development, and how teaching mental skills (e.g., arousal regulation, goal setting, visualization) may enhance motor performance in physical education and sport.

ES-370 Teaching Methods for Secondary Physical Education 3 Credits S

Preparation for the physical educator to teach lifetime physical activity at the secondary level. Curriculum development, unit and lesson planning, and effective instructional strategies and techniques will be explored and applied through peer teaching and practical field experience..

Prerequisites: EDUC-215 and ES-235

ES-371–379 Teaching and Coaching Methods 1 Credit F,S

Techniques of teaching and coaching popular sports from basic fundamentals to detailed strategies. Orga-

nizational methods and administrative concerns particular to the specific sport are included.

- ES-371 Coaching Football** 1 Credit F
- ES-372 Coaching Track and Field** 1 Credit S
- ES-373 Coaching Basketball** 1 Credit F
- ES-374 Coaching Baseball and Softball** 1 Credit S
- ES-375 Coaching Tennis** 1 Credit F
- ES-377 Coaching Volleyball** 1 Credit S
- ES-379 Coaching Soccer** 1 Credit S
- ES-385 Adapted Physical Education and Recreation** 3 Credits F, S
Examination of the field of adapted physical education. Exposure to recreational needs and capabilities of people with disabilities is provided. Practical experience in working with the special populations as well as orientation to wheelchair sports. Off-campus laboratory experiences required.
- ES-400 Training and Schooling** 3 Credits S
Selection of suitable hunter/jumper prospects as well as teaching basic methods used in breaking horses, selecting facilities, equipment, over fences gymnastics, educating young or problem horses, preparation for horse shows, and the identification of necessary characteristics, personality traits and abilities to become a successful trainer in the horse world of today. Requires a two-hour lecture and two hours of practical application per week.
Prerequisites: ES-185
- ES-426 Teaching Methods for Elementary Physical Education** 3 Credits F
Preparation for future health and physical education teachers to apply principles of class management, unit and lesson planning and instructional techniques as part of a developmentally appropriate elementary physical education program. Peer teaching and field experience provide students with practical experience.
Prerequisites: EDUC-215 and ES-235
- ES-427 Health Promotion and Wellness** 3 Credits F, S
Development of community-based intervention strategies to modify health risk behaviors, with emphasis on theoretical foundations, and comprehensive program planning strategies.
- ES-441 Foundations of Traffic Safety** 3 Credits Sum I
The first of two courses required by the Virginia Department of Education for an endorsement in driver education. Development of an understanding of the highway transportation system, the complexity of the driving task, factors contributing to the performance of highway users, and attitudes and skills necessary to develop competent drivers. Provides prospective teachers with the essential knowledge and skills to effectively deliver the course content as presented in the Administrative and Curriculum Guide for Driver Education in Virginia.
- ES-445 Foundations of Methodologies of Classroom and In-Car Instruction** 3 Credits Sum II
The second of two courses required by the Commonwealth of Virginia for endorsement in driver education. Incorporation of current teaching methods and research in the field of driver education. Focuses on organization and administration, classroom instruction, single car instruction, multiple-car range, simulation and evaluation. Emphasis on actual teaching skills including a minimum of 20 hours of actual behind-the-wheel, supervised teaching experience. Course content is consistent with the Administrative and Curriculum Guide for Driver Education in Virginia.
Prerequisites: ES-441 and a valid driver's license
- ES-450 Advanced Clinical Evaluation** 3 Credits F
Examination of advanced evaluation skills enabling professionals to critically analyze injuries and their ensuing treatments.
Prerequisites: ES-351

ES-451 Clinical Affiliation IV: Equipment Intensive	1 Credit	F
Assessment of the competencies and proficiencies related to the application and care of protective medical devices and athletic equipment. This clinical affiliation may require travel to off-campus clinical sites.		
<i>Prerequisites: satisfactory grade in ES-353</i>		
ES-452 Clinical Affiliation V: General Medical	1 Credit	S
Assessment of the competencies and proficiencies related to the evaluation and care of general medical conditions. This clinical affiliation may require travel to off-campus clinical sites.		
<i>Prerequisites: satisfactory grade in ES-451</i>		
ES-453 Counseling and Pharmacology	3 Credits	S
Introduction to the concepts of pharmacology and counseling as related to healthcare.		
<i>Prerequisites: ES-450</i>		
ES-460 Senior Seminar	4 Credits	F, S
Capstone experience integrating the core learned in major level courses through readings, class discussions and projects. Additionally, skill application occurs by completing 75 hours of competency-based work in an environment relevant to the discipline and reflecting upon this experience in light of their knowledge and skill development.		
<i>Prerequisites: senior health and exercise science major or permission of instructor</i>		
ES-470 Special Topics in Health and Exercise Science	3 Credits	I
Examination of subject matter chosen from a sub-discipline within health and exercise science in which regular courses are not offered. May be repeated for credit given that a different topic is covered.		
ES-480 Internship	3 Credits	F, I, S
ES-490 Independent Study	3 Credits	F, I, S
ES-491 Research	3 Credits	F, I, S
ES-499 Honors Project	3 Credits	F, I, S

Family and Consumer Sciences

FCS-102 Introduction to Textiles, Fashion and Apparel	3 Credits	F
Factors influencing fashion including the sociological and psychological aspects of clothing, wardrobe analysis and basic construction.		
FCS-110 Foundations of Family and Consumer Sciences Professions	3 Credits	F, S
Exploration of the field of family and consumer sciences and its career opportunities.		
FCS-201 Principles of Food Science	3 Credits	F
Investigation of the scientific principles involved in basic cookery with emphasis on quality characteristics and product evaluation. Structure, composition and nutritive value of foods are studied, as well as food selection, storage, preparation, processing and meal management techniques. Instruction requires two class meetings per week and one three-hour lab.		
FCS-230 Household Textiles and Materials	3 Credits	S
Textile fibers, tests for identification, yarn and fabric constructions, methods of finishing, characteristics, uses and economics of textiles.		
<i>Alternate years: offered 2014–2015</i>		
FCS-240 Contemporary Nutrition and Wellness	3 Credits	F
Basic nutrition concepts, nutrition needs throughout the life cycle, and current nutrition issues.		
FCS-250 International Foods and Nutrition	3 Credits	F, S
The importance of food and nutrition in individual lives, communities and nations. Develops an understanding of food customs and the influence of culture and religion on food habits, with emphasis on the non-western or Third World nations. Problems in nutrition and solutions currently being tried		

or projected through national, international and voluntary agencies are studied. Laboratory experiences emphasize cultural influences on food ways.

FCS-303 Applied Design 3 Credits F

Basic methodology of working with materials in special projects useful in interior design. Projects included are furniture refinishing, upholstery, seat caning, window treatments, slipcovering, picture framing and accessorizing.

Offered on demand

FCS-304 Fashion Merchandising 3 Credits I

Consideration of the major factors involved in the buying and merchandising of fashion products. Discussion of the dynamics of fashion: consumer buying, patterns, fashion buying, and fashion makers and retailers. Local and regional fashion industry visits.

FCS-306 Fashion Promotion 3 Credits S

Investigation and application of effective promotional procedures of retail organizations including display, publicity, fashion show production and various modes of advertising.

Prerequisites: FCS-304 or permission of instructor

Alternate years: offered 2014–2015

FCS-312 Perspectives on Aging 3 Credits F, S

Geriatrics with emphasis on current issues including family and societal responsibilities, housing, clothing, economics and nutritional needs. Opportunities for observation of residential and intermediate facilities and for field experiences with appropriate agencies.

Offered on demand

FCS-319 Contemporary Family Relationships 3 Credits S

Analyzes family and interpersonal relationships from a variety of conceptual frameworks to gain an understanding of the changes in society relative to marriage and family. Emphasis placed upon the reciprocal impacts of relationships within the family and a person's relationships to individuals and organizations outside the family. Knowledge and skills that facilitate an individual's choices and actions are examined.

FCS-321 Fundamentals of Housing 3 Credits S

Aesthetic and economic factors and current problems in planning for family housing needs.

FCS-324 20th Century Interiors 3 Credits I

Survey of interiors from 1900 to the present. Emphasis placed on the relationship of architecture and interior furnishings to the economic, political, religious, social and technical climate of the times.

Offered on demand

FCS-330 Household Equipment 3 Credits F

Principles involved in intelligent choice, care and efficient operation of equipment in the home. Consideration is given to research findings and technological advances.

FCS-350 Life Span Nutrition and Wellness 3 Credits F

Nutritional needs throughout each phase of the life cycle are emphasized. Instructional delivery appropriate to each age group is stressed.

Prerequisites: FCS-240

FCS-355 Nutrition for the Athlete 3 Credits S

Study of the effects of nutrition on the well-being of the athlete and the relationship of good nutrition to optimum performance.

Prerequisites: FCS-240

FCS-368W Sociology of the Family (Cross-listed as SOC-368W) 3 Credits F

Examination of the human family historically and comparatively in various cultures with major emphasis placed upon the modern American family. Topics include the diversity of family structures, the social

construction of emotions, gender expectations and roles, parenting, the life cycle and family tensions.

Prerequisites: SOC-101 and ENG-110

General education: writing intensive

FCS-400 Child Growth and Development 3 Credits F, S

Physical, psychological and social development of the child from conception through puberty. Provisions are made for observing and working with preschool children.

Prerequisites: sophomore, junior or senior standing

FCS-401 Historic Costume 3 Credits S

Historical, literary and artistic background of the costume of various countries from early civilizations to the present.

Prerequisites: HIST-105 or HIST-110

FCS-408 Parent and Child Relationships 3 Credits S

Parent-child interactions through the child rearing years. The roles of parents, the changing nature of the parent-child relationships throughout life-cycle stages, and changes in contemporary family structures with concomitant effects on parent-child relations are considered.

FCS-412 FCS Curriculum and Instructional Methods 3 Credits F

Objectives, organization of materials, planning, special methods and techniques of communicating Family and Consumer Sciences (FCS). Consideration is given to current trends in FCS education and presenting FCS to the general public. Organizational techniques and effective teaching methods and strategies are discussed to ensure the teaching of the content areas of the secondary Virginia Standards of Learning and the Family and Consumer Sciences National Standards.

Prerequisites: junior standing

FCS-420 Occupation Program Management 3 Credits S

Instructional practice, management and evaluation appropriate for the secondary family and consumer sciences classroom. Laws governing vocational education, its management and guidance and its relationship to state and national programs is considered. Experiences with the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA), are provided.

Alternate years: offered 2015–2016

FCS-425 Family Economics 3 Credits F

Principles of economic systems in relation to standards in selection of goods and services and sources of reliable consumer information.

Prerequisites: ECON-200 or ECON-210 or permission of instructor

FCS-430 Family Management 3 Credits S

Management process and its significance on the quality of life experienced by families with consideration of values, goals, standards, decision making and resources.

Prerequisites: junior or senior standing

FCS-455 Community Nutrition 3 Credits S

Study of the health and nutritional concerns and needs of a community; the nutritional services available to the community; preventive nutrition practices; and the process involved in identifying, designing and implementing programs for the community.

Prerequisites: FCS-240

FCS-460 Professional Family and Consumer Sciences Practicum 3 or 6 Credits F, I, S

Field experiences in occupations related to family and consumer sciences. Opportunities, qualifications, skills, and professional standards and ethics are studied. Two hours per week in class and a minimum of 100 (3 credits) or 200 (6 credits) hours of field experiences.

Prerequisites: senior standing

FCS-471 Senior Seminar 2 Credits F

Capstone course focusing on goal setting, as well as personal and professional development and leadership

skills. Involvement in professional organizations, the immediate and global community and service are encouraged. Special topics and problems are developed according to the individual's specialization and professional interests.

FCS-480	Internship	3 Credits	F, I, S
FCS-490	Independent Study	3 Credits	F, I, S
FCS-491	Research	3 Credits	F, I, S
FCS-499	Honors Project	3 Credits	F, I, S

HISTORY & POLITICAL SCIENCE

MAJORS

History

History and Political Science

- Liberal Arts
- Social Studies History
- Social Studies Government

Political Science

- Standard
- Public Policy
- Pre-Law

Global Studies

MINORS

History

Political Science

Global Studies

CONCENTRATIONS

American Civil War

Politics and Public Policy

Pre-Law

Public History

PRE-PROFESSIONAL PROGRAMS

Law

The department of history and political science prepares students for a life of active citizenship and intellectual engagement by offering diverse courses that explore the historical evolution and contemporary challenges of the world and its peoples. Knowledge of history equips students to participate in core social, political, economic and cultural institutions by tracing the trajectory of those institutions and empowering students to contribute to their future development. Political science courses interrogate the processes by which communities decide what is important and what should be done by engaging in critical analysis of the institutions, policies and philosophies of the collective problem-solving processes known as governance. Global studies courses place students within the broadest context of human activity and orient them to the roles they play in the world as a single place. All of the courses in the department, therefore, focus student energy on the mechanisms they need to influence the conversations that shape their world, making them effective citizens of their local, national and global communities.

The department offers majors in history, political science, history and political science, and global studies. Students may minor in history, political science or global studies; or pursue a concentration in American Civil War, politics and public policy, pre-law, or public history. History faculty offer courses in U.S., European and non-Western history. Political science courses cover American politics, global politics and political philosophy. The history and political science major combines these two disciplines and is the typical major of students seeking careers in secondary education. The global studies major begins with core courses in the department, then

branches out to upper-level courses in a wide variety of disciplines allowing students to create a path that best fits their interests. The department is home to the College's Pre-Law Society; as well as Phi Alpha Theta, the honor society for history; and the annual Civil War Institute.

The course of study for each major emphasizes critical thinking, writing, research and project development—skills essential to any career. Faculty actively engage students with dynamic teaching that emphasizes discussion, reflection, simulations, problem-based learning and original research. This commitment extends to promoting experiential learning beyond the classroom including field trips, internships, service-learning and semester-length programs abroad. The department offers distinctive on- and off-campus experiences during Interterm including trips to the United Nations, South Africa and India. The internship program places students in law offices, non-profits, state and local government agencies, and more. Many of our majors are elected to leadership roles in student organizations including the Student Senate, the Pre-Law Society and the Honor Council.

Students pursuing majors and minors in the department have a wide variety of career interests including law, secondary and higher education, government service, museum and archival work, religion, journalism, and overseas development work.

Law Pre-Professional Program

In addition to offering a pre-law track through the political science major and a pre-law concentration open to students from any major, the history and political science department actively works with the College's Pre-Law Society to develop courses, programs, internships and guest speakers for students interested in law school and law-related careers. Students interested in law should contact Dr. James Josefson to design a course of study and get involved in the Pre-Law Society.

HISTORY MAJOR

Requires the bachelor of arts degree and consists of 42 credit hours distributed as follows:

Core Courses (18 credits)

To be completed by the end of sophomore year, except for Senior Seminar:

HIST-105	World History to 1500
HIST-110	World History since 1500
HIST-201	History of the United States to 1877
HIST-202	History of the United States since 1877
HIST-250	Historical Methods
HIST-470	Senior Seminar

United States History (at least 3 credits)

HIST-340	American Indian History
HIST-365	Foundations of American Religion
HIST-375	Cold War America
HIST-436	Science and American Culture
HIST-460	Readings in the American Civil War
HIST-462	History of the United States South

European History (at least 3 credits)

HIST-301	Medieval Europe
HIST-311	Europe, 1492–1789
HIST-321	Europe since 1789

HIST-325	Modern Britain since 1688
HIST-380	Topics in European History
HIST-385	Topics in French History
HIST-434	Science and Religion in the Early Modern World

Non-Western History (at least 3 credits)

HIST-330	Histories of Violence
HIST-335	Women's History in Global Contexts
HIST-345	Crusades and Terrorism
HIST-350	Afghanistan, Central Asia and the Great Powers
HIST-356	East Asia
HIST-360	Modern Africa
HIST-390	Topics in Non-Western History
HIST-410	Modern India and Pakistan since 1700
HIST-430	European Imperialism

And 15 additional credits from HIST courses numbered 300 or above. One PSCI course numbered 300 or above and one Internship (HIST-480) may substitute for history electives. Honors Project (HIST-499) may substitute as a major elective course. Students may not major in both history and history and political science.

HISTORY AND POLITICAL SCIENCE MAJOR

Requires the bachelor of arts degree. Students must complete 21 credits of core history and political science courses and 21 credits from one of the three tracks (liberal arts, social studies history or social studies government). Consists of 42 credit hours distributed as follows:

Core History Courses (12 credits)

HIST-105	World History to 1500
HIST-110	World History since 1500
HIST-201	History of the United States to 1877
HIST-202	History of the United States since 1877

Core Political Science Courses (9 credits)

PSCI-210	Politics and Government in the United States
PSCI-230	Introduction to Global Politics
PSCI-240	Introduction to Comparative Politics

Track 1—Liberal Arts (21 credits)

European History (3 credits)

HIST-301	Medieval Europe
HIST-311	Europe, 1492–1789
HIST-321	Europe since 1789
HIST-325	Modern Britain since 1688
HIST-380	Topics in European History
HIST-385	Topics in French History
HIST-434	Science and Religion in the Early Modern World

United States History (3 credits)

HIST-340	American Indian History
HIST-365	Foundations of American Religion
HIST-375	Cold War America
HIST-436	Science and American Culture
HIST-460	Readings in the American Civil War

HIST-462 History of the United States South

Non-Western History (3 credits)

HIST-330 Histories of Violence
 HIST-335 Women's History in Global Contexts
 HIST-345 Crusades and Terrorism
 HIST-350 Afghanistan, Central Asia and the Great Powers
 HIST-356 East Asia
 HIST-360 Modern Africa
 HIST-390 Topics in Non-Western History
 HIST-410 Modern India and Pakistan since 1700
 HIST-430 European Imperialism

Other Courses (12 credits)

6 credits of a methods/senior seminar sequence, either PSCI-250/PSCI-470 or HIST-250/HIST-470.
 6 additional credits from HIST or PSCI courses numbered 300 or above.
 An Honors Project (HIST/PSCI-499) or one Internship (HIST/PSCI-480) may be an elective course.

Track 2—Social Studies History (21 credits)

Available only for students accepted into the secondary education program

European History (3 credits)

HIST-301 Medieval Europe
 HIST-311 Europe, 1492–1789
 HIST-321 Europe since 1789
 HIST-325 Modern Britain since 1688
 HIST-380 Topics in European History
 HIST-385 Topics in French History
 HIST-434 Science and Religion in the Early Modern World

United States History (3 credits)

HIST-340 American Indian History
 HIST-365 Foundations of American Religion
 HIST-375 Cold War America
 HIST-436 Science and American Culture
 HIST-460 Readings in the American Civil War
 HIST-462 History of the United States South

Non-Western History (3 credits)

HIST-330 Histories of Violence
 HIST-335 Women's History in Global Contexts
 HIST-345 Crusades and Terrorism
 HIST-350 Afghanistan, Central Asia and the Great Powers
 HIST-356 East Asia
 HIST-360 Modern Africa
 HIST-390 Topics in Non-Western History
 HIST-410 Modern India and Pakistan since 1700
 HIST-430 European Imperialism

Other Courses (12 credits)

GEOG-340 World Regional Geography
 ECON-200 Macroeconomics
 HIST-250 Historical Methods
 HIST-470 Senior Seminar

Track 2—Social Studies Government (21 credits)

Available only for students accepted into the secondary education program

United States History (3 credits)

HIST-340	American Indian History
HIST-365	Foundations of American Religion
HIST-375	Cold War America
HIST-436	Science and American Culture
HIST-460	Readings in the American Civil War
HIST-462	History of the United States South

Other Courses (18 credits)

GEOG-340	World Regional Geography
ECON-200	Macroeconomics
PSCI-250	Methods of Research and Data Analysis
PSCI-470	Senior Seminar

And 6 credits of upper-level PSCI courses.

POLITICAL SCIENCE MAJOR

Students must complete 21 credits of core courses and 21 credits from one of the three tracks (standard, public policy or pre-law). A student who successfully completes the Standard Track or the Pre-Law Track will receive a bachelor of arts degree. A student who successfully completes the Public Policy Track will receive a bachelor of science degree. Consists of 42 credit hours distributed as follows:

Core Courses (21 credits)

PSCI-210	Politics and Government in the United States
PSCI-220	Introduction to Political Philosophy
PSCI-230	Introduction to Global Politics
PSCI-240	Introduction to Comparative Politics
PSCI-250	Methods of Research and Data Analysis
PSCI-401E	Contemporary Political Thought
PSCI-470	Seminar in International Studies and Political Science

Track 1—Standard

Receives the bachelor of arts degree and consists of 21 credit hours distributed as follows:

United States Politics (9 credits)

PSCI-332	Women and Politics
PSCI-340	Media and Politics
PSCI-350	Constitutional Law of Federalism and Institutional Powers
PSCI-355	Constitutional Law of Civil Rights and Liberties
PSCI-380	Public Administration
PSCI-390	Public Policy
PSCI-415	Policymaking, Interest Groups and Congress

Global Politics (12 credits, 3 credits may be in HIST courses)

PSCI-310	Latin American Politics
PSCI-335	Peace, War and World Politics
PSCI-336	United Nations
PSCI-356	United States Foreign Policy
PSCI-375	United States and the World
PSCI-420W	International Law and Organization
PSCI-440W	Global Political Economy

HIST-325	Modern Britain since 1688
HIST-345	Crusades and Terrorism
HIST-350	Afghanistan, Central Asia and the Great Powers
HIST-356	East Asia
HIST-360	Modern Africa
HIST-385	Topics in French History
HIST-390	Topics in Non-Western History
HIST-410	Modern India and Pakistan since 1700
HIST-430	European Imperialism

Track 2—Public Policy

Receives the bachelor of science degree and consists of 21 credit hours distributed as follows:

Public Policy (18 credits, 9 credits must be in PSCI courses)

PSCI-332	Women and Politics
PSCI-340	Media and Politics
PSCI-380	Public Administration
PSCI-390	Public Policy
PSCI-415	Policymaking, Interest Groups and Congress
PSCI-480	Internship
COMM-347	Strategic Public Relations
COMM-349X	Nonprofit Communication
COMM-420	Political Campaigns in Virtual Environments
COMM-447	Science, Environment and Health Communication
ENVR-305	Natural Resources and Environmental Law
SOC-412	Adjudication and Correction: Existing and Alternate Strategies

Global Politics (3 credits)

PSCI-310	Latin American Politics
PSCI-335	Peace, War and World Politics
PSCI-336	United Nations
PSCI-356	United States Foreign Policy
PSCI-375	United States and the World
PSCI-420W	International Law and Organization
PSCI-440W	Global Political Economy

Track 3—Pre-Law

Receives the bachelor of arts degree and consists of 21 credit hours distributed as follows:

Pre-Law (18 credits, 9 credits must be in PSCI courses)

PSCI-332	Women and Politics
PSCI-350	Constitutional Law of Federalism and Institutional Powers
PSCI-355	Constitutional Law of Civil Rights and Liberties
PSCI-415	Policymaking, Interest Groups and Congress
PSCI-420W	International Law and Organization
PSCI-480	Internship
SOC-211	Criminology
SOC-312	Juvenile Justice and Delinquency
SOC-313	Gender, Crime and Justice
SOC-314	World Justice Systems
COMM-410	Communication Law and Ethics in a Digital Age
BUS-350	Business Law

PHIL-310	Logic
PHIL-320E	Professional Ethics
ENVR-305	Natural Resources and Environmental Law

Global Politics (3 credits)

PSCI-310	Latin American Politics
PSCI-335	Peace, War and World Politics
PSCI-336	United Nations
PSCI-356	United States Foreign Policy
PSCI-375	United States and the World
PSCI-420W	International Law and Organization
PSCI-440W	Global Political Economy

Honors Project (PSCI-499) may count as an elective. Students may substitute SOC-350 for PSCI-250. Students may not double major in political science and global studies. Political science majors may minor in global studies, but 15 credits from non-core areas must be taken in disciplines other than political science.

Students interested in law school should consider pursuing the pre-law track or pre-law concentration. Majors who pursue the pre-law track may not add a pre-law concentration, but majors who complete the major using the standard or public policy track may. Up to two courses from the pre-law list may be used for both the political science major and the concentration.

Students interested in careers in public sector bureaucracies or graduate study in programs such as a master's in public policy or master's in public administration should consider completing the public policy track or the politics and public policy concentration. Majors who pursue the public policy track may not add a politics and public policy concentration, but majors who complete the major using the standard or pre-law track may add a politics and public policy concentration. Up to two courses from the public policy list may be used for both the political science major and the concentration.

Political science majors interested in careers or graduate study in international relations or security studies should consider adding the global studies minor and either a world languages and cultures major or minor.

Students interested in pursuing graduate study or careers in environmental policy should consider the public policy track with either a major in biology or environmental science or a minor in environmental science.

Students interested in graduate study or careers in criminal justice or public safety should consider adding a crime and justice minor in the sociology department.

GLOBAL STUDIES MAJOR

Requires the bachelor of arts degree and consists of 42 credit hours distributed as follows:

Core Courses (18 credits)

ECON-200	Macroeconomics
PSCI/SOC-205	Global Identities
PSCI-230	Introduction to Global Politics
PSCI-240	Introduction to Comparative Politics
PSCI-250	Methods of Research and Data Analysis
PSCI-470	Seminar in International Studies and Political Science

Global Processes (12 credits)

COMM-334	Intercultural Communication
ECON-440	International Economics
GEOG-340	World Regional Geography
HIST-330	Histories of Violence

HIST-430	European Imperialism
PSCI-335	Peace, War and World Politics
PSCI-336	United Nations
PSCI-356	United States Foreign Policy
PSCI-375	United States and the World
PSCI-420W	International Law and Organization
PSCI-440W	Global Political Economy
PSCI-480	Internship
SOC-314	World Justice Systems
SOC-361	Development and Underdevelopment in the Modern World

Comparative and Regional Studies (12 credits)

FREN-300	French Colonial Empire
FREN-325	Modern French Culture
-or-	
HIST-385	Topics in French History
HIST-321	Europe since 1789
HIST-325	Modern Britain since 1688
HIST-335	Women's History in Global Contexts
HIST-345	Crusades and Terrorism
HIST-350	Afghanistan, Central Asia and the Great Powers
HIST-356	East Asia
HIST-360	Modern Africa
HIST-390	Topics in Non-Western History
HIST-410	Modern India and Pakistan since 1700
PSCI-310	Latin American Politics
PSCI-480	Internship
REL-340	Religions of the Near East
REL-350	Religions of the Far East
SOC-365	Cultures of Africa
SPAN-300	Introduction to Spanish-Speaking Cultures
SPAN-320	Latin American Culture and Civilization
-or-	
SPAN-325	Spanish Culture and Civilization

Students may take one Internship (PSCI-480) toward the requirements for the major and apply the credits to either global processes or comparative and regional studies.

One international travel course (such as ART-307 or BIOL-253) or cultural exploration course (such as COMM-333X, ENG-240, FCS-250, FREN-305, SOC-363 or SOC-365, or SPAN-306 or SPAN-308) may be used toward the comparative and regional studies requirement.

Students may substitute SOC-322 for PSCI-250.

Students may not double major in political science and global studies. Political science majors may minor in global studies, but the 15 credits from non-core areas must be taken in disciplines other than political science.

Students pursuing a global studies major are strongly encouraged to study abroad, to explore a minor relevant to their area of interest (world languages and cultures, economics, business, philosophy and religion, etc.), and to participate in an internship. Relevant internships through PSCI-480 earn credit toward the major.

HISTORY MINOR

Consists of 21 credit hours distributed as follows:

World History Survey Course (3 credits)

- HIST-105 World History to 1500
- HIST-110 World History since 1500

United States History Survey Course (3 credits)

- HIST-201 History of the United States to 1877
- HIST-202 History of the United States since 1877

United States History (at least 3 credits)

- HIST-340 American Indian History
- HIST-365 Foundations of American Religion
- HIST-375 Cold War America
- HIST-436 Science and American Culture
- HIST-460 Readings in the American Civil War
- HIST-462 History of the United States South

European History (at least 3 credits)

- HIST-301 Medieval Europe
- HIST-311 Europe, 1492–1789
- HIST-321 Europe since 1789
- HIST-325 Modern Britain since 1688
- HIST-380 Topics in European History
- HIST-385 Topics in French History
- HIST-434 Science and Religion in the Early Modern World

Non-Western History (at least 3 credits)

- HIST-330 Histories of Violence
- HIST-335 Women's History in Global Contexts
- HIST-345 Crusades and Terrorism
- HIST-350 Afghanistan, Central Asia and the Great Powers
- HIST-356 East Asia
- HIST-360 Modern Africa
- HIST-390 Topics in Non-Western History
- HIST-410 Modern India and Pakistan since 1700
- HIST-430 European Imperialism

The remaining 6 credits must be selected from HIST courses numbered 300 or above. This minor may not be taken in conjunction with either a major in history and political science or a major in global studies.

POLITICAL SCIENCE MINOR

Consists of 21 credit hours distributed as follows:

- PSCI-210 Politics and Government in the United States
- 0Y-
- PSCI-220 Introduction to Political Philosophy
- PSCI-230 Introduction to Global Politics
- 0Y-
- PSCI-240 Introduction to Comparative Politics

And 15 additional credits from PSCI courses numbered 300 or above.

Students may take one internship (PSCI-480) toward these additional credits.

This minor may not be taken in conjunction with either a major in history and political science or a major in global studies.

GLOBAL STUDIES MINOR

Consists of 21 credit hour hours distributed as follows:

Core Courses (6 credits)

PSCI/SOC-205	Global Identities
PSCI-230	Introduction to Global Politics
PSCI-240	Introduction to Comparative Politics

Global Processes (9 credits)

COMM-334	Intercultural Communication
ECON-440	International Economics
GEOG-340	World Regional Geography
HIST-330	Histories of Violence
HIST-430	European Imperialism
PSCI-335	Peace, War and World Politics
PSCI-336	United Nations
PSCI-356	United States Foreign Policy
PSCI-375	United States and the World
PSCI-420W	International Law and Organization
PSCI-440W	Global Political Economy
SOC-314	World Justice Systems
SOC-361	Development and Underdevelopment in the Modern World

Comparative and Regional Studies (6 credits)

FREN-300	French Colonial Empire
FREN-325	Modern French Culture
	<i>-or-</i>
HIST-385	Topics in French History
HIST-321	Europe since 1789
HIST-325	Modern Britain since 1688
HIST-335	Women's History in Global Contexts
HIST-345	Crusades and Terrorism
HIST-350	Afghanistan, Central Asia and the Great Powers
HIST-356	East Asia
HIST-360	Modern Africa
HIST-390	Topics in Non-Western History
HIST-410	Modern India and Pakistan since 1700
PSCI-310	Latin American Politics
PSCI-480	Internship
REL-340	Religions of the Near East
REL-350	Religions of the Far East
SOC-365	Cultures of Africa
SPAN-300	Introduction to Spanish-Speaking Cultures
SPAN-320	Latin American Culture and Civilization
	<i>-or-</i>
SPAN-325	Spanish Culture and Civilization

Students may take one Internship (PSCI-480) toward the requirements for the minor and apply the credits to either global studies or comparative and regional studies.

Political science majors may minor in global studies, but the 15 credits from non-core areas must be taken in disciplines other than political science.

Students pursuing a global studies minor are strongly encouraged to study world languages and cultures, study abroad and participate in internships relevant to the field.

AMERICAN CIVIL WAR CONCENTRATION

Consists of 12 credit hours distributed as follows:

HIST-201	History of the United States to 1877
HIST-268	Civil War in the Shenandoah Valley
HIST-460	Readings in the American Civil War
HIST-462	History of the United States South

POLITICS AND PUBLIC POLICY CONCENTRATION

Consists of 18 credit hours chosen from the following (a minimum of 9 credit hours must be in political science):

PSCI-332	Women and Politics
PSCI-340	Media and Politics
PSCI-380	Public Administration
PSCI-390	Public Policy
PSCI-415	Policymaking, Interest Groups and Congress
PSCI-480	Internship
COMM-347	Strategic Public Relations
COMM-349X	Nonprofit Communication
COMM-420	Political Campaigning in Virtual Environments
COMM-447	Science, Environment, and Health Communication
ENVR-305	Natural Resources and Environmental Law
SOC-412	Adjudication and Correction: Existing and Alternate Strategies

PRE-LAW CONCENTRATION

Consists of 18 credit hours chosen from the following (a minimum of 9 credit hours must be in political science):

PSCI-332	Women and Politics
PSCI-350	Constitutional Law of Federalism and Institutional Powers
PSCI-355	Constitutional Law of Civil Rights and Liberties
PSCI-415	Policymaking, Interest Groups and Congress
PSCI-420W	International Law and Organization
PSCI-480	Internship
SOC-211	Criminology
SOC-312	Juvenile Justice and Delinquency
SOC-313	Gender, Crime and Justice
SOC-314	World Justice Systems
COMM-410	Communication Law and Ethics in a Digital Age
BUS-350	Business Law
PHIL-310	Logic
PHIL-320E	Professional Ethics
ENVR-305	Natural Resources and Environmental Law

PUBLIC HISTORY CONCENTRATION

Consists of 12 credit hours distributed as follows:

HIST-260	Introduction to Public History
HIST-340	American Indian History
^{-or-} HIST-375	Cold War America
HIST-480	Internship (in the Alexander Mack Library and/or the Reuel B. Pritchett Museum)

And one course from the following list:

ART-305	Museums and Galleries
ENG-220	American Folklife
ENVR-305	Natural Resource and Environmental Law
HIST-462	History of the United States South
MUS-232	American Music
SOC-338	Introduction to Material Culture Studies

COURSES

History

HIST-105 World History to 1500 3 Credits F, S

Examination of the multiple global narratives that comprise human development and interaction prior to 1500 with primary focus on early human activity, the development of complex societies, classical and post-classical ages, and expansion of post-classical cross-cultural involvement.

Corequisites: PDP-150 or PDP-350

General education: history

HIST-110 World History since 1500 3 Credits F, S

Examination of the multiple global narratives that comprise human development and interaction since 1500 with primary focus on the origins of global interdependence, the ages of revolution, industry and empire, and the 20th century.

Corequisites: PDP-150 or PDP-350

General education: history

HIST-115 20th Century World History 3 Credits F, S

Examines political, economic and cultural trends in world history over the course of the 20th century with emphasis on the interconnectivity of world peoples and places. Major themes include trade, ideology, conflict, culture and globalization.

Corequisites: PDP-150 or PDP-350

General education: history

HIST-120 Producing the World: An Economic History of the Modern World 3 Credits F, S

A socio-economic history of the world since 1500 that emphasizes the origins of the global economy, its expansion with industrialization and European colonization, and its transformation after the era of the World Wars. Major themes include the evolution of economic paradigms, products and production methods that shaped the modern world, and the impacts of economic changes for ordinary people.

Corequisites: PDP-150 or PDP-350

General education: history

HIST-125 The Atlantic World, 1450–1800 3 Credits F, S

Examines the rise and fall of an Atlantic World system that tied Europe, Africa and the Americas into a web of cultural, political and economic interdependence. Major themes include different models of New World exploration, colonization by European colonial powers, missionary activities and religious migrations, the ramifications of New World slavery, encounters and conflicts between native and colonial peoples, and the development of nation states in the Western Hemisphere.

Corequisites: PDP-150 or PDP-350

General education: history

HIST-130 African American History 3 Credits S

Survey of the African American experience in the U.S. from 1607 until the present. Emphasizes the South but incorporates the national level. Major themes include slavery, slavery politics, civil rights, family life, black culture, migration patterns and religion.

Corequisites: PDP-150 or PDP-350

General education: history

- HIST-135 History of the Islamic World** 3 Credits S
 Examines political, economic, cultural and religious trends in the greater Middle East from the birth of Islam in the seventh century to the present day. Major themes include the origins of Islam and the rise of Islamic empires and cultures, the development of an early modern polity under the Ottomans, European imperialism, and the influence of nationalism(s), resources conflicts and religious revival in the 20th and early 21st centuries.
Corequisites: PDP-150 or PDP-350
General education: history
- HIST-140E Ethical Dilemmas in World History** 3 Credits F, S
 A survey of modern ethical dilemmas drawn from the 18th century to the 21st century and from around the world that have challenged societies to rethink their economic, political and social practices in the interests of ethical or moral reform. Major themes include the rise of the abolitionist movement and its relation to human trafficking today, the moral status of warfare and various tactics of war such as torture.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: history and ethical reasoning
- HIST-201 History of the United States to 1877** 3 Credits F
 The United States from settlement to Reconstruction. Major themes include the development of a new society, the evolution of democratic behavior and the growth of sectionalism. Includes both social and political approaches.
- HIST-202 History of the United States since 1877** 3 Credits S
 The United States from Reconstruction until the present. Major themes include industrialization and modernization, the increased role of government, greater U.S. involvement in international affairs and the impact of these changes on society. A continuation of HIST-201.
- HIST-250 Historical Methods** 3 Credits S
 Introduction to historical research methods and the tools and techniques that historians use to study the past. Focuses on the development of key research skills through the location, analysis and use of primary and secondary sources in a variety of forms and settings. Students review and gain an understanding of the fundamental historiographical practices and interpretations used within the field of history.
- HIST-260 Introduction to Public History** 3 Credits I
 Introductory course for the public history concentration. Students learn the different theories of and approaches to public history, and the practice of public history in a variety of settings including field trips to institutions such as those where students could expect to work in internships and after graduation. Students also produce a plan for the completion of the concentration.
- HIST-268 The Civil War in the Shenandoah Valley** 3 Credits I
 Studies the experience of the Shenandoah Valley during the Civil War, the causes of the war, the campaigns of 1862 and 1864, and the home front, including the burning, conscientious objectors, slavery and shortages. Touches on a variety of large trends including race, gender and religion.
- HIST-270 The Second World War in Global Perspective** 3 Credits I
 Examines the foundations, nature and impact of the Second World War in Africa, the Middle East and Asia. Emphasizes the role of ideology including fascism, communism, militarism, imperialism and colonial nationalism, in shaping the experiences of both western and non-western powers in these regions from the late 1930s to 1945.
Prerequisites: PDP-150 or PDP-350
General education: global dynamics
Alternate years: offered 2014–2015
- HIST-280 History through Film; Film through History** 3 Credits I
 Examines the relationship between history and film and considers the difficult balance between historical scholarship and artistic expression. Emphasis is on popular movies portraying historical characters and events and the controversies and questions these often raise. Subjects cover a broad range of topics in

European and world history.

HIST-301 Medieval Europe 3 Credits F

Covers the development of Western Europe from the collapse of the Roman Empire to the beginnings of the Renaissance with emphasis on the ideas, individuals and events that shaped the period. Topics include daily life for the masses, evolution of political and religious thought, consolidation of state and religious authority, cultural shifts and the rise of a persecuting society, and medieval warfare.

Alternate years: offered 2015–2016

HIST-305 India Past and Present 3 Credits I

A travel course that offers a firsthand examination of the cultural, political and religious legacies of three separate empires—the Delhi Sultanate, the Mughals and the British Raj—in contemporary India. While experiencing the vast array of Indian cultures in general, students explore a number of past and current political and religious centers and examine the role of competing imperial frameworks in shaping the simultaneous unities and divisions in modern India. Focuses on Northern India including Delhi, Agra, the Great Indian Desert (Thar) in Rajasthan, British “hill stations” in the Himalayas, and the Hindu holy city of Hardwar on the River Ganges.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

Alternate years: offered 2015–2016

HIST-306 Multi-Layered Histories 3 Credits I

A travel course that studies the ways that historical events create physical and cultural layers in a landscape. Emphasizes the deeper significance of landscape and space to historical study. Investigates the process of belonging to a place and the ways historical changes re-shape places. Specific topics include urban and rural dynamics, migration, and the continual re-building of structures that accompany historical change. Emphasizes the way landscapes are made and re-configured as a historical process.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

HIST-311 Europe, 1492–1789 3 Credits S

Surveys developments in European history from the discovery of the New World to the eve of the French Revolution. Major topics include Europeans’ interactions with peoples and cultures outside Europe, the Reformation, the development of both limited and absolutist governments, the Scientific Revolution, and the Enlightenment.

Alternate years: offered 2014–2015

HIST-317 History of the Christian Church (Cross-listed as REL-317) 3 Credits F

Introduction to Christianity, surveying all three historical traditions: Roman Catholic, Eastern Orthodox and Protestant. Special emphasis on social and political structures of the church, and issues in theology and ethics from the Apostolic Age to the present.

Prerequisites: ENG-110

General education: philosophy or religion

Alternate years: offered 2015–2016

HIST-321 Europe since 1789 3 Credits S

Surveys developments in European history from the French Revolution to the present day. Major topics include the French Revolution and Napoleonic Europe, industrialization, the rise of new ideologies and systems of thought, the new Imperialism, the World Wars and the Holocaust, the rise and fall of communism, and the place of Europe in the world in the early 21st century.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

Alternate years: offered 2015–2016

HIST-325 Modern Britain since 1688 3 Credits S

Examines political, economic and cultural trends in British history from the “Glorious Revolution” of

1688 to the present day. Modern Britain stands as one of the cornerstones of the contemporary world, and its politics and culture influenced global society in countless ways, ranging from soccer to modern environmentalism to constitutional law. The course focuses on several major themes including the role of religion, finance and industry; the royal family; sport; and, most important of all, “social class,” in building British society. Students acquire a basic understanding of the major driving forces of modern British history and the ways that they compare and interrelate with Europe, the United States and the world.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

Alternate years: offered 2014–2015

HIST-330 Histories of Violence

3 Credits F, S

Examines violence in history in order to understand the origins of violent conflicts, the wider social and cultural effects of violence, and the resolution of violent conflicts within various regional contexts. The course is organized around a specific topic such as genocide, religious or sectarian violence, or civil war.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

HIST-335 Women’s History in Global Contexts

3 Credits S

Explores women’s histories within various global contexts. Stresses the construction of gender norms and their evolution over time and encourages comparison of women’s lives and experiences across various cultural contexts. Topics include women’s political rights and participation, women’s education and literacy, women’s sexuality and reproduction, and women’s work.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

HIST-340 American Indian History

3 Credits S

Examines the history of American Indians from pre-contact civilizations and cultures to the present.

Demonstrates the diversity of individual, tribal, national and pan-Indian experiences in the context of culture, society, religion, economics, politics and law. Students investigate a variety of sources including scholarly and popular non-fictional and fictional writings, images, songs and films.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

Alternate years: offered 2015–2016

HIST-345 Crusades and Terrorism

3 Credits S

Analyzes the connection between the medieval crusading movement and modern Middle Eastern terrorism by analyzing the historical context for claims used to justify violent Islamic extremism. Students work to build a balanced historical perspective and engage their social responsibility to present reasoned opinions in the public discourse over modern terrorism.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

Alternate years: offered 2015–2016

HIST-350 Afghanistan, Central Asia, and the Great Powers

3 Credits S

Examines the history of western intervention, imperialism and “nation building” in Central Asia and Afghanistan from the initial periods of Russian and British expansion into the region in the early 18th century to the American and NATO intervention in Afghanistan in the 21st century. Major themes include cultural and political interaction between local societies and the British, Russians, Soviets and Americans.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

Alternate years: offered 2014–2015

HIST-356 East Asia

3 Credits S

Survey of East Asia (China and Japan) from 1800 to the present. Emphasis is upon the different paths toward modernity taken by each society, the conflicts involved in the attainment of modernity, and the

impact of the West during the period.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

Alternate years: offered 2014–2015

HIST-360 Modern Africa

3 Credits F

Surveys the history of Modern Africa from the era of the trans-Atlantic slave trade to the present with special emphasis on sub-Saharan Africa. Approaches the history of the continent through a consideration of the nature and impact of European intrusion into African societies and African responses to European imperialism. Moreover, the course examines how independent African nations have addressed the legacies of their history and the challenges independence has posed for African nations. Special topics include apartheid, the struggle against segregation, African women, feminism, development and the difficulty in creating viable democracies and stable economies in the late 20th century.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

HIST-365 Foundations of American Religion (Cross-listed as REL-365)

3 Credits S

Survey of American religious history with a focus on origins and diversity. Major topics include Puritanism, Pietism, Revivalism, Mormonism, Methodism, African American religion, Catholicism and Judaism.

Alternate years: offered 2015–2016

HIST-375 Cold War America

3 Credits F

Examines the cultural, political and diplomatic context and events of the Cold War from 1945 to 1991 with an emphasis on life in the United States. Students explore a variety of scholarly and primary sources from the period.

Alternate years: offered 2015–2016

HIST-380 Topics in European History

3 Credits F, S

A study of major themes, questions, events and problems in European history. Includes the examination of primary documents and artifacts, and explores the implications of the theme on the cultures, economics and social systems of the region. Examples include the Greeks and the Romans, the Crusades, the Renaissance, the Protestant Reformation and others.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

HIST-385 Topics in French History

3 Credits F

Covers key topics in the modern history of France since 1871. Survey of the modern period of French history through the lens of a special topic. Topics may include France at war in the 20th century, French intellectuals and the world, multicultural France, or social transformation in modern France.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

Alternate years: offered 2014–2015

HIST-390 Topics in Non-Western History

3 Credits F

Major themes, questions and events and problems in non-western history chosen by the instructor. Can be global in perspective or specific to a region.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

HIST-410 Modern India and Pakistan since 1700

3 Credits F

Examines the history of India and Pakistan from the beginning of British rule in the early 1700s to the present. A region of the world that is increasingly important to the United States and the West, this class explores the major issues of modern South Asian history including the rise of British dominion, the Indian revolt of 1857–1858, the escalation of religious communalism, growth of nationalism, India's partition and independence, and the current nuclear stand-off between India and Pakistan by focusing on the complex interplay between nationalism, imperialism and the three major religions of the region—Hinduism, Islam

and Sikhism—over the last 300 years.

Alternate years: offered 2015–2016

HIST-430 European Imperialism 3 Credits S

Surveys Europeans' relationship with the rest of the world from the origins of modern European empires in the 19th century, to the process of decolonization in the 20th century, to current debates about neo-imperialism and neo-colonialism. Examines the effects of empire on both the colonizers and the colonized.

Alternate years: offered 2015–2016

HIST-434 Science and Religion in the Early Modern World 3 Credits F

Seminar exploring the relationship between science and religion in the West from 1450 through 1800. Explores topics such as alchemy, the Renaissance, magic and witchcraft, the Scientific Revolution, attitudes toward the human body, Enlightenment thought, and questions of modernity and progress.

Alternate years: offered 2014–2015

HIST-436 Science and American Society 3 Credits S

Seminar on the history of science and its influence on American culture and society. Investigates the period from 1859 to the present with particular attention to major personalities, events, turning points and controversies in science and in the relationship between science and American culture, politics, economics and art.

Alternate years: offered 2014–2015

HIST-460 Readings in the American Civil War 3 Credits F

Explores the American Civil War primarily through great books supplemented by lectures, films and a field trip. Topics include causes of the conflict, gender, nationalism, religion, Reconstruction, memory, military history and, especially, race, all as interpreted by modern scholarship.

Prerequisites: HIST-201

Alternate years: offered 2015–2016

HIST-462 History of the United States South 3 Credits F

Survey of the former slaveholding states. Focuses on slavery and slavery politics, race relations, and distinctive characteristics of Southern society.

Alternate years: offered 2014–2015

HIST-470 Seminar in Theory and Practice of History 3 Credits F

An in-depth seminar in historical research and the examination of historical theory culminating in the preparation and presentation of a major research paper based on primary historical sources.

HIST-480 Internship 3 Credits F, I, S

HIST-490 Independent Study 3 Credits F, I, S

HIST-491 Research 3 Credits F, I, S

HIST-499 Honors Project 3 Credits F, I, S

Political Science and Global Studies

PSCI-210 Politics and Government in the United States 3 Credits F

Introduction to American politics, covering the development of American democracy, relations between the states and the federal government, elections, the role of the media, the three branches of national government, and current public policy debates in American politics.

Corequisites: PDP-150 or PDP-350

General education: social sciences

PSCI-205 Global Identities (Cross-listed as SOC-205) 3 Credits F, S

Interdisciplinary exploration of the power and dynamics of human similarities and differences on a global scale. Covers globalization from the perspective of identity and difference, and provides opportunities

to question contemporary assumptions, values and patterns of behavior with the goal of making global interactions more constructive and more peaceful.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

PSCI-220 Introduction to Political Philosophy 3 Credits S

Changing conceptions of freedom, virtue and truth from ancient Greece to contemporary political philosophy. Students analyze popular films to illustrate and critique philosophical theories.

Prerequisites: ENG-110

General education: philosophy or religion

PSCI-230 Introduction to Global Politics 3 Credits F

Introduces the world as a site of political activity. Examines institutions and processes on a global scale. Topics include sovereignty, power, globalization, war, multilateral institutions, the environment, trade, development, poverty and a variety of current events.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

PSCI-240 Introduction to Comparative Politics 3 Credits S

Introduces the diversity of political structures, processes, cultures, ideologies and change (revolution, democratization, etc.), as manifested in multiple national political systems in the global community. Introduces the application of social science methods to political phenomena. Considers the outcomes of political systems for human well-being.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

PSCI-250 Methods of Research and Data Analysis 3 Credits S

Introduction to the production of knowledge about political phenomena. Topics include the relationship between theory and research, formulation of research questions and research design, and quantitative and qualitative methods. Students understand and evaluate scholarly research in the field and conduct their own research projects.

PSCI-275 Individual Liberties, Civil Rights and Immigration 3 Credits I

Introduction to the protection of civil rights and liberties under the U.S. Constitution, the application of those rights to citizens and non-citizens and the constitutional principles relevant to policy debates surrounding immigration

PSCI-290E Aesthetics, Philosophy and Politics 3 Credits I

Reviews the role of aesthetics in the history of political philosophy to understand aesthetics as an alternative foundation for politics. Readings include canonical figures in the history of philosophy such as Thucydides, Plato, Aristotle, Hume, Kant, Nietzsche, Dewey and Arendt. Emphasizes developing aesthetic judgment as a key capacity of citizenship.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: ethical reasoning

Alternate years: offered 2014–2015

PSCI-310 Latin American Politics 3 Credits S

Comparative analysis of contemporary Latin American politics and governments. Considers political and economic themes, noting especially the challenges of democracy, development and inequality. Examines the region's relationship with the rest of the world, including the United States.

Prerequisites: PDP-150 or PDP-350

General education: world cultures

PSCI-331EW The Classical Mind (Cross-listed as PHIL-331EW) 3 Credits F

The primary works of Plato and Aristotle form the foundation for the development of certain issues traced into the medieval era. The original contributions of major medieval thinkers, especially Augustine and

Aquinas, are assessed.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion, ethical reasoning and writing intensive

Alternate years: offered 2015–2016

PSCI-332 Women and Politics

3 Credits I

Explores the role of women in American and global politics in order to understand the role of identity, institutions and social movements in democracy. Topics include women's influence on the development of the modern American welfare state, feminism, anti-feminism, public policy issues of special importance to women and social movement strategies.

Alternate years: offered 2015–2016

PSCI-335W Peace, War and World Politics

3 Credits F

Examines human understanding of the institution of warfare and alternative means of managing large-scale conflict. Also studies the concept of peace, including the personal and policy implications of the various definitions of the term.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: global dynamics and writing intensive

Alternate years: offered 2015–2016

PSCI-336 United Nations

3 Credits I

History, structures, issues and politics of the United Nations, and a consideration of the organization's role in world politics. Includes a trip to New York City to tour U.N. headquarters and meet with diplomats.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

Alternate years: offered 2015–2016

PSCI-338 Politics of Social Change

3 Credits I

A travel course in which students travel to a site of recent political and social changes to explore the causes, dynamics and implications of revolutionary change.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

Alternate years: offered 2014–2015

PSCI-340 Media and Politics

3 Credits I

An examination of the role of mass media in American politics. Topics include the effect of journalistic norms on political news, the impact of new media technologies, media objectivity and the effect of media on political reasoning and behavior.

PSCI-350 Constitutional Law of Federalism and Institutional Powers

3 Credits F

Examination of the development of U.S. Supreme Court decisions in the areas of federalism and the powers of the three branches of the federal government. Topics include judicial review, the war powers of the President, substantive due process, government takings and the commerce clause.

Alternate years: offered 2014–2015

PSCI-351 Competitive Moot Court

1 Credit F

This course prepares students to participate in moot competitions sponsored by the American Collegiate Moot Court Association (www.acmamootcourt.org). Students will write briefs on the annual ACMA case problem and the precedent cases in the problem case portfolio. Students will also practice oral argumentation on the case problem. Not all students will compete in the competition. May be repeated for credit but a maximum of 3 credits of Competitive Moot course may be applied toward degree requirements.

PSCI-355 Constitutional Law of Civil Rights and Liberties

3 Credits S

Examination of the development of U.S. Supreme Court decisions in the areas of civil rights and civil liberties. Topics include first amendment rights to freedom of speech, press and assembly; due process rights; and rights to equal protection.

Alternate years: offered 2014–2015

- PSCI-356 United States Foreign Policy** 3 Credits F
Examines the continuity and change in the contexts, structures, processes, actors and issues of U.S. foreign policy in the 20th and 21st centuries.
Alternate years: offered 2015–2016
- PSCI-375 United States and the World** 3 Credits I
Examination of major foreign policy issues facing the U.S. and consideration of policy options available.
Prerequisites: PDP-150 or PDP-350
General education: global dynamics
- PSCI-380 Public Administration** 3 Credits S
Examination of the most pressing domestic issues confronting American society in the 21st century and the institutions and legal regimes developed to administer public policy. Topics include health care, education, criminal justice, social welfare policies, immigration, environmental issues, organizational theory, bureaucratic management and budgeting. Emphasizes active learning with simulations, debates, and engagement with public policy and public administration professionals.
Alternate years: offered 2015–2016
- PSCI-390 Public Policy** 3 Credits F
Examination of the development and implementation of public policy with an emphasis on understanding change in policy regimes over time and the variety of regulatory mechanisms. Students research public policy on a topic of their choosing such as agriculture, social welfare, health care or environment.
Alternate years: offered 2014–2015
- PSCI-401E Contemporary Political Thought** 3 Credits S
Examination of the origins and development of contemporary notions of freedom, democracy and equality from Nietzsche to contemporary political philosophy. Topics include liberalism, libertarianism and postmodern political thought.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: philosophy or religion and ethical reasoning
Alternate years: offered 2015–2016
- PSCI-415 Policymaking, Interest Groups and Congress** 3 Credits S
Examination of how Congress, the Presidency and interest groups work together to make federal public policy. Topics include the legislative process, interest group activities and the role of the presidency in the development of the federal administrative state. Students research policymaking on a topic of their choosing.
Alternate years: offered 2014–2015
- PSCI-420W International Law and Organization** 3 Credits F
Explores the nature of international law and its similarities and differences with domestic law. Examines the institutions, rules and organizations that provide the context for global interactions in an increasingly globalizing world. Case studies include issues such as human rights, the International Criminal Court, the World Trade Organization and the World Bank, and the International Monetary Fund.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: writing intensive
Alternate years: offered 2014–2015
- PSCI-440W Global Political Economy** 3 Credits S
Political implications of global economic relations including topics such as the politics of trade, monetary relations, financial crises, development, global systems of production and consumption, and multinational corporations.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: writing intensive
Alternate years: offered 2015–2016

F = Fall Semester I = Interterm S = Spring Semester

PSCI-470 Seminar in Global Studies and Political Science	3 Credits	F
Examination of significant professional literature in political science and global studies through preparation and presentation of a major research paper.		
PSCI-480 Internship	3 Credits	F, I, S
PSCI-490 Independent Study	3 Credits	F, I, S
PSCI-491 Research	3 Credits	F, I, S
PSCI-499 Honors Project	3 Credits	F, I, S

Related Course: Geography

GEOG-340 World Regional Geography	3 Credits	F
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A human geographic exploration of all world regions, emphasizing population, cultural, economic and political geographies.

Prerequisites: HIST-110 and either ECON-200 or SOC-101, or permission of instructor

MATHEMATICS & COMPUTER SCIENCE

MAJORS

Mathematics
Computer Science
Information Systems Management

MINORS

Mathematics
Computer Science
Computer Information Systems

The department of mathematics and computer science offers majors in mathematics, computer science and information systems management. Students gain fundamental knowledge, as well as real-world practical experience, using the latest techniques and software in each field.

The mathematics and computer science majors are based on the guidelines recommended by the Mathematical Association of America and the Association for Computing Machinery, respectively. Information systems management is an interdisciplinary major in which students not only receive a thorough background in computer science and information technology, but also learn the critical skills of workplace management, communication and conflict resolution that will prepare them to lead IT departments and organizations.

Mathematics and computer science graduates are prepared for careers such as programmers, analysts, researchers, network administrators, technicians, statisticians and information technology specialists, as well as top graduate schools in technology and mathematics.

MATHEMATICS MAJOR

MATH-131	Calculus I
MATH-132	Calculus II
MATH-200	Introduction to Number Theory
MATH-210	Introduction to Linear Algebra
MATH-231	Calculus III
MATH-232	Calculus IV
MATH-300	Set Theory and Symbolic Logic
MATH-310	Linear Algebra*
MATH-341	Theoretical Statistics I
MATH-410	Modern Algebra
MATH-431	Real Variables I
MATH-432	Real Variables II*
MATH-450	Special Topics

And two additional MATH courses numbered 300 or above, excluding MATH-480

Majors who wish to earn their secondary education licensure must also take MATH-320 and 360.

**Substitutions may be made for MATH-310 and MATH-432 with permission of the department for students who will student teach in the spring of their senior year.*

COMPUTER SCIENCE MAJOR

MATH-131	Calculus I
MATH-132	Calculus II
CSCI-105	Introduction to Programming
CSCI-200	Intermediate Programming
CSCI-205	Data Structures
CSCI-225	Mathematical Structures for Computer Science
CSCI-315	Artificial Intelligence
CSCI-320	Algorithm Analysis
CSCI-340	Computer Architecture
CSCI-440	Operating Systems and Networking
CSCI-460	Seminar in Computer Science
CIS-250	Introduction to Information Systems
CIS-450	Software Engineering

And two courses from the following:

ART-121	Introduction to Digital Media
ART-322	Web Theory and Design
CSCI-140	Introduction to Web API Programming Using Facebook
CSCI-300	Software Practice
CSCI-330	Scripting Languages
CSCI-410	Signal and Image Processing
CSCI-430	Programming Paradigms
CSCI-435	Compiler Design
CSCI-450	Special Topics
CIS-325	Data Communications
CIS-350	Database Management
MATH-310	Linear Algebra
MATH-341	Theoretical Statistics I
MATH-350	Numerical Analysis
PHYS-305	Electronics
PHYS-306	Digital Electronics

May be taken as a dual major with mathematics.

INFORMATION SYSTEMS MANAGEMENT MAJOR

CIS-103	Introduction to Computing
CIS-250	Introduction to Information Systems
CIS-325	Data Communications
CIS-350	Database Management
CIS-450	Software Engineering
CIS-460	Seminar in Information Systems
CSCI-105	Introduction to Programming
CSCI-330	Scripting Languages
BUS-300	Principles of Organization Management
BUS-340	Management Science
BUS-420	Human Resource Management
PHIL/SOC-367	Conflict Transformation
PHIL-320E	Professional Ethics
COMM-325	Communication in the Organization
SOC-256	Group Process
MATH-140	Introduction to Statistics

MATHEMATICS MINOR

MATH-131	Calculus I
MATH-132	Calculus II
MATH-200	Introduction to Number Theory
MATH-210	Introduction to Linear Algebra
MATH-231	Calculus III

And two additional MATH courses numbered 300–450, excluding MATH-360

COMPUTER SCIENCE MINOR

MATH-131	Calculus I
MATH-132	Calculus II
CSCI-105	Introduction to Programming
CSCI-200	Intermediate Programming
CSCI-205	Data Structures
CSCI-225	Mathematical Structures for Computer Science

And 6 additional credits in CSCI courses numbered 300 or above

COMPUTER INFORMATION SYSTEMS MINOR

May not be taken with a major in information systems management.

CIS-103	Introduction to Computing
CIS-250	Introduction to Information Systems
CIS-325	Data Communications
CIS-350	Database Management
CIS-450	Software Engineering
CSCI-105	Introduction to Programming

ALGEBRA I ADD-ON ENDORSEMENT

Students who are already admitted to the Teacher Education Program and are not already earning their secondary education licensure in mathematics may opt for an add-on endorsement in algebra I.

MATH-105	Mathematical Theory and Computation I
MATH-115	Mathematical Theory and Computation II
MATH-120	Precalculus
MATH-131	Calculus I
MATH-132	Calculus II
MATH-200	Introduction to Number Theory
MATH-140	Introduction to Statistics
⁻⁰⁷⁻	
MATH-341	Theoretical Statistics I
MATH-210	Introduction to Linear Algebra
CSCI-105	Introduction to Programming

Note: MATH-130 can be taken in place of the sequence MATH-131/MATH-132.

Requirements also include admission to the Teacher Education Program, earning an endorsement in another area and passing scores on the PRAXIS examination. If interested, please contact the chair of the mathematics and computer science department and the director of the Teacher Education Program.

COURSES

Mathematics

MATH-103 Topics in Basic Mathematics

3 Credits I

Introduction to fundamental topics in mathematics that, at present, are only available to students taking upper-level math classes. Two main areas of emphasis are geometry and linear algebra. Additional topics include algebra of complex numbers, geometric and arithmetic sequences, and measurement systems (U.S. Customary and metric).

MATH-105, MATH-115 Mathematical Theory and Computation I, II

3 Credits each F, S

Logically divided into four primary areas: arithmetic, geometry, algebra and problem solving. Each of the four areas is studied in both semesters. The theory of problem solving is an integral part of all aspects of the courses. The study of arithmetic includes the theory of arithmetic operations and the development of skills in computation; number theory and patterns in sequences of numbers are used to introduce the basics of mathematical proofs. The study of geometry includes identification of plane and solid geometric shapes, computations of perimeter, area and volume, and trigonometry of right triangles. The study of algebra includes basic algebraic operations, computation using functions, and graphing.

General education for MATH-115: master core skill

MATH-110 College Algebra

3 Credits F, S

Real numbers, exponents, radicals and algebraic operations with polynomial and rational functions. Solving equations and graphing expressions involving polynomial and rational functions, and exponential and logarithmic functions.

Credit may not be received for both MATH-110 and MATH-118

General education: master core skill

MATH-118 Quantitative Reasoning

3 Credits F, S

This course is designed to provide development of basic computational skills and introductory algebra concepts like solutions of single variable equations. It will also cover some introductory statistics and probability concepts. Problem solving will be emphasized. The course will contain at least one project that requires students to make extensive use of spreadsheet software like Excel.

General education: master core skills

MATH-120 Precalculus Mathematics

3 Credits F, S

Precalculus course for students continuing in mathematics. Topics include algebra, functions and relations, and trigonometry.

Prerequisites: MATH-110 or satisfactory performance on placement test

MATH-130 Survey of Calculus

3 Credits S

Differential and integral calculus for the student who needs a working knowledge of the subject but does not plan to pursue more advanced study in mathematics. Includes theory and application of limits, derivatives and integrals.

Prerequisites: MATH-120 or satisfactory performance on placement test

Credit may not be received for both MATH-130 and MATH-131

MATH-131 Calculus I

3 Credits F, S

Study of differential calculus of a single variable. Applications of the derivative are made to curve sketching, max-min problems, linear approximation, and l'Hopital's Rule. Also included are applications of the Intermediate Value Theorem and Mean Value Theorem.

Prerequisites: MATH-120 or satisfactory performance on placement test

Credit may not be received for both MATH-130 and MATH-131

MATH-132 Calculus II

3 Credits F, S

Study of integral calculus of a single variable. Included are techniques of integration and numerical methods of integration. Applications of the integral are made to computing area, volume, arc length and selected

topics.

Prerequisites: MATH-131

MATH-140 Introduction to Statistics

3 Credits F, S

Basic descriptive statistics, probability, hypothesis testing, correlation and regression. Statistical computer software is used to analyze data.

Prerequisites: MATH-118, MATH-110, MATH-115, or satisfactory performance on placement test

MATH-200 Introduction to Number Theory

3 Credits F

Emphasis is on mathematical proofs. Topics include properties of integers (such as odd, even, prime, etc.), division algorithm, least common multiples, greatest common divisors, binary operations and modular arithmetic.

Prerequisites: MATH-110

MATH-210 Introduction to Linear Algebra

3 Credits S

Emphasis on finite dimensional vector spaces and the algebra of matrices. Vector topics include n-dimensional vectors, dot product, norm, orthogonality, lines, planes, projections and cross products. Matrix topics include systems of equations, matrix operations, Gauss elimination, determinants, eigenvalues and eigenvectors.

Prerequisites: MATH-120

MATH-231 Calculus III

3 Credits F, S

Continuation of Calculus I and II. Included are Taylor polynomials, parametric equations, infinite series and polar coordinates. Also included is an introduction to multivariate calculus and multiple integrals.

Prerequisites: MATH-132

MATH-232 Calculus IV

3 Credits F, S

Introduction to multivariate calculus. Included are calculus of vector-valued functions and motion in space; limits, continuity, and partial derivatives of functions of several variables; vector fields, Green's Theorem, The Divergence Theorem and Stokes' Theorem.

Prerequisites: MATH-210 and MATH-231

MATH-300 Set Theory and Symbolic Logic

3 Credits S

The first part of the course is devoted to naive set theory and includes the algebra of sets, relations, functions and orders. The second part is devoted to logic, including truth tables and first-order predicate calculus.

Prerequisites: MATH-132 and MATH-200

MATH-310 Linear Algebra

3 Credits S

Fundamentals of linear algebra, including vector spaces, matrix algebra, linear transformations, and eigenvectors and eigenvalues.

Prerequisites: MATH-132, 210, and 300

Alternate years: offered 2015–2016

MATH-320 Modern Geometry

3 Credits F

Fundamental concepts of geometry, including projective and non-Euclidean geometries, with emphasis on the axiomatic method.

Prerequisites: MATH-132, MATH-210, and MATH-300, or permission of instructor

Alternate years: offered 2014–2015

MATH-331 Differential Equations

3 Credits F

Introduction to ordinary and partial differential equations. Includes solving first-order differential equations and linear differential equations with constant coefficients; series solutions of differential equations; and solving elementary partial differential equations.

Prerequisites: MATH-231

Alternate years: offered 2015–2016

MATH-341 Theoretical Statistics I	3 Credits	F
Fundamentals of probability and distribution theory. Includes probability theory, counting techniques, conditional probability, random variables, moments, moment generating functions, an introduction to multivariate distributions and transformations of random variables.		
<i>Prerequisites: MATH-231 or permission of instructor</i>		
<i>Alternate years: offered 2015–2016</i>		
MATH-342 Theoretical Statistics II	3 Credits	S
Introduction to mathematical statistics including convergence of sequences of random variables, central limit theorem, methods of estimation, hypothesis testing, linear models and analysis of variance.		
<i>Prerequisites: MATH-341</i>		
<i>Alternate years: offered 2015–2016</i>		
MATH-350 Numerical Analysis	3 Credits	S
Iterative techniques for solving non-linear equations, numerical differentiation and integration, and differential equations.		
<i>Prerequisites: MATH-231 and CSCI-105</i>		
<i>Alternate years: offered 2014–2015</i>		
MATH-360 History of Mathematics	3 Credits	I
Survey of the history of mathematics from ancient civilizations to the modern mathematics of the 19th century.		
<i>Prerequisites: MATH-132</i>		
<i>Alternate years: offered 2014–2015</i>		
MATH-410 Modern Algebra	3 Credits	F
Abstract algebra, with emphasis on algebraic structures such as groups, rings, integral domains and fields.		
<i>Prerequisites: MATH-231 and MATH-300 or permission of instructor</i>		
<i>Alternate years: offered 2015–2016</i>		
MATH-431, MATH-432 Introduction to Real Variables I, II	3 Credits each	F, S
Real number system, topology of Euclidean Spaces, theory of limits, differentiation, integration and infinite series.		
<i>Corequisites for MATH-431: MATH-232</i>		
<i>Prerequisites for MATH-431: MATH-300</i>		
<i>Prerequisites for MATH-432: MATH-431</i>		
<i>Alternate years: offered 2014–2015</i>		
MATH-450 Special Topics	3 Credits	F
Devoted to a subject chosen from among the various fields of mathematics in which regular courses are not offered. Possible topics include complex variables, number theory, topology, probability, and applied mathematics, as well as others. A student may take the course more than once, provided different topics are covered.		
<i>Prerequisites: permission of instructor</i>		
MATH-480 Internship	3 Credits	F, I, S
MATH-490 Independent Study	3 Credits	F, I, S
MATH-491 Research	3 Credits	F, I, S
MATH-499 Honors Project	3 Credits	F, I, S

Computer Science

CSCI-105 Introduction to Programming	4 Credits	F, S
This course is an introduction to computer programming using Java, a contemporary object-oriented language. Topics covered include the Java programming language and fundamental concepts for algorithm and software design. These include problem-solving methods, procedural and data abstraction, top-down modular design and proper programming style. Students gain experience using these skills to design, code, debug,		

and document computer programs. The course contains 3 credit hours of lecture and 2 hours of lab per week.

CSCI-140 Introduction to Web API Programming Using Facebook 3 Credits I

Introduction to using a web Application Programming Interface (API) to develop basic web services. Specific focus on using the Facebook API. Upon completion, the student will have learned the various methods supported by the Facebook API as well as how to use a scripting language to access those methods.

CSCI-200 Intermediate Programming 4 Credits S

This course will further develop and expand upon the topics introduced in CSCI-105. Topics will include object-oriented concepts such as inheritance, polymorphism and exception handling. Other topics include file I/O, multithreading and graphical user interfaces. The object-oriented programming language Java will be used to illustrate these topics. Problem solving, algorithm development, program design, and testing are emphasized. The course contains 3 credit hours of lecture and 2 hours of lab per week.

Prerequisites: CSCI-105

Corequisites: MATH-110

CSCI-205 Data Structures 3 Credits F

Advanced programming techniques will be covered with extensive use of recursion and dynamic data structures. Abstract data types including lists, stacks, queues, trees and hash tables are studied. Algorithms for searching and sorting are explored. The topics in this course provide an essential foundation for the further study of computer science. The object-oriented programming language Java will be used to illustrate these topics.

Prerequisites: CSCI-105

Corequisites: MATH-120

CSCI-225 Mathematical Structures for Computer Science 3 Credits S

Introduction to the fundamental mathematical concepts and structures used in computer science. Topics include propositional and predicate logic; sets, functions and relations; mathematical induction, counting principles and recurrences; trees and graphs. Topics implemented in C++, Java, Ruby, Python, or mathematical programming languages such as Mathematica or MATLAB.

Prerequisites: CSCI-205

Corequisites: MATH-131

CSCI-300 Software Practice 3 Credits F

Fundamental software development techniques in the context of small- to medium-scale applications. Topics include user-interface design and programming, fundamentals of graphics, use of APIs and software development tools, testing, and documentation. Extensive practice reading, writing and critiquing programs individually and in teams. Assignments programmed in C++, Java, Ruby or Python using appropriate programming APIs and libraries.

Prerequisites: CSCI-205 and CSCI-225

Alternate years: offered 2015–2016

CSCI-315 Artificial Intelligence 3 Credits S

General introduction to the field of Artificial Intelligence (AI). Discusses what AI is, surveys some of the major results in the field and looks at a few promising directions. Covers AI problem-solving, knowledge representation, reasoning, planning and machine learning in details with exercises that expose students to various AI systems and languages. Advanced topics such as natural language processing, vision, robotics and uncertainty are also covered at a survey level. Topics implemented in C++, Java, Ruby, Python, or mathematical programming languages such as Mathematica or MATLAB.

Prerequisites: CSCI-205, CSCI-225 and CSCI-320

Alternate years: offered 2015–2016

CSCI-320 Algorithm Analysis 3 Credits F

Impact of data structure design on algorithm design and performance. Topics include graph and tree algorithms, performance analysis, testing and classification of algorithms, and design techniques. Topics implemented in C++, Java, Ruby, Python, or mathematical programming languages such as Mathematica

or MATLAB.

Prerequisites: CSCI-205 and CSCI-225

Corequisites: MATH-131

Alternate years: offered 2015–2016

CSCI-330 Scripting Languages

3 Credits F

Detailed survey of the syntax, semantics and programming using modern scripting languages. These languages are commonly used to support enterprise for report generation, formatting data, and as glue between languages and legacy applications. Develops the discipline of modern programming techniques in a variety of application areas. Assignments programmed in Perl, Python, Ruby and other scripting languages.

Prerequisites: CSCI-105 or permission of instructor

Alternate years: offered 2014–2015

CSCI-340 Computer Architecture

3 Credits F

Introduction to computer systems and their organization. Topics include logic, gate, component and system level organization of generic computing systems. Bus architecture, memory organization, data representation and processor design are discussed. Includes an introduction to assembly language programming with appropriate laboratory assignments.

Prerequisites: CSCI-200, CSCI-205 and CSCI-225

Alternate years: offered 2014–2015

CSCI-410 Signal and Image Processing

3 Credits S

Signal and image processing are studied using modern signal and image processing function libraries to explore and program waveform analysis, convolution and correlation including FIR filters, spectrum analysis and composing linear systems. Image processing expands FIR filtering from one dimension to two dimensions and studies applications such as image contouring, edge detection, smoothing and noise removal. Programming is required using signal and image processing APIs.

Prerequisites: CSCI-320 or permission of instructor

Alternate years: offered 2015–2016

CSCI-430 Programming Paradigms

3 Credits I

Survey of approaches to problem solving using non-imperative language features from the functional, logical, object-oriented and concurrent paradigms. Laboratory projects in several different languages are required; typical languages covered include LISP, ML, Ruby, Perl, Python, MATLAB, Prolog, Mercury, Smalltalk, Eiffel, SR and Erlang.

Prerequisites: CSCI-105 or permission of instructor

Alternate years: offered 2014–2015

CSCI-435 Compiler Design

3 Credits S

Introduction to the theory and practice of programming language translation. Topics include lexical analysis, parsing, symbol tables, type-checking, code generation and an introduction to optimization. Assignments programmed in C++, Java, Ruby or Python. Compiler generation tools such as Lex/Flex, Yacc/Bison, ANTLR, ANTLRWorks or others are used to implement translator and compiler development.

Prerequisites: CSCI-200, CSCI-205 and CSCI-225

Alternate years: offered 2014–2015

CSCI-440 Operating Systems and Networking

3 Credits S

Principles of computer operating systems, including the user and programmer interfaces and the management of processes, memory, I/O devices, files and networks. Covers issues of scheduling, security, concurrency and distributed algorithms. Provides practical experience working with the UNIX system. Practical UNIX network design and network security are discussed. Assignments programmed in C++ and various scripting languages.

Prerequisites: CSCI-205, CSCI-225 and CSCI-340

Alternate years: offered 2014–2015

- CSCI-450 Special Topics** 3 Credits F, I, S
 Devoted to a subject chosen from among the various fields of computer science in which regular courses are not offered. Possible topics include graphics, natural language processing, scientific computing, web programming, GIS, parallel processing, robotics, simulation, as well as others. May take the course more than once, provided different topics are covered.
Prerequisites: based on topic or permission of instructor
Offered on demand
- CSCI-460 Seminar in Computer Science** 3 Credits F
 Discussion and presentation of papers by students and faculty on problems of current interest in computer science. Students do research for a semester on a computer science topic and write a 25-page paper. A presentation and oral defense of the paper are required. The capstone project is designed so that students can highlight what they have learned.
Prerequisites: senior standing in the computer science major or permission of the instructor
- CSCI-480 Internship** 3 Credits F, I, S
- CSCI-490 Independent Study** 3 Credits F, I, S
- CSCI-491 Research** 3 Credits F, I, S
- CSCI-499 Honors Project** 3 Credits F, I, S

Computer Information Systems

- CIS-103 Introduction to Computing** 3 Credits F
 Introduction to computing intended as a general education course for all students. Presents an overview of computing including history, operational principles, terminology, components, hardware and software trends, commercial benefits, social impact, legal and ethical aspects, consumer issues and typical software applications. Hands-on laboratory component introduces word processing, spreadsheets and databases. Does not count towards the computer science major or minor.
- CIS-250 Introduction to Information Systems** 3 Credits S
 General approach to the use of information systems in management, education and government. Topics include computer terminology, data communications, system design, computer ethics, human-to-computer interfaces and computer-based decision support systems. Credit may not be received for both BUS-330 and CIS-250.
Prerequisites: CIS-103 or permission of instructor
- CIS-325 Data Communications** 3 Credits S
 Concepts and applications of telecommunications technologies, networks and distributed information systems. Topics include various standards, protocols, architectures, requirements, communication techniques and management issues.
Prerequisites: CIS-250 or BUS-330 or permission of instructor
- CIS-350 Database Management** 3 Credits F
 Concepts and applications of database management systems. Topics include physical and logical data organization, various database models, query languages, design concerns, integrity and security, and management issues. MS Access is used for assignments.
Prerequisites: CIS-250 or BUS-330 or permission of instructor
- CIS-450 Software Engineering** 3 Credits F
 Introduction to the latest trends in software engineering, including program specification and requirements. Topics include problem solving techniques and software development. Particular emphasis on the design of large information systems projects.
Prerequisites: CIS-250 or BUS-330, or permission of instructor and one of the following courses: CSCI-105 or CSCI-200

CIS-460 Seminar in Information Systems

3 Credits S

Discussion, preparation and presentation of papers by students and faculty on topics of current interest in information systems. Capstone course for students majoring in information systems management.

Prerequisites: senior standing in the information systems management major or permission of instructor

CIS-480 Internship

3 Credits F, I, S

CIS-490 Independent Study

3 Credits F, I, S

CIS-491 Research

3 Credits F, I, S

MUSIC

MAJORS

Music

MINORS

Music

EMPHASES

Church Music

The music department at Bridgewater College serves the various needs of the academic community with the Carter Center for Worship and Music as the site of most musical activity. Students from all majors are invited to participate in one or more of the choral, instrumental or chamber ensembles, and private study (applied music) is available to singers and players. Students who choose music as a career may focus on performance and/or elect to gain certification to teach vocal or instrumental music in the public schools. An emphasis in church music is offered to music majors and supported by the College's strong choral tradition and outstanding rehearsal and performance facilities for organists. Internships in music and music-related fields can be arranged for those with special interests. Numerous courses offered by the music department meet the College's general education requirement in fine arts.

MUSIC MAJOR

Requires the bachelor of arts degree and consists of 48 credit hours including the following courses:

MUS-210	Voice Methods
MUS-211	Brass Methods
MUS-212	Woodwind Methods
MUS-213	String Methods
MUS-214	Percussion Methods
MUS-215	Keyboard Skills I
MUS-216	Keyboard Skills II
MUS-225	Theory and Aural Skills I
MUS-226	Theory and Aural Skills II
MUS-315	History of Music to 1750
MUS-316	History of Music since 1750
MUS-343	Music Arranging
MUS-345	Theory and Aural Skills III
MUS-390	Special Topics: Major Composers
MUS-420	Instrumental Conducting and Methods

-or-

MUS-421 Choral Conducting and Methods

8 credit hours in applied music in the major performance area (300-level)

4 credit hours in applied music in the minor performance area

6 credit hours of ensembles

Jury examinations are required each year in the student's major performance area. Two public performances in the major performance area are required each year. A senior recital is required.

Teacher Certification—Choral/Vocal

Consists of completing a music major in voice or keyboard and a minor in keyboard or voice as well as par-

ticipation in a choral ensemble during each year of residence and completion of the following professional education, music education, and field experience courses and requirements:

MUS-322	Choral Literature
MUS-422	Music Education in the Elementary School
MUS-436	Music Education in the Secondary School

Admission to the education department and passing scores on the PRAXIS Examinations

EDUC-140	Introduction to Foundations of American Education
EDUC-200	Psychology of Education and Development
EDUC-201	Field Experience I
EDUC-215	Diversity in the Classroom
EDUC-302	Field Experience II
EDUC-303	Field Experience III
EDUC-334	Literacy in the Content Area
EDUC-370	Classroom Management (Secondary)
EDUC-380	Practicum in Current Teaching Techniques
EDUC-450	Seminar in Educational Philosophies
EDUC-470	Professional Student Teaching

Teacher Certification—Instrumental

Consists of completing a music major in a band or orchestral instrument and a minor in a band, orchestral or keyboard instrument as well as participation in an instrumental ensemble during each year of residence, and completion of the following professional education, music education, and field experience courses and requirements:

MUS-323	Band Literature
MUS-422	Music Education in the Elementary School
MUS-436	Music Education in the Secondary School

Admission to the education department and passing scores on the PRAXIS Examinations.

EDUC-140	Introduction to Foundations of American Education
EDUC-200	Psychology of Education and Development
EDUC-201	Field Experience I
EDUC-215	Diversity in the Classroom
EDUC-302	Field Experience II
EDUC-303	Field Experience III
EDUC-334	Literacy in the Content Area
EDUC-370	Classroom Management (Secondary)
EDUC-380	Practicum in Current Teaching Techniques
EDUC-450	Seminar in Educational Philosophies
EDUC-470	Professional Student Teaching

MUSIC MINOR

Consists of 23–25 credit hours including the following courses:

MUS-225	Theory and Aural Skills I
MUS-226	Theory and Aural Skills II
MUS-315	History of Music to 1750
-or-	
MUS-316	History of Music since 1750

6 credit hours in applied music
4 credit hours of ensembles

And two additional courses chosen from the following:

MUS-232	American Music
MUS-233	Jazz in America
MUS-237	Introduction to Ethnomusicology

MUS-315	History of Music to 1750
MUS-316	History of Music since 1750
MUS-345	Theory and Aural Skills III
MUS-390	Special Topics: Major Composers
MUS-420	Instrumental Conducting and Methods
-or-	
MUS-421	Choral Conducting and Methods

A jury examination and a public performance are required during each semester of applied lessons.

CHURCH MUSIC EMPHASIS FOR MUSIC MAJORS

Consists of 19 credit hours including the following courses:

MUS-322	Choral Literature
MUS-340	Church Music
MUS-480	Internship -or- an equivalent experience

And the remaining credit hours chosen from the following courses:

MUS-362	Counterpoint
MUS-400	Composition
MUS-420	Instrumental Conducting
-or-	
MUS-421	Choral Conducting and Methods
MUS-422	Music Education in the Elementary School
MUS-490	Independent Study

COURSES

MUS-110 Music Fundamentals 3 Credits F, S

No musical experience required. An introduction to reading music: scales, key signatures, intervals, rhythms, instruments and score study. Hands-on musical activities include eurhythmics, singing, and the playing of simple percussive and melodic instruments.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

MUS-111 Class Keyboard 1 Credit F, S

This course is intended for students with no prior keyboard/piano experience. No music reading skills are necessary. Students learn the basics of fingering and hand position, reading music on the grand staff, and rhythmic notation. By the end of the class students will be able to play simple pieces.

MUC 113 Class Voice 1 Credit F, S

This introductory course is intended for students with little prior singing experience. No music reading skills are necessary. Students study posture, breathing, articulation and resonance. By the end of the class students will have basic singing skills.

MUS-210 Voice Methods 1 Credit S

Development of the singing voice: posture, breathing, vowels, consonants, intonation, placement and resonance; English, German, French and Italian diction; and choral and solo literature in several styles. Practical methods in teaching vocal music.

Prerequisites: music major or permission of instructor

MUS-211 Brass Methods 1 Credit S

Practical course in the teaching, playing and care of brass instruments.

Corequisites: MUS-214

Prerequisites: music major or permission of instructor

Alternate years: offered 2015–2016

MUS-212	Woodwind Methods	1 Credit	S
Practical course in the teaching, playing and care of woodwind instruments.			
<i>Prerequisites: music major or permission of instructor</i>			
<i>Alternate years: offered 2014–2015</i>			
MUS-213	String Methods	1 Credit	S
Practical course in the teaching, playing and care of string instruments.			
<i>Prerequisites: music major or permission of instructor</i>			
<i>Alternate years: offered 2014–2015</i>			
MUS-214	Percussion Methods	1 Credit	S
Practical course in the teaching, playing and care of percussion instruments.			
<i>Corequisites: MUS-211</i>			
<i>Prerequisites: music major or permission of instructor</i>			
<i>Alternate years: offered 2015–2016</i>			
MUS-215	Keyboard Skills I	1 Credit	F
Scales in all keys, chord progressions, harmonization of melodies and sight reading.			
<i>Prerequisites: two semesters of applied keyboard at the 200-level or a passing score on the keyboard diagnostic exam</i>			
MUS-216	Keyboard Skills II	1 Credit	S
A continuation of keyboard skills study that prepares students to take the keyboard proficiency examination.			
<i>Prerequisites: MUS-215</i>			
MUS-220	Introduction to Western Music	3 Credits	F, S
Listening and learning to recognize forms, styles, composers and works in Western music from the early Christian era to the present.			
<i>Corequisites: PDP-150 or PDP-350</i>			
<i>General education: fine arts and music</i>			
MUS-225	Theory and Aural Skills I	3 Credits	F
Diatonic harmony, voice leading and phrase structure. Aural skills include sight singing and melodic dictation.			
<i>Prerequisites: MUS-110</i>			
MUS-226	Theory and Aural Skills II	3 Credits	S
Continuation of harmony and voice leading with an exploration of secondary functions. Analyses of classical forms including sonata and rondo. Aural skills include sight singing and melodic dictation.			
<i>Prerequisites: MUS-225</i>			
MUS-232	American Music	3 Credits	I
American musical life from Colonial times to the present. Samplings include music following both the European classical tradition (operatic, choral, symphonic, etc.) and America's popular tradition (ragtime, jazz, rock, etc.). Specific topics in the general areas are treated in detail by individual research.			
<i>Corequisites: PDP-150 or PDP-350</i>			
<i>General education: fine arts and music</i>			
MUS-233	Jazz in America	3 Credits	I
Increases the appreciation and enjoyment of jazz. Examines the history and techniques of American jazz by lecture, demonstration, and audio and video recordings. Highlights differences in the music elements for the major jazz styles. During the third week of the course, the class travels to a significant jazz location (possibly New Orleans, Chicago, New York) to experience live jazz and culture pertaining to it.			
<i>Corequisites: PDP-150 or PDP-350</i>			
<i>General education: fine arts and music</i>			

- MUS-237 Introduction to Ethnomusicology** 3 Credits I
A survey of musical practices from around the world and a study of the roles that music making plays within a cultural context. Music, culture and the connection between the two are understood through lecture, recordings, video, and fieldwork involving observation and interview.
Corequisites: PDP-150 or PDP-350
General education: fine arts and music
- MUS-315 History of Music to 1750** 3 Credits F
History of Western musical style from the early Christian era to 1750 including medieval, Renaissance and Baroque eras. Listening and reading assignments focus on specific composers and works as they relate to historical trends in musical style.
Prerequisites: MUS-110
General education: fine arts and music
- MUS-316 History of Music since 1750** 3 Credits S
History of Western musical style including Classical and Romantic eras as well as music of the 20th century. Listening and reading assignments focus on specific composers and works as they relate to historical trends in musical style.
Prerequisites: MUS-110
General education: fine arts and music
- MUS-322 Choral Literature** 2 Credits S
Choral literature, styles, forms and voicings from the Renaissance to the present. Historical considerations and performance practices are discussed, and criteria for selection of music for choirs is developed.
Alternate years: offered 2015–2016
- MUS-323 Band Literature** 2 Credits F
A study of the literature of the wind band from 1500 to the present day. Standard repertoire, performance practice and conducting considerations are discussed in order to develop skills for selecting appropriate music for middle school through advanced high school bands.
Alternate years: offered 2015–2016
- MUS-329 Keyboard Pedagogy** 3 Credits F
Separate studies of piano and organ teaching regarding teacher qualifications, teaching techniques, graded music courses, professional ethics and recital planning.
Offered on demand
- MUS-340 Church Music** 3 Credits F
Church music, with studies in hymnology, administration, graded choirs, choral techniques, choral literature and worship.
Offered on demand
- MUS-343 Music Arranging** 3 Credits S
Band and orchestral instruments and voices, and their classifications, ranges and general use. Includes writing and arranging music for vocal and instrumental solos and ensembles.
Prerequisite or corequisite: MUS-226
Alternate years: offered 2015–2016
- MUS-345 Theory and Aural Skills III** 3 Credits F
Exploration of chromatic harmony, modal mixture, the Neapolitan chord, augmented sixth chords, and musical forms including variations and fugue. Introduction to post-tonal harmony. Aural skills include sight singing and melodic dictation.
Prerequisites: MUS-226
- MUS-346 Advanced Theory** 3 Credits S
Topics include enharmonic reinterpretation, chromatic modulation, altered dominants, synthetic scales, set

theory and twelve-tone serialism.

Prerequisites: MUS-345

Offered on demand

MUS-362 Counterpoint 2 Credits S

Introduction to the art of composing polyphonic music. Includes exploration of 16th century and 18th century styles.

Prerequisites: MUS-226

Offered on demand

MUS-390 Special Topics: Major Composers 2 Credits S

Studies focused on one or more great composers. Analyses of scores and recordings as well as historical documents such as reviews, interviews, memoirs and manuscripts. May be taken more than once for credit if the featured composers are different each time.

Prerequisites: MUS-110

MUS-400 Composition 2 Credits S

Study and practice of musical composition, both traditional and modern.

Prerequisites: MUS-226

Offered on demand

MUS-420 Instrumental Conducting and Methods 3 Credits F

Elements of instrumental conducting, use of the baton, score reading, the organization and administration of ensembles, and the conducting of suitable literature for those organizations and combined instrumental and choral ensembles.

Prerequisites: MUS-226

Alternate years: offered 2014–2015

MUS-421 Choral Conducting and Methods 3 Credits F

Elements of choral conducting, use of the baton, score reading, the organization and administration of ensembles, and the conducting of suitable literature for those organizations and combined choral and instrumental ensembles.

Prerequisites: MUS-226

Alternate years: offered 2015–2016

MUS-422 Music Education in the Elementary School 3 Credits F

For future music teachers. Introduction to the melodic and harmonic instruments used in the elementary school. Selection and presentation of songs by rote and note, rhythmic activities, creative activities and listening materials for grades K–6.

Prerequisites: MUS-226

Alternate years: offered 2015–2016

MUS-436 Music Education in the Secondary School 3 Credits F

The methodology and philosophy of teaching music in the secondary school including general music, music appreciation, music theory and performing groups.

Prerequisites: MUS-226

Alternate years: offered 2014–2015

Performing Ensembles

Ensemble members earn 1 credit per semester, and are expected to commit themselves to participation in the ensemble for the full academic year. A maximum of 6 credits in ensemble participation may be applied toward graduation. Students from all majors are eligible for membership in the performing ensembles.

MUS-441 Concert Choir 1 Credit F,S

A select choral ensemble of about 45 singers who rehearse a wide variety of choral literature in preparation for the ensemble's various concerts. Serves as the College's ceremonial chorus.

Prerequisites: audition required

MUS-442 Chorale

1 Credit F, S

An ensemble of about 25 advanced singers. Appears on- and off-campus throughout the entire year in a variety of programs. Members of the Chorale are required to be members of the Concert Choir (MUS-441). Membership is determined by auditions, which are held in the spring for the following year.

Prerequisites: audition required

MUS-443 Symphonic Band

1 Credit F, S

Performs a wide variety of concert band literature on- and off-campus. Instrumental music majors are required to enroll in this ensemble.

Prerequisites: previous instrumental music experience

MUS-444 Jazz Ensemble

1 Credit F, S

Performs a wide variety of jazz literature on- and off-campus. Members who are instrumental music majors are required to also be members of Symphonic Band (MUS-443).

Prerequisites: audition required

MUS-445 Chamber Music Ensembles

1 Credit F, S

Small groups of brass, strings, guitars, percussion, woodwinds, vocalists, handbells and mixed ensembles. Groups perform on- and off-campus.

Prerequisites: permission of instructor

MUS-446 JMU Strings

1 Credit F, S

Bridgewater string players may audition for ensembles at James Madison University.

Prerequisites: audition required

MUS-447 Topics for Ensembles in Context

1 Credit S

In order to fulfill the three-credit fine arts requirement through music ensemble participation, students enroll in a large ensemble (MUS-441: Concert Choir; MUS-442: Chorale; MUS-443: Symphonic Band; or MUS-444: Jazz Ensemble) for consecutive fall and spring semesters, earning two credits. During the spring semester of their ensemble participation, students also enroll in MUS-447: Topics for Ensembles in Context. In this course students further study the repertoire and musical techniques that they experience from a performer's perspective in their ensembles. Repertoire will be examined within historical, cultural, and theoretical contexts with an emphasis on engaging critical thinking skills: analysis, interpretation, and critical listening. Coursework includes critical reviews of performances and repertoire, reflections on musical technique, and discussions relating to musical interpretation and ensemble participation. Course may be taken more than once provided different topics are covered.

Corequisites: PDP-150 or PDP-350

General education: fine arts and music

Applied Music

Applied music lessons are taught individually and are scheduled by the instructor. They are worth 1 credit per semester and may be repeated for credit. There is a fee to register.

Anyone may register for the 200-level courses. The expectation is that the student will practice at least three hours per week. The 300-level courses are for the major performance area of a student majoring in music. The expectation is that the student will practice at least six hours per week. Non-majors may register at the 300-level by auditioning and permission from the instructor.

MUS-201 or MUS-301	Piano
MUS-202 or MUS-302	Organ
MUS-203 or MUS-303	Voice
MUS-204 or MUS-304	Woodwind
MUS-205 or MUS-305	Brass
MUS-206 or MUS-306	Percussion
MUS-207 or MUS-307	Strings
MUS-208 or MUS-308	Guitar

F = Fall Semester I = Interterm S = Spring Semester

MUS-480	Internship	3 Credits	F, I, S
MUS-490	Independent Study	3 Credits	F, I, S
MUS-491	Research	3 Credits	F, I, S
MUS-499	Honors Project	3 Credits	F, I, S

PHILOSOPHY & RELIGION

MAJORS

Philosophy and Religion

MINORS

Philosophy and Religion

Peace Studies

PRE-PROFESSIONAL PROGRAMS

Ministry

Philosophy and religion is an ideal major for the liberal arts student. In all philosophy and religion courses, students see how logical tools and ethical principles help to bring together, and make personal, the variety of knowledge gained in other disciplines. Philosophy explores the “big questions” whose answers shape ideas of self, reality and meaning in life. Religion explores how those same ideas relate to ultimate concerns that are integral to past and present cultures, beliefs and practices. Study in philosophy and religion illuminates the historical and contemporary content of Western and Eastern cultures and is excellent preparation for developing a philosophy of life and for graduate school in any humanities field where both a clear understanding of intercultural history and effective skills in research and argumentation are requisites.

Career opportunities for the student going into ministry, religious education or graduate school in philosophy or religion begin with completing the major in the department of philosophy and religion leading to the bachelor’s degree.

Pre-Professional Programs

The department of philosophy and religion offers pre-professional preparation for ministry that qualifies one as an applicant for admission to a theological seminary or university divinity school to pursue a master of arts or a master of divinity degree. Such a master’s degree is prerequisite for ordination to the ministry in most denominations.

The degree from Bridgewater College in philosophy and religion also qualifies one as an applicant for admission to master’s degree programs in philosophy, in religion, in peace and justice studies or in other humanities disciplines. The degree also qualifies one for lay leadership in religious education or for doing church work. The degree in philosophy and religion also has shown itself to have played an excellent role in preparation for law, management, educational administration, international relief service, education and music careers. In fact, majors in philosophy and religion have entered each of those varied fields. Graduates have been accepted into prestigious graduate schools such as American University, Bethany Theological Seminary, Candler School of Theology at Emory University, Duke University Divinity School, Oxford University, Princeton Theological Seminary and Union Theological Seminary (New York).

PHILOSOPHY AND RELIGION MAJOR

Requires the bachelor of arts degree. Consists of not less than 33 credits with a minimum of 12 credits each from philosophy and religion, the remaining credits composed of courses approved by the department and chosen in individualized consultation with the academic advisor. In their senior year, majors must take the philosophy and religion seminar (either as PHIL-430 or REL-430).

PHILOSOPHY AND RELIGION MINOR

Consists of 18 credit hours selected from philosophy and religion courses in consultation with the advisor in the minor and based on the student's interests, graduate school plans, or professional plans with regard to the following areas: world religions, theology, philosophy, biblical studies, or ethics.

World Religions

REL-250	Reel-World Religions: Inter-Religious Encounters in Contemporary Film
REL-340	Religions of the Near East
REL-350	Religions of the Far East

Theology

REL-331W	Christian Beliefs
REL-332W	Reformation Theology
REL-333W	Contemporary Christian Thought

Philosophy

PHIL-228EW	Philosophy of Popular Culture
PHIL-310	Logic
PHIL-331EW	The Classical Mind
PHIL-332W	Modern Mind
PHIL-333W	Contemporary Philosophy
PHIL-335	Philosophy of Religion
PHIL-337W	Philosophy of Science
PHIL-420W	Post-Modernism

Biblical Studies

REL-310	Jesus in History and Culture
REL-325X	The Uses and Abuses of Christian Scripture
REL-326	Readings in Hebrew Scriptures
REL-327W	Biblical Themes in Literature

Ethics

PHIL-225E	Contemporary Moral and Political Problems
PHIL-235E	Bioethics
PHIL-320E	Professional Ethics
PHIL-322EW	Ethics and Identity
PHIL-340EW	Environmental Ethics
REL-400	Peace Studies Seminar
REL-420EW	Christian Social Ethics

PEACE STUDIES MINOR

Addresses the continuing need for intellectually substantial, morally grounded and practically effective alternatives to socially conditioned structures of conflict and violence. Consists of 18 credit hours including the following courses:

REL-335E	Christian Perspectives on Violence and Peace
REL-420EW	Christian Social Ethics
SOC/PHIL-367	Conflict Transformation

And three of the following courses:

PHIL-225E	Contemporary Moral and Political Problems
PHIL-490	Independent Study
REL/HIST-317	History of the Christian Church
REL-319	History of the Church of the Brethren

REL-340	Religions of the Near East
REL-400	Peace Studies Seminar
REL-490	Independent Study
PSCI-335W	Peace, War and World Politics
PSCI-356	United States Foreign Policy
PSCI-420W	International Law and Organization
SOC-361	Development and Underdevelopment in the Modern World

Courses listed on a student's plan of the major in philosophy and religion are excluded.

GENERAL EDUCATION

The College's general education requirement of courses in philosophy or religion and in world cultures can be met by courses in the department of philosophy and religion. See the course's description in the catalog to discover the category to which a particular course applies.

COURSES

Philosophy

PHIL-225E Contemporary Moral and Political Problems 3 Credits I

Examines pressing moral and philosophical questions that have become major political issues of our day. Problems considered may include abortion, sexism, racism, drugs, privacy and censorship, civil disobedience and others of interest to the group.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and ethical reasoning

Alternate years: offered 2015–2016

PHIL-228EW Philosophy of Popular Culture 3 Credits I

A systematic philosophical analysis of the major entertainment media of modern American culture aimed at determining the values reflected in and arising from popular movies, television, comics, music and literature. Students select and research materials from the most popular national media, assessing the reasons for their extreme popularity.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion, ethical reasoning and writing intensive

Offered on demand

PHIL-235E Bioethics 3 Credits I

Confronts a number of modern scientific and ethical problems including abortion, genetic testing, genetically modified plants and animals, stem cells, gene therapy, research on humans and physician-assisted suicide. Biology and biotechnology often confound our notions of right and wrong, and what ethical behavior is.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and ethical reasoning

Alternate years: offered 2015–2016

PHIL-300 Topics in Philosophy and Religion (Cross-listed as REL-300) 3 Credits F

Examines fundamental questions in metaphysics, epistemology and ethics from both a philosophical and a theological perspective. Introduces methods and subjects of study in the disciplines of philosophy and religion. Designed and intended for students who are considering a major or minor in philosophy and religion.

Corequisites: PDP-150 or PDP-350

General education: philosophy or religion

- PHIL-310 Logic** 3 Credits F, S
Skills of reasoning for solving problems found in ordinary language, deductive and inductive formats, and in common fallacies. A brief introduction to symbolic logic, scientific method and probability.
Prerequisites: ENG-110
General education: philosophy or religion
- PHIL-320E Professional Ethics** 3 Credits F, S
Pressing issues confronting professionals in a technological era. Utilizing the insights of philosophical and religious ethics, the course examines the responsibilities of the professional person in business, medicine, law, education, the ministry and other fields. Problems considered include confidentiality, accountability, whistleblowing, governmental regulation and ethical codes.
Prerequisites: PDP-150 or PDP-350, ENG-110 and junior or senior standing
General education: philosophy or religion and ethical reasoning
- PHIL-322EW Ethics and Identity** 3 Credits S
Introduces ethical issues related to gender, race and class. Surveys the development of identity-related critiques of traditional ethical theories and examines how the concept of "the good life" is related to identity.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: philosophy or religion, ethical reasoning and writing intensive
Alternate years: offered 2014–2015
- PHIL-328 Germanic Cultures** 3 Credits I
Analyzes Germanic culture contributions by traveling to Germany, Austria and Switzerland. Language, philosophical influences and theological developments determine the itinerary for the course. Modern history from 16th century to the present suggest sites to be visited.
Prerequisites: PDP-150 or PDP-350
General education: world cultures
Offered on demand
- PHIL-329 Classical Cultures: Greece and Italy** 3 Credits I
Analyzes the historical and cultural roots of Western culture with special concern for the religious and philosophical heritage. Fifteen days of travel are combined with the academic study of the historical sites, literature, art and concepts of these extraordinary ancient civilizations.
Prerequisites: PDP-150 or PDP-350
General education: world cultures
Alternate years: offered 2015–2016
- PHIL-331EW The Classical Mind** (Cross-listed as PSCI-331EW) 3 Credits F
The primary works of Plato and Aristotle form the foundation for the development of certain issues traced into the medieval era. The original contributions of major medieval thinkers, especially Augustine and Aquinas, are assessed.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: philosophy or religion, ethical reasoning and writing intensive
Alternate years: offered 2015–2016
- PHIL-332W The Evolution of the Modern Mind** 3 Credits S
The primary works of certain major philosophers who have shaped our intellectual history. Emphasis on Descartes, Spinoza, Leibnitz, Hume, Locke, Kant and Hegel. Basic philosophical turning-points in the modern history of our civilization are highlighted.
Prerequisites: PDP-150 or PDP-350 and ENG-110
General education: philosophy or religion and writing intensive
Alternate years: offered 2015–2016
- PHIL-333W Contemporary Philosophy** 3 Credits F
Outstanding philosophical concerns of this milieu beginning with the Vienna Circle and continuing to the present. Focus is on the primary works of influential philosophers from analytical philosophy, language analysis, and important linguistic arguments from writers in other schools of thought and academic disci-

plines. Representative thinkers may include Wittgenstein, Ayer, Quine and Rorty.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and writing intensive

Alternate years: offered 2014–2015

PHIL-335 Philosophy of Religion

3 Credits I

Concepts and problems associated with theistic faith in the West. Areas of inquiry and reflection include the relation of philosophy to religion, arguments for and against the existence of God, the problem of evil, the nature of religious experience (including miracles and mystical experience), the purpose and meaning of religious language, and the immortality of the soul.

Prerequisites: ENG-110

General education: philosophy or religion

Offered on demand

PHIL-337W Philosophy of Science

3 Credits F

Interaction of philosophy and science that affects human understanding of the physical universe, life, the mind and human values. Investigations are made into methods of research, physical evidence defining our universe, the principle of relativity, the uncertainty principle, predictive knowledge and related topics.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and writing intensive

PHIL-340EW Environmental Ethics

3 Credits S

Examines the historical development of environmental ethics in the U.S., major ethical approaches to contemporary environmental issues, and the application of those theories to particular topics such as ecojustice, biodiversity and global warming. Readings are drawn from a wide range of sources, from ancient scripture to current news reports.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion, ethical reasoning and writing intensive

Alternate years: offered 2015–2016

PHIL-367 Conflict Transformation (Cross-listed as SOC-367)

3 Credits S

A broad introduction to the field, which familiarizes students with conflict and practical approaches to its transformation. Personal communication and conflict styles, negotiation skills, interpersonal mediation, and facilitation of group decision-making and problem-solving strategies are examined. Participation in discussions, exercises, analyses, role-plays and simulations frame the course. In addition to the regularly scheduled meeting times, one Saturday session is included.

Prerequisites: SOC-101

PHIL-420W Postmodernism

3 Credits S

Analyzes philosophically the eras of the 20th century considered “modernism” and “postmodernism.” Some key ideas of relativity, literary criticism, modern warfare, social norms and ethical values from art, literature, sciences, social sciences and philosophy. Authors from the movements called existentialism, structuralism, deconstructionism, feminism, pragmatism, et al.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and writing intensive

Alternate years: offered 2014–2015

PHIL-430 Senior Seminar (Cross-listed as REL-430)

3 Credits F

Intensive study, research and discussion in a field of current interest in philosophy and religion. Required senior seminar for philosophy and religion majors.

Prerequisites: minimum of 18 credit hours of course work in the department of philosophy and religion

PHIL-480 Internship

3 Credits F, I, S

PHIL-490 Independent Study

3 Credits F, I, S

PHIL-491 Research

3 Credits F, I, S

PHIL-499 Honors Project

3 Credits F, I, S

Religion

REL-210X The Study of Religious Traditions 3 Credits F

Introduces students to the academic study of religion, the basic concepts that make up religious world views and the major world religions including Judaism, Christianity, Islam, Hinduism, Buddhism, Chinese traditions, Japanese traditions and secular humanism. A handful of films will be screened that illustrate religious concepts, practices and challenges.

Prerequisites: ENG-110

General education: philosophy or religion and experiential learning

REL-220 New Testament 3 Credits F, S

Christian beginnings with emphasis upon the literature and thought of the early Christian community. Introduces information and skills necessary for examining the New Testament documents and their relevance in the history of Western culture.

Prerequisites: ENG-110

General education: philosophy or religion

REL-250 Reel-World Religions: Inter-Religious Encounters in Contemporary Film 3 Credits I

Studies six contemporary films that depict encounters between members of several world religions including Native American, Christian, Buddhist, Jewish, Shinto, Hindu and Muslim traditions. Explores inter-religious expressions from curiosity to resentment and hostility to reconciliation within the context of historical, political and inter-cultural crises and evolutions.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: world cultures

REL-300 Topics in Philosophy and Religion (Cross-listed as PHIL-300) 3 Credits F

Examines fundamental questions in metaphysics, epistemology and ethics from both a philosophical and a theological perspective. Introduces methods and subjects of study in the disciplines of philosophy and religion. Designed and intended for students who are considering a major or minor in philosophy and religion.

Corequisites: PDP-150 or PDP-350

General education: philosophy or religion

REL-310 Jesus in History and Culture 3 Credits S

The person and significance of Jesus as understood in his own time and throughout history. Examines literature, art and film to appreciate how the perceptions of Jesus change and develop within various social and historical contexts.

Prerequisites: ENG-110

General education: philosophy or religion

Alternate years: offered 2015–2016

REL-312 Archaeology and the Bible 3 Credits I

Archaeology as it relates to biblical materials, especially to the Old Testament. An examination of findings and discoveries of the past two centuries and their relationship to biblical religion and faith, and to the history of the Hebrew people.

Prerequisites: ENG-110

Alternate years: offered 2014–2015

REL-315 The Lands of the Bible 3 Credits I

The history, sociology and archaeology of Palestine as these disciplines relate to the literature, religions and cultures of ancient Hebrew society and early Christianity. Following the first week of study on campus, two weeks are devoted to visiting sites of biblical and religious importance in Israel and Jordan.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: world cultures

Alternate years: offered 2015–2016

REL-317 History of the Christian Church (Cross-listed as HIST-317) 3 Credits F

Introduction to Christianity, surveying all three historical traditions: Roman Catholic, Eastern Orthodox

and Protestant. Special emphasis on social and political structures of the church, and issues in theology and ethics from the Apostolic Age to the present.

Prerequisites: ENG-110

General education: philosophy or religion

Alternate years: offered 2015–2016

REL-319 History of the Church of the Brethren 3 Credits I

From its beginning to the present day. Emphasis on understanding the church today in light of its historical development, and attention to Brethren doctrine and ideals.

Prerequisites: ENG-110

Offered on demand

REL-325X The Uses and Abuses of Christian Scripture 3 Credits S

Explores the power of biblical interpretations to influence, control and mobilize readers. Focuses on the evolution of basic interpretive rules and assumptions about how to interpret biblical passages, and also the changing contexts and objectives of biblical interpretation from Jesus' readings of the Hebrew Bible through scholarly approaches that developed post-Enlightenment. Primary sources include divergent interpretations of passages, famous sermons and political speeches.

Prerequisites: ENG-110

General education: philosophy or religion and experiential learning

Alternate years: offered 2015–2016

REL-326 Readings in the Hebrew Scriptures 3 Credits S

History, literature and faith of the Hebrew people as revealed in the study of specific topics in Hebrew Scriptures. Designated material in the Hebrew Bible is examined through the insights of literary analysis, archaeology, anthropology and historical criticism with special emphasis on interpretive methods.

Prerequisites: ENG-110

General education: philosophy or religion

REL-327W Biblical Themes in Literature (Cross-listed as ENG-327) 3 Credits S

Studies literature inspired by the Bible. Reading and writing about how religious ideas are expressed in literature, how authors use specific biblical stories in their novels, and how various authors may differ in their retellings of the same story.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: a course in literature and writing intensive

Alternate years: offered 2014–2015

REL-331W Christian Beliefs 3 Credits F

Introduction to Christian theology. The central doctrines of the Christian faith examined in the context of their historical development. Various interpretations of those doctrines in contemporary theology are evaluated.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and writing intensive

Alternate years: offered 2014–2015

REL-332W Reformation Thought 3 Credits F

The formative period of thought for contemporary Catholic and Protestant Christianity. Thinkers include representative scholastics, the Humanists, Luther, Zwingli and the Anabaptists, Calvin, and the Catholic Reform expressed in the Councils from Constance to Trent.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and writing intensive

Alternate years: offered 2014–2015

REL-333W Contemporary Christian Thought 3 Credits S

Critical reading and discussion of writings of representative, contemporary, academic theologians (including Barth, Bonhoeffer, Cone, Gutiérrez, Küng and Schüssler Fiorenza) with a view to developing an

awareness of basic issues and patterns in present theological thinking.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and writing intensive

Alternate years: offered 2014–2015

REL-335E Christian Perspectives on Violence and Peace 3 Credits I

Biblical, historical and social attitudes toward violence and peace including a study of political, social and scientific factors that affect violence at the interpersonal, and through war at the international, levels of human experience. A seminar approach is used.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion and ethical reasoning

REL-340 Religions of the Near East 3 Credits F

Major living religions of the Near East stressing a sympathetic understanding of the illumination that is provided the adherents of each for daily living, as well as some of the cultural expressions of each in those societies where they flourish. Religions studied include Judaism, Christianity and Islam.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: world cultures

Alternate years: offered 2015–2016

REL-350 Religions of the Far East 3 Credits F

Major living religions of the Far East stressing a sympathetic understanding of the illumination that is provided the adherents of each for daily living, as well as some of the cultural expressions of each in those societies where they flourish. Religions studied include Hinduism, Buddhism and native Chinese religion.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: world cultures

Alternate years: offered 2014–2015

REL-365 Foundations of American Religion (Cross-listed as HIST-365) 3 Credits S

Survey of American religious history with a focus on origins and diversity. Major topics include Puritanism, Revivalism, Mormonism, Methodism, African American religion, fundamentalism, Catholicism, Judaism and religion during the Cold War.

Alternate years: offered 2015–2016

REL-400 Peace Studies Seminar 3 Credits S

A brief history of peace studies in the United States, current issues in peace studies, studies in the philosophy of civilization, the roles of violence and nonviolence in protest and revolution, and the roles of church and state in peacemaking.

Prerequisites: ENG-110

Offered on demand

REL-420EW Christian Social Ethics 3 Credits S

Personal and social ethical issues from the perspective of contemporary writings of Christian ethicists. Normative and contextual approaches. An examination of the relationship between religion and culture.

Prerequisites: PDP-150 or PDP-350 and ENG-110

General education: philosophy or religion, ethical reasoning and writing intensive

Alternate years: offered 2015–2016

REL-430 Senior Seminar (Cross-listed as PHIL-430) 3 Credits F

Intensive study, research and discussion in a field of current interest in philosophy and religion. Required senior seminar for philosophy and religion majors.

Prerequisites: minimum of 18 credit hours of course work in the department of philosophy and religion

REL-480 Internship 3 Credits F, I, S

REL-490 Independent Study 3 Credits F, I, S

REL-491 Research 3 Credits F, I, S

REL-499 Honors Project 3 Credits F, I, S

PHYSICS

MAJORS

Physics

Applied Physics

- Engineering Physics
- Physics and Technology
- Physical Science

Physics and Mathematics

MINORS

Physics

PRE-PROFESSIONAL PROGRAMS

Engineering

DUAL-DEGREE PROGRAMS

Engineering—The George Washington University and Virginia Tech

Three different majors in the physics department provide opportunities for students to study the theoretical and applied nature of physics from within a broad liberal arts context. The courses of study in these majors prepare students for a variety of challenging and rewarding careers, not only in the fields of science and technology, but also in education, engineering and architecture, as well as careers emphasizing advanced analytical skills, such as business management, law, medical professions and ministry.

The physics major prepares a student for further study in graduate school or for a career in industry. A number of our graduates have used this route to prepare for study towards a master's degree in engineering. Others have entered doctoral studies and subsequent vocations in higher education or research. Still others have gone directly into technical jobs in business such as electronics technicians or computer specialists.

The physics and mathematics major is a broad course of study in both physics and mathematics, designed especially for students interested in high school teaching. Upon completion of this program and the necessary education courses, a graduate can become certified to teach both physics and mathematics in high school.

The applied physics major is for students interested in technical careers. Depending on their interests, students will select one of three tracks within this major. The engineering physics track is designed for students preparing for further study in engineering or completing a dual-degree engineering program with The George Washington University or Virginia Tech. Students interested in combining interests in physics, electronics and computer science should complete the physics and technology track. The physical science track gives a student a broad background in both physics and chemistry.

The department also offers students the opportunity to minor in physics, which can be a unique way of blending together an interest in traditionally non-science areas with an interest in physics. For example, students interested in careers in technical writing, patent law, philosophy or religion can combine studies in the humanities with physics. In addition, the department offers several courses in astronomy and physics that meet the general education needs of non-science majors.

PHYSICS MAJOR

For students planning on graduate study in physics or engineering or a physics-related career in industry.

Required courses:

PHYS-221	General Physics I
PHYS-222	General Physics II
PHYS-305	Electronics
PHYS-308	Modern Physics
PHYS-311	Classical Mechanics I
PHYS-331	Electricity and Magnetism I
PHYS-345	Experimental Physics
PHYS-460	Seminar
<i>-or-</i>	
PHYS-499	Honors Project
MATH-131	Calculus I
MATH-132	Calculus II
MATH-231	Calculus III
MATH-232	Calculus IV

And 9 additional credits from PHYS courses numbered 300 or above.

APPLIED PHYSICS MAJOR

Primarily for students interested in careers in engineering or technology. Students completing dual-degree programs may transfer appropriate engineering courses for physics courses at the discretion of the department and the vice president and dean for academic affairs.

Required courses:

PHYS-221	General Physics I
PHYS-222	General Physics II
PHYS-308	Modern Physics
PHYS-311	Classical Mechanics I
PHYS-460	Seminar
<i>-or-</i>	
PHYS-499	Honors Project
MATH-131	Calculus I
MATH-132	Calculus II

Students must select additional courses as outlined in one of the following tracks:

Track 1—Engineering Physics

Cannot be taken as a dual major with a major in physics.

Required courses:

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
PHYS-312	Classical Mechanics II
MATH-231	Calculus III
MATH-232	Calculus IV

And four additional PHYS courses numbered 300 or above.

Track 2—Physics and Technology

Cannot be taken as a dual major with a major in computer science or physics.

Required courses:

CSCI-105	Introduction to Programming
CSCI-200	Intermediate Programming

CSCI-205	Data Structures
PHYS-305	Electronics
PHYS-306	Digital Electronics

And three additional courses numbered 300 or above chosen from the departments of Physics and Mathematics and Computer Science (at least one from each department).

Track 3—Physical Science

Cannot be taken as a dual major with a major in chemistry or in physics.

Required courses:

CHEM-161	General Chemistry I
CHEM-162	General Chemistry II
MATH-231	Calculus III
MATH-232	Calculus IV

And 15 additional credit hours in PHYS and CHEM courses numbered 300 or above (at least six from each department).

PHYSICS AND MATHEMATICS MAJOR

Primarily for students wishing to gain licensure in teacher education. Cannot be taken as a dual major with the major in mathematics or physics.

Required courses in physics:

PHYS-221	General Physics I
PHYS-222	General Physics II
PHYS-305	Electronics
-07-	
PHYS-306	Digital Electronics
PHYS-308	Modern Physics
PHYS-311	Classical Mechanics I
PHYS-345	Experimental Physics
PHYS-460	Seminar
-07-	
PHYS-499	Honors Project

Required courses in mathematics:

MATH-131	Calculus I
MATH-132	Calculus II
MATH-231	Calculus III
MATH-232	Calculus IV
MATH-300	Set Theory and Symbolic Logic
MATH-320	Modern Geometry
MATH-360	History of Mathematics

And three additional credits in mathematics from courses numbered 300 or above for a total of 24 credits.

PHYSICS MINOR

Required courses:

MATH-131	Calculus I
MATH-132	Calculus II
PHYS-221	General Physics I
PHYS-222	General Physics II
PHYS-308	Modern Physics

And three additional PHYS courses numbered 300 or above.

COURSES

- PHYS-110 Introductory Astronomy** 4 Credits F, S
 Helps students appreciate and understand their physical environment and the methods of physical science through the study of basic astronomy. Topics include the history of astronomy; motion of celestial objects; planets of the solar system; birth, life and death of stars; galaxies; and cosmology. Three hours in class and two hours in lab per week.
Prerequisites: MATH-110 or MATH-115 or MATH-118
General education: natural and physical sciences
- PHYS-125 Concepts of Physics** 4 Credits F, S
 Introduction to the basic concepts of physics emphasizing practical applications of physical laws to common occurrences. Physical descriptions are presented on how things move, the behavior of sound and light, uses of electricity and magnetism, and the behavior of fundamental particles. Three hours in class and two hours in lab per week.
Prerequisites: MATH-110 or MATH-115 or MATH-118
General education: natural and physical sciences
- PHYS-140 The Physics of Music** 3 Credits I
 Lectures and active-learning activities that explore the physics of sound and music. Topics include the propagation and energy of sound waves, frequency and wavelength, harmonics and overtones, perception of sound intensity, how various musical instruments produce different sounds, and standing waves in different media.
Prerequisites: MATH-110 or MATH-118 or permission of instructor
- PHYS-195 Visualizing Physics with Computers** 3 Credits I
 A hands-on introduction to scientific computing with professional software packages. Emphasizes the graphical capabilities of software, such as Mathematica, applied to problems in physics.
Prerequisites: MATH-120 or permission of instructor
- PHYS-218, PHYS-219 College Physics I, II** 4 Credits each F, S
 Algebra-based exploration of the concepts of motion, forces, energy, waves, heat, electricity, magnetism, optics and modern physics. Three hours in class, one hour in recitation and two hours in lab per week.
Prerequisites: MATH-120
Prerequisites for PHYS-219: PHYS-218
- PHYS-221, PHYS-222 General Physics I, II** 4 Credits each F, S
 During the first term: Kinematics, Newton's Laws of Motion, conservation laws, rotational motion, periodic motion and fluid mechanics. During the second term: Thermodynamics, electricity, magnetism, optics and modern physics. A combination of lectures and learning by inquiry are employed. Computers are used for data acquisition, data analysis and mathematical modeling. Three hours in class, one hour in recitation and two hours in lab per week.
Prerequisites: MATH-130 or MATH-132 or concurrent enrollment in MATH-131, MATH-132 respectively
Prerequisites for PHYS-222: PHYS-221
General education for PHYS-222: natural and physical sciences
- PHYS-305 Electronics** 4 Credits F
 Analog electronics including diode and transistor operation, mathematical circuit analysis and operational amplifier applications. Two hours in class and six hours in lab per week.
Prerequisites: PHYS-222 and PHYS-132
Alternate years: offered 2015–2016
- PHYS-306 Digital Electronics** 3 Credits I
 Analysis and applications of digital circuits such as flip-flops, registers, counters and analog-to-digital converters leading to interfacing real-time data collection to computers.
Prerequisites: PHYS-219 or PHYS-222
Alternate years: offered 2014–2015

- PHYS-308 Modern Physics** 3 Credits F
A survey of 20th century physics. Topics include relativity, wave-particle dualism, Schroedinger equation, wave functions, spectra, nuclear physics and elementary particles.
Prerequisites: PHYS-222 and MATH-132
Alternate years: offered 2015–2016
- PHYS-311, PHYS-312 Classical Mechanics I, II** 3 Credits each F, S
Kinematics and dynamics in one, two and three dimensions including oscillating systems, central force motion, Lagrangian and Hamiltonian dynamics, motion of rigid objects and wave motion.
Prerequisites: PHYS-222 and MATH-132
Prerequisites for PHYS-312: PHYS-311
Alternate years: offered 2014–2015
- PHYS-331, PHYS-332 Electricity and Magnetism I, II** 3 Credits each F, S
Electrostatics, scalar potential, electric fields and energy in conductors and dielectrics, electric currents, magnetic fields and energy, leading up to Maxwell's equations and from there to electromagnetic radiation.
Prerequisites: PHYS-222 and MATH-132
Prerequisites for PHYS-332: PHYS-331
Alternate years: offered 2014–2015
- PHYS-341 Thermal and Statistical Physics** 3 Credits S
Thermodynamics, kinetic theory and an introduction to statistical mechanics.
Prerequisites: PHYS-222 and MATH-232
Offered on demand
- PHYS-345 Experimental Physics** 3 Credits I
Classical and modern experiments give the student a basic understanding of experimental methods. Involves several lectures and extensive lab work.
Prerequisites: PHYS-222 and MATH-132
Alternate years: offered 2015–2016
- PHYS-410 Optics and Laser Physics** 4 Credits S
Electromagnetic nature of light, geometrical optics, polarization, interference, diffraction, holography and basics of lasers with applications. Three hours in class and three hours in lab per week.
Prerequisites: PHYS-222 and MATH-232
Offered on demand
- PHYS-420 Quantum Mechanics** 3 Credits S
Schroedinger equation, square well, harmonic oscillator, hydrogen atom, matrix methods, angular momentum, spin and approximation methods.
Prerequisites: PHYS-308 and MATH-232
Alternate years: offered 2015–2016
- PHYS-450 Special Topics** 3 Credits F, S
Devoted to a subject chosen from some field of physics in which regular courses are not offered. May be repeated for credit provided a different topic is covered.
Prerequisites: permission of instructor
Offered on demand
- PHYS-460 Seminar** 3 Credits S
Discussion and presentation of papers by students and faculty on problems of current interest in physics.
Prerequisites: senior standing with a major in physics, applied physics, physics and mathematics, or permission of instructor
- PHYS-480 Internship** 3 Credits F, I, S
- PHYS-490 Independent Study** 3 Credits F, I, S
- PHYS-491 Research** 3 Credits F, I, S
- PHYS-499 Honors Project** 3 Credits F, I, S

PSYCHOLOGY

MAJORS

Psychology

MINORS

Psychology

Neuroscience

Psychology, broadly defined, is the systematic, scientific study of physiological, behavioral and mental processes in humans and animals. The field of psychology is simultaneously a scholarly discipline, a research domain and an applied profession. Psychologists may work in clinical, counseling, educational, industrial or social settings and play central roles in the fields of health, sports, politics and business.

The main goal of the department of psychology at Bridgewater College is to teach students the significant concepts, theories, research findings and methodological approaches that have shaped the history of psychology and that represent the contemporary status of the field. A vital component of a Bridgewater student's training in psychology is direct involvement in psychological research and the application of knowledge, skills and techniques to the prevention, treatment and solution of individual and social problems.

The department of psychology offers a wide range of courses to students to represent the diversity of the field and to meet the diversity of students' interests. Students have the opportunity to choose those courses that best serve their interests and career goals.

The curriculum is research-focused while sampling from subfields within psychology that are traditionally regarded as fundamental (cognition, developmental and social) and those more often labeled as applied (clinical and sexuality), in addition to the neurosciences. Students may fulfill the senior capstone requirement through a faculty-mentored research project using state-of-the-art computing and laboratory or through applied research in a practicum setting at one of many human service agencies in the area.

PSYCHOLOGY MAJOR

A minimum of 38 credits including the following courses:

Core Courses (17 credits)

PSY-101	General Psychology
PSY-210	Biological Psychology
PSY-230	Research Methods
PSY-240	Behavioral Psychology
PSY-300	Measurement and Statistics

Fundamental Courses (9 credits)

PSY-310	Abnormal Psychology
PSY-330	Memory and Cognition
PSY-350	Social Psychology
PSY-317	Biology of the Mind
PSY-370	Developmental Psychology
PSY-390	Sensation & Perception

PSY-399 Psychology of Personality

Applied Courses (6 credits)

PSY-319 Functional Neuroanatomy

PSY-320 Clinical Psychology

PSY-340 Public Mental Health

PSY-360 Psychopharmacology

PSY-375 Applied Neuropsychology

PSY-380 Human Sexuality

PSY-400 Applied Behavior Analysis I

PSY-410 Applied Behavior Analysis II

Integrative Course (3 credits)

PSY-450 Historical Issues

PSY-460 Interaction Rituals

PSY-470 Special Topics

PSY-475 Neuroethics

PSY-480 Internship

PSY-481X Practicum in Applied Psychology

Plus 3 credits from any PSY course except PSY-499 (3 credits)

PSYCHOLOGY MINOR

A minimum of 18 credits including the following courses:

PSY-101 General Psychology

PSY-230 Research Methods

Plus 4 additional PSY courses

NEUROSCIENCE MINOR

A minimum of 20 credits including the following courses:

PSY-210 Biological Psychology

⁻⁰¹⁻BIOL-110 Principles of Biology I

⁻⁰¹⁻BIOL-112 Human Biology

PSY-425 Neuroscience Methods

PSY-475 Neuroethics

Plus 3 of the following:

PSY-390 Sensation and Perception

PSY-360 Psychopharmacology

BIOL/PSY-375 Applied Neuropsychology

BIOL/PSY-317 Biology of the Mind

BIOL/PSY-319 Functional Neuroanatomy

Students interested in graduate work or careers in neuroscience are strongly encouraged to complete BIOL-305 and BIOL-314.

COURSES

PSY-101 General Psychology

3 Credits F, S

Introduction to psychology as a natural and a social science. Topics include the methods of science, biological bases of behavior, developmental processes, sensation and perception, states of consciousness, conditioning and learning, memory and cognition, motivation and emotion, theories and assessment

of intelligence and personality, diagnosis and treatment of psychological disorders, and social-cultural influences on behavior.

General education: social sciences

PSY-150 Creativity and Problem Solving 3 Credits I

Exploration of the field of creativity and problem solving through a study of creative people, the creative process and creative products. Students gain a fundamental knowledge of the neurological, psychological and sociological issues related to the study of creativity while also improving their own creative and problem solving abilities.

PSY-210 Biological Psychology 4 Credits F, S

Introduction to the biological bases of human and animal behavior. General introduction to the nervous system including its development, structure and function, with particular emphasis on the role of brain mechanisms in movement, circadian rhythms, hunger and thirst, sexual behavior, emotional behaviors and stress, learning and memory, and psychological disorders.

Prerequisites: PSY-101

PSY-230 Research Methods 3 Credits S

Exploration of descriptive, correlational, and experimental research methods and statistics. Topics include the scientific method, ethical research, hypothesis testing, reliability and validity, the nature and correct use of inferential statistics, and how to interpret main effects and interactions.

Prerequisites: PSY-101

PSY-240 Behavioral Psychology 3 Credits F, S

Introduction to the experimental analysis of behavior. Historical and modern approaches in the scientific study of learning are discussed. Students are required to demonstrate factual knowledge in the major content areas, procedures and other advanced issues in regards to simple forms of learning such as habituation and sensitization and more complex forms of associative learning exemplified in classical and operant conditioning.

Prerequisites: PSY-101

Prerequisites or corequisites: PSY-210 or PSY-230, or permission of instructor

PSY-300 Measurement and Statistics 4 Credits F

Introduction to basic principles of data analysis. Topics include data distributions, preparation of data and graphs, measurement of central tendency and dispersion, hypothesis testing, and descriptive and inferential statistics. Students develop expertise using SPSS and Excel through lab experiences and a group project.

Prerequisites: PSY-230

PSY-310 Abnormal Psychology 3 Credits F, S

Empirical findings related to the description, classification, assessment, etiology and treatments of various psychological disorders. Specific disorders examined include anxiety disorders, mood disorders, substance-related disorders, personality disorders and schizophrenia. An important emphasis is understanding the impact of mental illness on individuals and their family and friends.

Prerequisites: PSY-101 or SOC-101, or permission of instructor

PSY-317 Biology of Mind (Cross-listed as BIOL-317) 3 Credits S

Examination of the contribution of neuroscience techniques to the understanding of sensation/perception, attention, learning, memory, language and consciousness. Lectures and papers involve an analysis of the interdisciplinary methods such as functional neuroimaging, electrophysiological methods and the neurological impairments of brain-damaged patients.

Prerequisites: PSY-101 and PSY-210 or BIOL-110 or BIOL-112, or permission of instructor

PSY-319 Functional Neuroanatomy (Cross-listed as BIOL-319) 3 Credits F

Comprehensive analysis of the organization of vertebrate nervous systems approached from a structural perspective with emphasis on the human central nervous system. Principles of organization are stressed. Laboratory component introduces students to neuroanatomical and neurohistological methods and

techniques. Both the gross and fine microscopic anatomy of the nervous system are studied.

Prerequisites: PSY-101 and PSY-210 or BIOL-110 or BIOL-112, or permission of instructor

PSY-320 Clinical Psychology

3 Credits F

Introduction to the field of clinical psychology. Emphasis on covering the two main tasks of clinical psychologists: psychotherapy and testing. Content includes a variety of treatment approaches and therapeutic techniques, as well as testing situations and common clinical applications. Special emphasis given to clinical competence, client rights, and matching therapeutic techniques and tests with specific referral questions. Theoretical and applied material are integrated so as to provide students with the rationale for, and a "hands-on" feel of, clinical psychology. As appropriate, students have the opportunity to observe and/or informally administer psychological testing instruments and therapeutic techniques.

Prerequisites: PSY-230 and PSY-310, or permission of instructor

PSY-330 Memory and Cognition

3 Credits F

Investigation of the major areas of cognitive psychology. Topics include perception and attention, representation of knowledge, models of memory, problem-solving/reasoning, language and intelligence. Analysis of the validity and reliability of measuring cognitive processes occur through participation in hands-on experiments and demonstrations.

Prerequisites: PSY-230 or permission of instructor

PSY-340 Public Mental Health

3 Credits S

Exposes students to a broad view of public mental health and psychology in the public interest. Stimulates the interest of future researchers, clinicians and policy makers toward improvement of public mental health. Specific attention given to discerning science from pseudoscience in the practice of psychology.

Prerequisites: PSY-310 or permission of instructor

PSY-350 Social Psychology

3 Credits S

Overview of the study of how people's behaviors, attitudes and feelings are shaped by other people and the social environment. Topics include attraction, prejudice, deindividuation, persuasion, cognitive dissonance, social cognition, attribution theory and the social self. Emphasis on classic research and the latest studies in the field and their applicability to everyday experiences of the students.

Prerequisites: PSY-101 or permission of instructor

PSY-360 Psychopharmacology

3 Credits S

Introduction to selected topics from the study of drug effects on behavior and other psychological processes, including memory, motivation and perception. Special emphasis on the reinforcing properties of drugs and substance abuse/dependence.

Prerequisites: PSY-210 or permission of instructor

PSY-370 Developmental Psychology

3 Credits F, S

Surveys historical approaches, basic issues, recent research and current theoretical perspectives in developmental psychology. Emphasis on describing and explaining the changes that characterize physical, perceptual, cognitive, social and emotional development across the lifespan.

Prerequisites: PSY-101 or permission of instructor

PSY-375 Applied Neuropsychology (Cross-listed as BIOL-375)

3 Credits S

Multidisciplinary course in neuroscience, with clinical ties to neurology, psychiatry and psychology, as well as basic scientific links to biology, computer science and cognitive studies. Examines how the structure and function of the brain relate to specific cognitive processes and overt behaviors through the use of neuropsychological testing methods. Topics include orientation, learning and memory, intelligence, language, visuo-perception and executive functioning. The administration, scoring and interpretation of various neuropsychological measures are discussed.

Prerequisites: PSY-230 or MATH-140 or SOC-322 and PSY-210 or PSY-317 or PSY-319 or BIOL-110 or BIOL-112, or permission of instructor

PSY-380 Human Sexuality

3 Credits F

Overview of the psychological, social and biological aspects of sexuality that will be of use for

communicating with romantic partners, doctors and children. Topics include sexual anatomy and physiology, sexually transmitted diseases, methods of contraception, prenatal sexual differentiation, sex research, attraction and love, sexual orientation, sexual dysfunction and sexual ethics.

Prerequisites: PSY-101 or SOC-101 and junior or senior standing

PSY-390 Sensation and Perception 3 Credits F

Survey of theories, principles and facts concerning the sensory sciences. Emphasis on the study of physical, physiological and psychological principles governing how we acquire information from the environment through the senses, and the organization of these sensations into meaningful, interpretable experiences. Although the focus is on mechanisms, the influence of disease, development and aging are also considered.

Prerequisites: PSY-210 or permission of instructor

PSY-399 Psychology of Personality 3 Credits S

Examination of the psycho-analytic, neo-analytic, trait, biological and adjustment approaches to "normal" and abnormal personality. The contributions of major personality theorists (Freud, Adler, Erikson, etc) are examined as well. Coursework emphasizes reflective essays and assessments to foster insight into the students' own personality.

Prerequisites: PSY-101 and PSY-210, or permission of instructor

PSY-400 Applied Behavior Analysis I: Fundamentals of Behavior Change 3 Credits I, Sum

Emphasizes basic principles, procedures and ethical concepts of ABA. Topics include complexities and schedules of contingencies, antecedent analyses, prompting, shaping and fading in establishing alternative adaptive behaviors. Theory and application of techniques for improving communicative behaviors are covered, as are the evidence-based conditions for ABA. Completion satisfies part of the requirements needed for admission to the Board Certified Assistant Behavior Analyst examination (BCaBA).

Prerequisites: PSY-240

PSY-410 Applied Behavior Analysis II: Analysis and Intervention 3 Credits S, Sum

Covers ABA tasks and responsibilities in specific intervention situations. Ethical issues related to intervention are addressed. Focus on person-centered responsibilities including problem identification; problem measurement and assessment; task analyses, selecting, developing and modifying individual and group interventions based on data; analyses of support systems in the environment; the fidelity of the implementation of the intervention; precision teaching; and the management and supervision of contingency systems. Completion satisfies part of the requirements needed for admission to the Board Certified Assistant Behavior Analyst examination (BCaBA).

Prerequisites: PSY-240 and PSY-400, or permission of instructor

PSY-425 Neuroscience Methods (Cross-listed as BIOL-425) 4 Credits S

Lecture and laboratory course exposing students to a variety of research techniques employed by neuroscientists: behavioral and cognitive procedures for measuring reward, memory, attention and emotion; neuroanatomical procedures for staining and examining brain tissues; physiological procedures for recording the electrical activity of nerve cells, as well as commonly used techniques used to explore brain-behavior relationships (EEG, lesions, electrical and chemical stimulation).

Prerequisites: PSY-317 or PSY-319 and CHEM-125 or higher, or permission of instructor

PSY-450 Historical Issues in Psychology 3 Credits F, S

Reviews the history of modern psychology by focusing on its recurring theoretical issues. Topics include debates about the nature of consciousness, nativism and animal cognition.

Prerequisites: PSY-230 and junior or senior standing

PSY-460 Interaction Rituals: Research Seminar in Contemporary Psychology 3 Credits I

Overview of the psychology of social interactions involving status rituals and politeness expectations. Contemporary topics include forgiveness, lying, apologizing, teasing and gossiping. Discussion-based seminar causes students to examine their daily interactions more closely and gives them insight into their own status in their social groups. Daily research papers, a self-analysis project and a research proposal are

the bases of the course grade.

Prerequisites: PSY-101 or permission of instructor

PSY-470 Special Topics 3 Credits I

Directed study of a selected research topic. Designed to help the advanced student develop knowledge of a specific area of research or practice.

Prerequisites: permission of instructor

PSY-475 Neuroethics 3 Credits I

Delineates the field of neuroethics concerned with the social, legal and ethical implications of modern research on the brain. Brings together contemporary writings from neuroscientists, bioethicists, public policy makers and scholars in the humanities for discussion and debate on these issues.

Prerequisites: PSY-101 and [PSY-210 or BIOL-110 or BIOL-112] or permission of instructor

Alternate years: offered 2015–2016

PSY-480 Internship 3 Credits F, I, S

PSY-481X Practicum in Applied Psychology 3 Credits F, S

Supervised practicum experience in a public or private agency setting that provides psychological or educational services. A student may enroll in a practicum for 3 credit hours in a semester, and practicum credit may be earned in one additional semester. Grade based on supervisor evaluations, class attendance and participation, setting up a specific learning agreement, completing weekly note-writing, compiling a scientific rationale for intervention and developing a case presentation.

Prerequisites: PSY-230, a minimum 2.5 GPA, and junior or senior standing

General education: experiential learning

PSY-490 Independent Study 3 Credits F, I, S

PSY-491 Research 3 Credits F, I, S

PSY-499 Honors Project 3 Credits F, S

SOCIOLOGY

MAJORS

Sociology

MINORS

Crime and Justice

Cultural Studies

Social Work

The sociology department offers a broad range of courses leading to a bachelor of arts with a major in sociology. Social work, crime and justice, and cultural studies minors are options for students majoring in any discipline. Each year, our graduates go into a variety of careers and graduate programs in the social sciences, human services, education, the legal professions, criminal justice, government, business and communications. The department places a strong emphasis upon developing skills in interpretation, writing, research and data analysis that are broadly transferable among many professional vocations. Many sociology courses are taught in an interactive format, in which student contributions are central to class sessions. Subjects include anthropology, cultural studies, group dynamics, criminology, inequality, family, race and ethnicity, social theory, and both quantitative and qualitative research and data analysis. The program features a balanced emphasis upon theoretical issues and practical skills; a senior practicum that is very flexible, with a strong reputation in local and regional organizations; a multi-function departmental computer lab; and a curriculum structure that invites our majors to consider minors in related disciplines and opportunities for study abroad.

SOCIOLOGY MAJOR

Consists of 36 credit hours including the following courses:

SOC-101	The Sociological Imagination
SOC-301	Classical Social Theory
SOC-302	Contemporary Social Theory
SOC-321	Qualitative and Ethnographic Research
SOC-322	Methods of Research and Data Analysis I
SOC-323	Methods of Research and Data Analysis II
SOC-401	Community Action
MATH-140	Introduction to Statistics
-or-	
PSY-300	Measurement and Statistics

Overlap Policy: Students majoring in sociology may count courses in their major toward courses in minors when there are courses in common, up to ONE course per program (beyond any courses required for both programs).

SOCIAL WORK MINOR

Consists of 21 credit hours in sociology and social work from the following courses:

SOC-254	Introduction to Social Work
SOC-255EX	Introduction to Social Welfare Systems
SOC-368W	Sociology of the Family
SOC-451	Counseling and Personal Development
SOC-481X	Field Experience in Social Welfare

And two courses from the following:

SOC-211	Criminology
SOC-256	Group Process
SOC-312	Juvenile Justice
SOC-333	Racial and Ethnic Studies
SOC-335	Immigrants in the Shenandoah Valley
SOC-366	Sociology of Birth and Death
SOC/PHIL-367	Conflict Transformation
PSY-340	Public Mental Health

Overlap Policy: No more than one course in the minor (beyond any courses required for both programs) can also count toward a student's major.

CRIME AND JUSTICE MINOR

Consists of 24 credit hours including the following courses:

SOC-101	Principles of Sociology
SOC-211	Criminology
SOC-412	Adjudication and Corrections: Existing and Alternate Strategies
SOC-483	Senior Practicum in Crime and Justice

And four courses from the following:

SOC-312	Juvenile Justice and Delinquency
SOC-313	Gender, Crime and Justice
SOC-314	World Justice Systems
SOC-315	Public Security and Insecurity
SOC-335	Immigrants in the Shenandoah Valley
SOC/PHIL-367	Conflict Transformation
COMM-410	Communication Law and Ethics in a Digital Age
PHIL-320E	Professional Ethics
PSCI-355	Constitutional Law of Civil Rights and Liberties
PSCI-420W	International Law and Organization
PSY-340	Public Mental Health

Overlap Policy: No more than one course in the minor (beyond any courses required for both programs) can also count toward a student's major.

CULTURAL STUDIES MINOR

Consists of 18 credit hours including the following courses:

SOC-232	Cultural Studies
SOC-431X	Public Culture

And four courses (at least one from each category) from the following electives:

Note: Courses for the minor must be taken in at least three different departments. No more than one Interterm course will count toward the minor.

Cultural Theory

ART-300	Modern and Postmodern Art
COMM-230	Communication Technologies
COMM-240	Contemporary Media Industries
ENG-200	Introduction to English Studies
PHIL-333W	Contemporary Philosophy
PHIL-420W	Postmodernism
PSCI-401E	Contemporary Political Thought

F = Fall Semester I = Interterm S = Spring Semester

SOC-302	Contemporary Social Theory
SOC-331	Cultural Theory at the Movies
THEA/ENG-362	Contemporary Drama

Cultural Politics

COMM-335	Communicating Sex and Gender
COMM-340	Representations of Gender, Race and Class in Media
ENG-221	Images of "Folk" in Literature
ENG-243	Native American Literature and Culture
FREN-350	Special Topics in Culture
HIST-335	Women's History in Global Contexts
PHIL-322EW	Ethics and Identity
PSCI/SOC-205	Global Identities
PSCI-332	Women and Politics
SOC-333	Racial and Ethnic Studies
SOC-334	Gender and Sexuality Studies
SOC-335	Immigrants of the Shenandoah Valley
SOC-361	Development and Underdevelopment in the Modern World
SPAN-350	Special Topics in Culture

Cultural Change

ART-315	Kinetic Sculpture
ART-316	Metal Sculpture
ART-322	Web Theory and Design
ART-323	Graphic Design
ART-335	Painting and Color Composition
ART-344	Photography—Digital Capture/Digital Darkroom
ART-347	Videography
COMM/ENG-255W	Multimedia Information Production
COMM/ENG-305	Multimedia Reporting and Writing
COMM-306	Investigative Journalism and Documentary Production
COMM-420	Political Campaigning in Virtual Environments
ENG-311	Creative Writing
ENG-320	Writing Contemporary Poetry
FREN-315	Special Topics in Writing
SPAN-315	Special Topics in Writing
THEA-200	Theatrical Production
THEA-225	Scenic Painting
THEA-310	Production Laboratory: Acting
THEA-311	Production Laboratory: Design
THEA-312	Production Laboratory: Stage Management, Directing, Dramaturgy
THEA-355	Environmental Theatre

Other elective courses, including those from study abroad programs, may be included with departmental approval.

Overlap Policy: No more than two courses in the minor (beyond any courses required for both programs) can also count toward a student's major.

COURSES

SOC-101 Sociological Imagination

3 Credits F, S

Introduction to the sociological imagination, with a critical examination of social issues, individual

experiences, and the potential for social change. Topics include the nature and impact of culture and social structure, inequality, social institutions, identity, social interaction, and the historical context of knowledge and relationships. Methods of sociological investigation and interpretation are also emphasized.

Corequisites: PDP-150 or PDP-350

General education: social sciences

SOC-201 General Anthropology

3 Credits F

Human biology and evolution as seen through genetics, races, archaeology and prehistory; and the diversity and uniformity of human behavior as seen through cross cultural studies. The growth and spread of culture in time and space are reviewed; the impact of urbanization, industrialization and technological trends on the nature and quality of man's life are examined.

Credit may not be received for both SOC-201 and SOC-202

SOC-202 Cultural Anthropology

3 Credits F

Focused on the cultural branch of anthropology, topics include how the different contexts in which humans live have produced variations in belief, food, dress, music, kinship, gender, visual aesthetics, language and other cultural aspects of ordinary life. Also introduces ethnography, an anthropological way of doing research and writing, in order to understand cultural difference.

Credit may not be received for both SOC-201 and SOC-202

SOC-203 Social Problems

3 Credits I

Problems of population growth, environment and resource depletion, alcoholism and drug addiction, crime and violence, inequity and poverty, unemployment, alienation and others is studied. Development of public awareness, role of social movements, theoretical approaches, value conflicts, interest groups and power struggles, and examination of proposed solutions are also included.

SOC-205 Global Identities (Cross-listed as PSCI-205)

3 Credits F, S

Interdisciplinary exploration of the power and dynamics of human similarities and differences on a global scale. Covers globalization from the perspective of identity and difference, and provides opportunities to question contemporary assumptions, values and patterns of behavior with the goal of making global interactions more constructive and more peaceful.

Prerequisites: PDP-150 or PDP-350

General education: global dynamics

SOC-211 Criminology

3 Credits F

Examination of theories pertaining to the causes of crime and treatment of offenders. Theories of violent and property crimes (including "white-collar" crimes) are explored. Critical analysis of the social, political and cultural context of the justice system in the U.S., with a special emphasis on questions of justice, fairness and equality are also undertaken.

Prerequisites: SOC-101

SOC-232 Cultural Studies

3 Credits F

Introduction to the theory and practice of cultural studies, engaging with major themes and scholarly research in this interdisciplinary field. A critical perspective on mass media and popular culture is emphasized. Topics include ideology, neoliberalism, recursivity, patriarchy, racism and celebrity fetishism.

Prerequisites: SOC-101

SOC-256 Group Process

3 Credits I

Study of the behavior of individuals in small groups with a focus on the development of interpersonal communication skills. Topics include facilitation, leadership styles, decision making, problem solving and mediation. Attention directed at how groups form and change over time; how conflict occurs and is managed; how roles and norms develop; and the nature of power, conformity and deviance in groups. The relevance of this work to applied settings is also discussed.

Prerequisites: SOC-101

SOC-301 Classical Social Theory

3 Credits F

Survey of classical sociological theory, including the works of Karl Marx, Emile Durkheim, Max Weber,

George Herbert Mead, Charlotte Perkins Gilman and others.

Prerequisites: SOC-101

SOC-302 Contemporary Social Theory 3 Credits S

Survey of contemporary sociological theory, including the works of Erving Goffman, Harold Garfinkel, The Frankfurt School, Bourdieu, and others.

Prerequisites: SOC-301 or permission of instructor

SOC-312 Juvenile Justice and Delinquency 3 Credits S

Analysis of juvenile crime and its connections to family structures, peer groups and the educational system, as well as gender, race and class. Trends in juvenile corrections are examined along with current debates on reform. Special topics include gangs, juvenile detention, probation, child advocates, waiver to adult courts and hospitalization.

Prerequisites: SOC-101

Alternate years: offered 2016–2017

SOC-313 Gender, Crime and Justice 3 Credits S

Investigation of the interaction between gender and social control in the U.S. and cross culturally. The gendered nature of criminal activity is examined empirically and theoretically. The justice system, including the correctional treatment of women, is examined for its relationship to historical shifts in the status and treatment of women.

Prerequisites: SOC-101

Alternate years: offered 2015–2016

SOC-314 World Justice Systems 3 Credits S

Comparative study of justice systems derived from major legal traditions. The development and application of these systems is examined, with an emphasis on historical trends and social forces that shape them. Comparative themes include the role of political power, public perceptions, systems of morality, constructions of guilt and corrections philosophies.

Prerequisites: SOC-101

Alternate years: offered 2015–2016

SOC-315 Public Security and Insecurity 3 Credits F

Examines perceptions of security and danger in America since the early 20th century and their effect on the balance between public safety and individual liberty. Examples include organized crime, labor conflict, the communist threat, youth gangs, drugs and terrorism. The role of “moral entrepreneurs,” special interest groups, mass media, intelligence and surveillance, and political manipulation are explored. The balance of public safety and individual liberty is central to explorations throughout the course.

Prerequisites: SOC-101

Alternate years: offered 2014–2015

SOC-321 Qualitative and Ethnographic Research 3 Credits S

Investigation of the practical, theoretical and ethical issues involved in interpretive, field-based research. Specific research methods addressed include participant observation, interviews, action research, case studies, multimedia analysis and ethnography. Hands on experience includes students developing and conducting original field research projects.

Prerequisites: SOC-101

SOC-322 Methods of Research and Data Analysis I 3 Credits F

Scientific methods and their application in the study of social phenomena, with emphasis on survey research. Topics include the relation between theory and research, defining and operationalizing a research problem, questionnaire construction, research design alternatives, sampling, measurement, and elementary data analysis and reporting utilizing the Statistical Package for the Social Sciences (SPSS).

Prerequisites: SOC-101 and MATH-140 or PSY-300

SOC-323 Methods of Research and Data Analysis II 3 Credits S

The application of scientific research methods to specific research problems. Various measurement, scaling,

and statistical techniques are utilized to address research problems defined by the students. The Statistical Package for the Social Sciences (SPSS) is used to analyze data from the General Social Survey (GSS) and other existing data sets. Culminates in a major research paper that is presented in oral and written form.
Prerequisites: SOC-322

SOC-331 Cultural Theory at the Movies 3 Credits I

Introduction to theories of culture and society using movies as a medium. Important lenses in cultural studies including critical theory, postmodernism, postcolonial theory, feminism/critical race theory, and psychoanalysis are introduced through “textual” examination of 21st century films across the global landscape. Students should be prepared to view challenging films that may depict violence, sexual situations, substance abuse and/or strong language.

Prerequisites: SOC-101 or permission of instructor

SOC-332 The Sociology of the Living Dead: Zombie Films and the Apocalyptic in American Culture 3 Credits I

Examination of the sociological implications of the zombie film genre, with emphasis on how the films may reflect cultural tensions between individualism and community, declining trust in government and other civic institutions, and the pervasiveness and influence of apocalyptic and millennial visions in American culture. Seminar discussion and analytic writing cultivate students’ ability to interpret this cultural phenomenon as well as others, more generally.

Prerequisites: SOC-101

SOC-333 Racial and Ethnic Studies 3 Credits F

The nature of racial relations and inequalities in American society, including their historical origins and relationship to Western capitalist development. The ethnic composition of contemporary American society, impact of legal and illegal immigration patterns, dynamics of modern structures and institutions, the Civil Rights Movement, inter-ethnic conflicts and attitudes, multiculturalism and status of affirmative action are analyzed in the context of national and global social change.

Prerequisites: PDP-150 or PDP-350 and SOC-101

SOC-334 Gender and Sexuality Studies 3 Credits S

Introduction to a variety of conceptual frameworks and theoretical lenses relating to human gender and sexualities, including social constructionism, political economy, and cultural studies. A critical, global, historical and sociological approach will be emphasized to unpack gendered and sexualized social structures like patriarchy, heterosexism and hegemonic masculinity. Special attention will be paid to social movements and challenges to power/resource inequalities made by gender and sexuality-based minority groups.

Prerequisites: PDP-150 or PDP-350 and SOC-101

General education: global dynamics

Alternate years: offered 2014–2015

SOC-335 Immigrants in the Shenandoah Valley 3 Credits S

Examination of global theories of migration and how they manifest in the local context of the Shenandoah Valley. Migration will be studied from a variety of lenses including cultural studies, history, political economy and sociology, and a critical globalization perspective will be emphasized throughout the course.

Prerequisites: PDP-150 or PDP-350 and SOC-101

General education: global dynamics

Alternate years: offered 2015–2016

SOC-338 Introduction to Material Culture Studies 3 Credits I

Introduces students to techniques for examination of objects and artifacts through the study of important texts, hands on experience, on-site visits to museums, buildings and cultural landscapes. Topics include vernacular architecture, cultural geography, popular design, technology, folk life and archaeology.

Prerequisites: SOC-101

SOC-361 Development and Underdevelopment in the Modern World 3 Credits S

Dilemmas, tensions, and theoretical and policy issues related to the position of Third World countries

in the modern world. Questions of urbanization, industrialization, modernization, westernization and distribution of economic resources are discussed. Various theories of development and underdevelopment are critically examined.

Prerequisites: SOC-101 and major in one of the social sciences or permission of instructor

SOC-362 Sociology of the Caribbean: A Case Study of Jamaica 3 Credits I

Sociological exploration of the Caribbean with Jamaica as the case study. Examines the political, economic and social aspects of Jamaica in the context of the Caribbean region and in comparison with the rest of the world. Jamaican history, language, race, social class, ethnicity and the impact of the tourist industry are explored.

Prerequisites: SOC-101

SOC-363 Cultures of Japan 3 Credits F, S

Historical and cultural study of Japan, with particular attention to religion, government and the arts. Consideration given to daily life in Japan and current problems and changes.

Prerequisites: PDP-150 or PDP-350 and SOC-101

General education: world cultures

SOC-364 Sociology of the African Continent: A Case Study of Zambia 3 Credits I

Sociological exploration of how the geography, climate, colonial history, rural economic development, urbanization, democratization, tribal cleavage and affiliation influence the culture, language, politics, tourism, racial and ethnic relations, education and family structure of Zambia. As a case study of the African continent, Zambia is used to investigate contemporary African challenges. A 12-day trip to Zambia focuses on visiting the capital city of Lusaka, the University of Zambia, Nkhanga Rural Region Village Library of Lundazi District of Eastern Zambia, the Victoria Falls and the Luangwa Game Park.

Prerequisites: SOC-101, SOC-201, SOC-202, or SOC/PSCI-205 or permission of instructor

SOC-365 Cultures of Africa 3 Credits F

The racial, social and cultural history of Africa in ancient and modern times. Attention given to the impact of urbanization and to African responses to Western values and institutions as carried to the continent by the colonial powers as well as contemporary political and socioeconomic trends and problems.

Prerequisites: PDP-150 or PDP-350 and SOC-101

SOC-366 Sociology of Birth and Death 3 Credits S

Examination of how society supports, controls and constrains our arrival into and departure from the world, revealing the ways that events often assumed to be "natural" are in fact conditioned by social and cultural forces. Special emphasis on the communication of cultural norms regarding birth and death, the impact of advances in medicine and technology, and how birth and death become cultural metaphors for other social phenomena.

Prerequisites: SOC-101

Alternate years: offered 2015–2016

SOC-367 Conflict Transformation (Cross-listed as PHIL-367) 3 Credits S

Broad introduction to the field, familiarizes students with conflict and practical approaches to its transformation. Personal communication and conflict styles, negotiation skills, interpersonal mediation, and facilitation of group decision making and problem solving strategies are examined. Participation in discussions, exercises, analyses, role plays and simulations frame the course. In addition to the regularly scheduled meeting times, one Saturday session is included.

Prerequisites: SOC-101

SOC-368W Sociology of the Family (Cross-listed as FCS-368W) 3 Credits F

Examination of the human family historically and comparatively in various cultures with major emphasis placed upon the modern American family. Topics include the diversity of family structures, the social construction of emotions, gender expectations and roles, parenting, the life cycle and family tensions.

Prerequisites: SOC-101 and ENG-110

General education: writing intensive

SOC-369 Studying the American Militia Movement: Guerrillas in Our Midst 3 Credits I

Explores the genesis of the American militia movement and its current incarnations, employing sociological theories of culture, ideology, social movements and cultural change to examine the movement and the ways in which it yields insights into some crucial questions about our society and our social ideals: how we define citizenship, community and nation; how members of social movements and subcultures create insider outsider distinctions between themselves and non-members; and the cultural values and symbols upon which social movements draw in order to communicate a vision of America as they see it and as they believe it should be.

Prerequisites: SOC-101

SOC-401 Community Action 3 Credits S

Senior capstone course offering action-based research with the local community. Students engage both community and social change literature. Topics will vary depending on student interest.

Prerequisites: SOC-101

SOC-412 Adjudication and Corrections: Existing and Alternate Strategies 3 Credits S

Critical evaluation of structures of adjudication, sentencing and corrections in the United States. Includes an examination of alternative approaches to justice and reconciliation, such as community-based rehabilitation, victim/offender conflict mediation, etc. Various strategies for community reintegration are also explored.

Prerequisites: SOC-101

Alternate years: offered 2014–2015

SOC-431X Public Culture 3 Credits S

Engage critically and comprehensively with public culture in all its forms, deepening understanding of various cultural theories through direct exposure to a variety of public cultural events, institutions and texts. Readings will be selected to correspond with these class outings, and students will be expected to reflect on, as well as analyze, their experiences in public culture through writing assignments and semester-long projects relating to cultural change.

Prerequisites: PDP-150 or PDP-350 and SOC-232

General education: experiential learning

SOC-480 Internship 3 Credits F, I, S**SOC-483 Senior Practicum in Crime and Justice** 3 Credits F, I, S

Capstone course for the crime and justice minor. Students gain direct experience with the field in agencies of law enforcement; courts or law firms; and corrections, rehabilitation and community restoration. The practicum requires 120 hours of field participation over the semester, weekly journals and a final substantive, scholarly paper.

Prerequisites: At least two courses from SOC-211, SOC-367 or SOC-412, and one course from the crime and justice minor electives, or permission of instructor

SOC-490 Independent Study 3 Credits F, I, S**SOC-491 Research** 3 Credits F, I, S**SOC-499 Honors Project** 3 Credits F, I, S**Related Courses: Social Work****SOC-254 Introduction to Social Work** 3 Credits F

Overview of the development of social work as a profession with an introduction to the various settings in which social work is practiced. Emphasis on the value orientation and ethical code of the profession and legal issues facing both practitioners and clients. Twenty hours of community service is a component of this course.

Prerequisites: SOC-101

SOC-255EX Introduction to Social Welfare Systems

3 Credits S

Traces the origins and development of current social welfare institutions and illuminates the philosophical and ethical considerations undergirding social policy while considering the merits and deficits of current social services. While a primary focus is on the political, economic and social context of the American welfare system, cross cultural comparisons are considered.

Prerequisites: ENG-110 and SOC-101

General education: ethical reasoning and experiential learning

SOC-451 Counseling and Personal Development

3 Credits F

Basic counseling skills and models are outlined for students who plan to enter a helping profession. Primary focus is placed on current counseling techniques and strategies. Helping skills such as attending, reflecting, clarifying, empathizing, supporting, examining feedback, confronting and facilitating group process are treated. Goal setting, decision making, self awareness and referral techniques are also included.

Prerequisites: SOC-101

SOC-481X Field Experience in Social Welfare

3 or 12 Credits F, I, S

Provides social work experience through placement in a human service agency. Placement may be arranged for 12 weeks of a full time experience during the normal semester or on a part-time basis for 3 credit hours. The experience is under careful supervision of both the agency and the sociology department. The student's interest influences the choice of an agency. One hundred twenty hours of participation are required for 3 credit hours and 480 hours are required for 12 credit hours.

Prerequisites: ENG-110, SOC-254, SOC-255 and SOC-451, or permission of instructor

General education: experiential learning

SOC-482 Proseminar in Social Work Ethics

3 Credits F, S

This independent study may only be taken by those students who are concurrently enrolled in SOC-481X: Field Experience in Social Welfare. In conjunction with the fieldwork placement, provides an advanced forum to discuss the social work profession. Implications of the Social Work Code of Ethics on professional conduct, as well as inter-agency approaches to social work and social welfare are explored.

WORLD LANGUAGES & CULTURES

MAJORS

French
Spanish

MINORS

French
German
Spanish

The department of world languages and cultures offers a proficiency-oriented program, which is designed for students who want to increase their language skills and expand their knowledge of the culture and literature from the various areas where the language is spoken. We offer a major and a minor in French and Spanish, as well as a minor in German through study abroad. Our majors study a core of courses designed to develop listening, speaking, reading and writing along with cultural sensitivity and knowledge. Students supplement the core with courses best suited to their future plans.

A French or Spanish major is an excellent basis for graduate study in many fields, and there is also currently a strong demand for world language teachers. In addition, many of our majors and minors study a world language as a type of “value-added” component to their studies in another field. As a result, alumni of Bridgewater’s world languages and cultures program are using their language skills in business, social work, government service, medicine and education. The study of a world language not only enriches a student’s liberal arts education through the understanding and appreciation of another culture and language, but also provides a practical skill for employment in the global community.

WORLD LANGUAGES AND CULTURES MAJOR

A major in French or Spanish consists of a minimum of 30–36 credit hours, depending on placement. A minimum of 30 credit hours must be taken in courses numbered 300 or above, and a semester in a study abroad program (see page 31 for a description of the program) or equivalent, usually in the student’s junior year, is strongly recommended.

World Languages and Cultures Recognition

Students receive a notation on their transcript upon completion of five courses in French, German, or Spanish, with a 2.0 average or higher, including FREN/GER/SPAN-201–202 (or placement). The three additional courses at the 300 or 400-level are selected in consultation with the French or Spanish advisor from the department’s course offerings taught in the world language (or from selected study abroad courses for the German Recognition).

Courses numbered 201 and 202 are prerequisite to all courses of a higher number taught in the language unless the department determines that a student is otherwise qualified.

FRENCH MAJOR

Requires the bachelor of arts degree. All majors must place at the advanced level on the world language placement test, or complete FREN-201–202 in order to begin the 30 hours of advanced work required in

the major. Twenty-four hours of advanced work must be taken on campus. The remaining 6 credits may include study abroad courses. Consists of 30–36 hours, depending on placement: FREN-201 and FREN-202 or placement at the advanced level.

Both of the following:

- FREN-310 Advanced Grammar and Composition *-and-*
- FREN-315 Special Topics in Writing

One of the following:

- FREN-320 Conversation and Diction *-or-*
- FREN-325 Art of Conversation

One of the following:

- FREN-340 French Culture and Civilization *-or-*
- FREN-345 Modern French Cultures

One of the following:

- FREN-401 Survey of French Literature I *-or-*
- FREN-402 Survey of French Literature II

One of the following:

- FREN-403 Survey of Francophone Literature *-or-*
- FREN-300 Special Cultural Topics in English *-or-*
- FREN-308 Francophone Cultural Studies

And 6 credits of electives from FREN courses numbered 300 or above; plus 6 additional credits from study abroad or other French-language experience at the advanced level.

FRENCH MINOR

All minors must place at the advanced level on the world language placement test or complete French 201–202 in order to begin the 21 hours of advanced work required. The French minor consists of 21–27 credit hours depending on placement and consists of:

Both of the following:

- FREN-310 Advanced Grammar and Composition *-and-*
- FREN-315 Special Topics in Writing

One of the following:

- FREN-320 Advanced Conversation and Diction *-or-*
- FREN-325 Art of Conversation

One of the following:

- FREN-340 French Culture and Civilization *-or-*
- FREN-345 Modern French Cultures

One of the following:

- FREN-401 Survey of French Literature I *-or-*
- FREN-402 Survey of French Literature II

And 6 credits in electives from FREN courses numbered 300 or above.

GERMAN MINOR

All minors must place at the advanced level on the world language placement test or complete German 201–202 in order to begin the 18 hours of advanced work required. The German minor consists of 18–24 credit hours depending on placement. Eighteen credit hours numbered 300 or above are chosen in consultation with the German minor advisor. Coursework is normally done in Germany, as part of the study abroad program, but some advanced coursework also may be transferred from their colleges or universities

with the approval of the vice present and dean for academic affairs.

SPANISH MAJOR

Requires the bachelor of arts degree. All majors must place at the advanced level on the world language placement test, or complete SPAN-201–202 in order to begin the 30 hours of advanced work required. Twenty-four hours of advanced work must be taken on campus. The remaining 6 credits may include study abroad courses. Consists of 30–36 hours, depending on placement: SPAN-201 and SPAN-202 or placement at the advanced level.

Both of the following:

SPAN-310 Advanced Grammar and Composition *-and-*
SPAN-315 Special Topics in Writing

One of the following:

SPAN-320 Conversation and Diction *-or-*
SPAN-325 Art of Conversation

Both of the following:

SPAN-340 Spanish Culture and Civilization *-and-*
SPAN-345 Latin American Culture and Civilization

One of the following:

SPAN-401 Spanish Literature *-or-*
SPAN-402 Latin American Literature

And 6 credits of electives from SPAN courses numbered 300 or above; plus 6 additional credits from study abroad or other Spanish-language experience at the advanced level.

SPANISH MINOR

All minors must place at the advanced level on the world language placement test or complete SPAN-201–202 in order to begin the 21 hours of advanced work required. The Spanish minor consists of 21–27 credit hours depending on placement and consists of:

Both of the following:

SPAN-310 Advanced Grammar and Composition *-and-*
SPAN-315 Special Topics in Writing

One of the following:

SPAN-320 Conversation and Diction *-or-*
SPAN-325 Art of Conversation

One of the following:

SPAN-340 Spanish Culture and Civilization *-or-*
SPAN-345 Latin American Culture and Civilization

One of the following:

SPAN-401 Spanish Literature *-or-*
SPAN-402 Latin American Literature

And 6 credits in electives from SPAN courses numbered 300 or above.

GENERAL EDUCATION

The College's general education requirement of courses in world cultures through language can be met by demonstrating proficiency at the 202-level or taking one class in world language at the 102 level or above.

COURSES

French

FREN-101, FREN-102 Elementary French I, II 3 Credits each F, S

Introduction to the structure and practice of modern French through the skills of speaking, listening, reading, writing and culture.

Prerequisites for FREN-102: FREN-101 or placement

FREN-201 Intermediate French I 3 Credits F

Strengthening the skills of speaking, listening, reading, writing and culture at the intermediate level. Modern cultural and literary texts are included.

Prerequisites: FREN-102 or placement

FREN-202 Intermediate French II 3 Credits S

Continued strengthening of core skills with a practical approach. Emphasis given to augment professional competency in the language through career-focused vocabulary and grammatical structures in key career fields. Modern cultural and literary texts are included.

Prerequisites: FREN-201 or placement

FREN-300 Special Cultural Topics in English 3 Credits I

Study of contemporary topics and world issues related to the cultures of the French-speaking world. Explores political, social and economic structures through literature, film, the visual arts and/or music. Taught in English. Credit available for French majors and minors upon completion of a French language component.

FREN-305 Paris and the Provinces 3 Credits I

Focuses on the varied cultures and regions of France. Travel begins in Paris and continues to other historically and culturally significant regions of the country. Includes visits to nearby Francophone regions.

FREN-308 Francophone Cultural Studies 3 Credits I

Travel course requiring immersion homestay and language courses. Covers themes of Francophone Caribbean societies and cultures within their social and political contexts. Includes excursions to several different islands to gain a greater awareness of the varied societies within these regional contexts.

FREN-310 Advanced Grammar and Composition 3 Credits F

Study and analysis of advanced grammatical structures, translation exercises and composition work.

Prerequisites: FREN-202 or permission of instructor

FREN-315 Special Topics in Writing 3 Credits F, S

Provides the tools to develop and enhance students' writing skills. Focuses on the skills involved in writing in a second language. Through a variety of writing techniques and reading material, such as newspaper and magazine articles, essays, among others, students broaden their vocabulary and learn how to write creatively and critically. May be taken more than once provided different topics are covered.

Prerequisites: FREN-202 or permission of the instructor

FREN-317 ESL and World Language Teaching (Cross-listed as ENG/SPAN-317) 3 Credits F

Covers materials on instructional practice and student assessment as they relate to the teaching of English as a Second Language (ESL) and world languages. Material and discussions are focused on the central theme of how to contextualize language instruction and how to run a proficiency-oriented classroom. Taught in English. Required for students seeking ESL endorsement. Strongly recommended for students preparing to teach Spanish or French.

Prerequisites: ENG-110

Corequisites: EDUC-307

FREN-320 Advanced Conversation and Diction 3 Credits F

Expansion of listening and speaking skills. A study of French phonetics to improve pronunciation skills.

Emphasis on development of oral communication skills sufficient to discuss complex issues and express abstract ideas.

Prerequisites: FREN-202 or permission of instructor

FREN-325 Art of Conversation 3 Credits F

Reinforces more advanced syntactical structures of the language. Further develops these and vocabulary through expository, persuasive, argumentative and debate-style speaking.

Prerequisites: FREN-202 or permission of instructor

FREN-330 Special Topics in Conversation 3 Credits F, S

Provides a practical opportunity to enhance students' oral and aural skills. Focus may include the discussion of practical topics related to careers such as medical, business, journalism, etc.

Prerequisites: FREN-202 or permission of the instructor

FREN-340 French Culture and Civilization 3 Credits F

Introduction to French culture and its historical development through the French Revolution. Emphasis on the intellectual, artistic, political, social, economic and educational factors. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-345 Modern French Cultures 3 Credits S

Introduction to French culture and its historical development after the Fall of the Ancient Regime and a study of modern-day France, including geography, and consideration of intellectual, artistic, political, social, economic and educational factors. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-350 Special Topics in Culture 3 Credits F, S

Study of specific topics related to the French language, culture and civilization. Recent topics include French Cinema, Regional Studies, etc. May be taken more than once provided different topics are covered. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-401 Survey of French Literature I 3 Credits S

Representative French authors from the Middle Ages through the 18th century including social and historical background. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-402 Survey of French Literature II 3 Credits S

Representative French authors from the 19th and 20th centuries. Social and historical background is included. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-403 Survey of Francophone Literature 3 Credits S

Writings of representative Francophone authors (African, Caribbean, Quebecois), primarily of short stories, poetry and plays. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-410 Special Topics in Literature 3 Credits F, S

Study of a specific literary topic. Topics may include a focus on French and/or Francophone genres, movements or regional studies. May be taken more than once provided different topics are covered. Taught in French.

Prerequisites: FREN-202 or permission of instructor

FREN-480 Internship 3 Credits F, I, S

FREN-490 Independent Study 3 Credits F, I, S

FREN-491 Research 3 Credits F, I, S

FREN-499 Honors Project 3 Credits F, I, S

German

GER-101, GER-102 Elementary German I, II 3 Credits each F, S

Introduction to the structure and practice of modern German through the skills of speaking, listening, reading, writing and culture.

Prerequisites for GER-102: GER-101 or placement

GER-201, GER-202 Intermediate German I, II 3 Credits each F, S

Strengthening the skills of speaking, listening, reading, writing and culture at the intermediate level.

Prerequisites for GER-201: GER-102 or placement

Prerequisites for GER-202: GER-201 or placement

GER-490 Independent Study 3 Credits F, S

Spanish

SPAN-101, SPAN-102 Elementary Spanish I, II 3 Credits each F, S

Introduction to the structure and practice of modern Spanish through the skills of speaking, listening, reading, writing and culture.

Prerequisites for SPAN-102: SPAN-101 or placement

SPAN-201 Intermediate Spanish I 3 Credits F

Strengthening the skills of speaking, listening, reading, writing and culture at the intermediate level. Modern cultural and literary texts are included.

Prerequisites: SPAN-102 or placement

SPAN-202 Intermediate Spanish II 3 Credits S

Continued strengthening of core skills with a practical approach. Emphasis given to augment professional competency in the language through career-focused vocabulary and grammatical structures in key career fields. Modern cultural and literary texts are included.

Prerequisites: SPAN-201 or placement

SPAN-300 Special Cultural Topics in English 3 Credits I

Study of contemporary topics and world issues related to the cultures of the Spanish-speaking world. Explores political, social and economic structures through literature, film, the visual arts, and/or music. Taught in English. Credit available for Spanish majors and minors upon completion of a Spanish language component.

SPAN-305 Culture of Costa Rica 3 Credits I

Travel course requiring immersion homestay and language courses in the capital city. Covers themes of Central American life and cultures. Includes excursions out of the city to gain a greater awareness of the whole society within the regional context.

SPAN-306 Culture of Mexico 3 Credits I

Travel course designed as a total immersion cultural experience. Classes in language, conversation and culture taken at a Mexican university in Cuernavaca. Students live with families. Includes weekend excursions and visits to museums. Taught in Spanish.

SPAN-308 Spanish Life and Culture 3 Credits I

History, culture and geography of Spain are studied by traveling from the austere Medieval castles in the Central region to the lush Islamic palaces in southern Spain.

SPAN-310 Advanced Grammar and Composition 3 Credits F

Advanced study of the most important grammatical structures of Spanish, and extensive practice of these structures in the context of the skill areas of listening, speaking, reading, writing and cultural competency.

Prerequisites: SPAN-202 or permission of instructor

SPAN-315 Special Topics in Writing 3 Credits F, S

Provides the tools to develop and enhance students' writing skills. Focuses on the skills involved in writing

in a second language. Through a variety of writing techniques and reading material, such as newspaper and magazine articles, essays, among others, students broaden their vocabulary and learn how to write creatively and critically. May be taken more than once provided different topics are covered.

Prerequisites: SPAN-202 or permission of the instructor

SPAN-317 ESL and World Language Teaching (Cross-listed as ENG/FREN-317) 3 Credits F

Covers materials on instructional practice and student assessment as they relate to the teaching of English as a Second Language (ESL) and world languages. Material and discussions are focused on the central theme of how to contextualize language instruction and how to run a proficiency-oriented classroom. Taught in English. Required for students seeking ESL endorsement. Strongly recommended for students preparing to teach Spanish or French.

Prerequisites: ENG-110

Corequisites: EDUC-307

SPAN-320 Advanced Conversation and Diction 3 Credits S

Develops and improves oral and listening skills, broadens vocabulary and strengthens grammar. Engages students in functional daily conversations and expression of opinions on culture and current issues. Includes writing component related to topics in the readings.

Prerequisites: SPAN-202 or permission of instructor

SPAN-325 Art of Conversation 3 Credits S

Reinforces more advanced syntactical structures of the language. Further develops these and vocabulary through expository, persuasive, argumentative and debate-style speaking.

Prerequisites: SPAN-202 or permission of instructor

SPAN-330 Special Topics in Conversation 3 Credits F, S

Provides a practical opportunity to enhance students' oral and aural skills. Focus may include the discussion of practical topics related to careers such as medical, business, journalism, etc.

Prerequisites: SPAN-202 or permission of the instructor

SPAN-340 Spanish Culture and Civilization 3 Credits S

The historical development of Spain including consideration of geography as well as political, social, economic, intellectual and artistic factors. Taught in Spanish.

Prerequisites: SPAN-202 or permission of instructor

SPAN-345 Latin American Culture and Civilization 3 Credits S

The historical development of Spanish-speaking and Latin America including consideration of geography as well as political, social, economic, intellectual and artistic factors. Taught in Spanish.

Prerequisites: SPAN-202 or permission of instructor

SPAN-350 Special Topics in Culture 3 Credits F, S

Study of specific topics related to the Hispanic language, culture and civilization. Recent topics include Hispanic Cinema, Hispanics in the U.S., Regional Studies, etc. May be taken more than once provided different topics are covered. Taught in Spanish.

Prerequisites: SPAN-202 or permission of instructor

SPAN-401 Spanish Literature 3 Credits F

Representative authors, works and literary movement of Spain including social and historical background. Taught in Spanish.

Prerequisites: SPAN-202 or permission of instructor

SPAN-402 Latin American Literature 3 Credits F

Representative authors, works and literary movements of Latin America including social and historical background. Taught in Spanish.

Prerequisites: SPAN-202 or permission of instructor

SPAN-410 Special Topics in Literature 3 Credits F, S

Study of a specific literary topic. Recent topics include Latin American short story, Generation of '98, and

Hispanic women writers. May be taken more than once, provided different topics are covered. Taught in Spanish.

Prerequisites: SPAN-202 or permission of instructor

SPAN-480 Internship	3 Credits	F, I, S
SPAN-490 Independent Study	3 Credits	F, I, S
SPAN-491 Research	3 Credits	F, I, S
SPAN-499 Honors Project	3 Credits	F, I, S

World Languages

LANG-101, LANG-102 Explorations of World Languages I, II 3 Credits each F, S

This course is to provide an elementary introduction to a non-European language and culture. Some examples could be, but not limited to: Arabic; Mandarin; Japanese; or other languages in demand. This course will provide an elementary understanding of alphabet/character set, pronunciation, themed vocabulary, basic communicative skills and grammar along with cultural knowledge, etc.

Prerequisites for LANG-102: LANG-101

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J. Bryan Duncan, *Associate Professor of English*;

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Charles Paul Fleis, *Associate Professor of World Languages and Cultures (on sabbatical 2014–2015)*; A.A., Northwestern Michigan College; B.A., M.A., Western Michigan University; D.M.L., Middlebury College; Bridgewater College, 2004–

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Anita L. Cook, *Instructor of English*; B.A., Wilmington College; M.A., Bowling Green State University; Bridgewater College, 2002–

Victoria M. Denlinger, *Instructor of Mathematics*; B.S., Bridgewater College; M.Ed., James Madison University; Bridgewater College, 2012–

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Henry J. Hill, *Instructor of Education*; B.S., M.A., West Virginia University; Bridgewater College, 1995–

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Shane D. Stevens, *Instructor of Computer Science*; B.A., Bridgewater College; M.B.A., James Madison University; Bridgewater College, 1982–

Amy G. Thompson, *Instructor of Chemistry*; B.S., Central Michigan University; M.S., Texas Tech University; Ph.D., The University of New Mexico; Bridgewater College, 2005–

Chad W. Trevitte, *Instructor of English*; B.A., Wake Forest University; M.A., Ph.D., University of North Carolina at Chapel Hill; Bridgewater College, 2008–

Maryann L. Wolfe, *Instructor of English*; B.A., West Virginia Wesleyan College; M.F.A., West Virginia University; Bridgewater College, 2007–

Eric M. Yoshizuka, *Lab Coordinator, Instructor of Biology*; B.S., University of California-Davis; M.S., University of Virginia; Bridgewater College, 2011–

Part-Time and Adjunct Faculty (at least three years at Bridgewater)

Richard C. Adams, *Music*; B.M.Ed., M.Ed., James Madison University

Rabbi Joseph Blair, *Philosophy and Religion*; B.A., M.C.S., University of Virginia; M.H.L.,

Reconstructionist Rabbinical College; J.D., Marshall-Wythe School at the College of William and Mary

Beth R. Boteler, *Health and Human Sciences*; B.S., M.Ed., Virginia Polytechnic Institute and State University

Sarah M. Cook, *Health and Human Sciences*; B.S., Colby-Sawyer College; M.A., University of Minnesota; ATC Board of Certification, VATT, Commonwealth of Virginia Board of Medicine

Randy Covington, *English*; B.A., M.A.T., University of Virginia

Julie B. Foster, *Education*; A.A., Hagerstown Junior College; B.S., M.S., James Madison University

Arthur J. Gumenik, *Accounting*; B.A., Queens College of the City University of New York; M.A., M.S., University of Virginia; Ph.D., Virginia Commonwealth University

Michael S. Hensley, *Biology*; B.A., Bridgewater College; M.S., James Madison University; Ph.D., University of Tennessee

Na Lu, *Chemistry*; B.S., M.S., South China University of Technology; Ph.D., City University of New York

Robert R. Miller, *College Chaplain*; B.A., Bridgewater College; M.Div., Bethany Theological Seminary; D.Min., Wesley Theological Seminary

Susan D. Muterspaugh, *Health and Human Sciences*; B.A., Virginia Polytechnic Institute and State University; M.A., University of Virginia; Ph.D., New York University

Elizabeth Smith, *Religion*; B.A., Bridgewater College; M.A., Union Theological Seminary and Presbyterian School of Christian Education

David Snively, *Music*; B.M., M.M., Eastman School of Music

Angela Spotts, *Health and Human Sciences*; B.S., Bridgewater College; M.S., East Stroudsburg University

Rhonda L. Stees, *Music*; B.M.Ed., University of Illinois; M.M., Arizona State University

Dillina W. Stickley, *Economics and Business Administration*; J.D., Washington and Lee School of Law

Emeritus/Emerita Faculty

Phillip C. Stone, *President, Emeritus*; B.A., Bridgewater College; J.D., University of Virginia; Bridgewater College, 1994–2010

Wayne F. Geisert, *President and Professor of Economics, Emeritus*; A.B., McPherson College; Ph.D., Northwestern University; Bridgewater College, 1964–1994

Arthur C. Hessler, *Vice President for Academic Affairs and Dean of the College, Emeritus*; B.S., University of Wisconsin; M.S., Eastern Michigan University; Ph.D., University of Vermont; Bridgewater College, 1998–2007

Dale V. Ulrich, *Provost, Dean and Professor of Physics, Emeritus*; B.A., University of LaVerne; M.S., University of Oregon; Ph.D., University of Virginia; Bridgewater College, 1958–1961, 1964–1999

K. Gary Adams, *Professor of Music, Emeritus*; B.M., M.M., Baylor University; Ph.D., University of North Texas; Bridgewater College, 1982–2012

John G. Barr, *Professor of Organ and Piano, Emeritus*; B.S., Manchester College; S.M.M., S.M.D., Union Theological Seminary; Bridgewater College, 1968–2003

Emmert F. Bittinger, *Professor of Sociology, Emeritus*; B.A., Bridgewater College; M.A., University of Maryland; B.D., Bethany Theological Seminary; Ph.D., University of Maryland; Bridgewater College, 1963–1988

Barbara P. Black, *Professor of Foreign Languages, Emerita*; B.A., Mary Washington College; M.A., Middlebury College; M.A., Ph.D., Tulane University; Bridgewater College, 1983–2012

Daniel W. Bly, *Assistant Professor of History, Emeritus*; B.A., Bridgewater College; M.A., Temple University; Bridgewater College, 1965–1967, 1969–2003

Richard L. Bowman, *Professor of Physics, A. Leroy and Wanda H. Baker Chair of Science, Emeritus*; B.S., Eastern Mennonite College; M.A., Kent State University; Ph.D., Oregon State University; Bridgewater College, 1986–2012

Erich E. Brumbaugh, *Professor of Chemistry, Emeritus*; B.A., Bridgewater College; Ph.D., University of Virginia; Bridgewater College, 1986–2013

David E. Coffman, *Professor of Education, Emeritus*; B.A., Bridgewater College; M.A., Appalachian State University; Ed.D., Virginia Polytechnic Institute and State University; Bridgewater College, 1991–2012

Charles J. Churchman, *Professor of English, Emeritus*; B.A., M.A., University of Virginia; Ph.D., University of Tennessee; Bridgewater College, 1967–1994

Jon L. Dellelt, *Assistant Professor of Mathematics, Emeritus*; A.B., Fort Hays Kansas State College; M.A.L.S., Wesleyan University; M.S., New Mexico State University; Bridgewater College, 1972–2004

James W. Eaton, *Professor of Economics and Business Administration, Emeritus*; B.S., M.B.A., University of Arkansas; Ph.D., University of Missouri-Columbia; Bridgewater College, 1985–2012

Arthur J. Gumenik, *Carman G. Blough Associate Professor of Accounting, Emeritus*; B.A., Queens College of the City University of New York; M.A., M.S., University of Virginia; Ph.D., Virginia Commonwealth University; Bridgewater College, 1990–

Michael S. Hensley, *Harry G. M. Jopson Professor of Biology, Emeritus*; B.A., Bridgewater College; M.S., James Madison University; Ph.D., University of Tennessee; Bridgewater College, 1986–

L. Michael Hill, *Harry G. M. Jopson Professor of Biology, Emeritus*; B.S., Alabama College; M.S., Tennessee Technological University; Ph.D., University of New Hampshire; Bridgewater College, 1972–2007

Lanny W. Holsinger, *Professor of Education, Emeritus*; B.A., Bridgewater College; M.S., James Madison University; C.A.G.S., Ed.D., Virginia Polytechnic Institute and State University; Bridgewater College, 1987–2004

Jesse E. Hopkins Jr., *Edwin L. Turner Distinguished Professor of Music, Emeritus*; B.S., Bridgewater College; M.M.E., James Madison University; Ed.D., Mus., University of Illinois; Bridgewater College, 1977–2012

Robert B. Houts Jr., *Associate Professor of Spanish, Emeritus*; B.A., Bob Jones University; M.A., University of Tennessee; Bridgewater College, 1963–1969, 1970–1992

Robert L. Hueston, *Associate Professor of Accounting, Emeritus*; B.A., Bethany College; M.B.A., University of Wisconsin; C.P.A.; Bridgewater College, 1953–1986

Frederick G. Keihn, *Professor of Chemistry, Emeritus*; B.S., Randolph-Macon College; M.S., Lehigh University; Ph.D., Syracuse University; Bridgewater College, 1967–1986

George Webster Kent, *Associate Professor of Psychology, Emeritus*, B.A., Franklin College; M.A., University of Oregon; Bridgewater College, 1954–1991

Manown Kisor Jr., *Associate Professor of Business Administration, Emeritus*; B.A., Trinity College; M.B.A., New York University; Graduate Study, Northwestern University; Bridgewater College, 1989–2005

Ralph C. MacPhail Jr., *Professor of Communication Studies, Theatre, and English, Emeritus*; B.A., Bridgewater College; M.F.A., Virginia Commonwealth University; Bridgewater College, 1972–2005

Laura Susan Mapp, *Associate Professor of Physical Education, Emerita*; B.S., University of Richmond; M.S., University of Tennessee; Bridgewater College, 1961–1998

W. Robert McFadden, *Anna B. Mow Professor of Religion, Emeritus*; B.A., Manchester College; B.D., Bethany Theological Seminary; Th.D., Boston University; Bridgewater College, 1961–1998

David K. McQuilkin, *Professor of History and Political Science, Emeritus*; B.A., Muskingum College; M.S.(L.S.), Case Western Reserve University; M.A., Ph.D., Kent State University; Bridgewater College, 1985–2009

Lowell A. Miller, *Business Manager and Treasurer, Emeritus*; B.A., Bridgewater College; Bridgewater College, 1958–1983

Lamar B. Neal, *Associate Professor of Political Science and History, Emeritus*; B.S., M.S., Mississippi State University; J.D., LL.M., University of Mississippi; Bridgewater College, 1971–1998

Dean Royce Neher, *Professor of Computer Science and Physics, Emeritus*; B.S., McPherson College; M.S., Ph.D., University of Kansas; Bridgewater College, 1961–1994

Philip F. O'Mara, *Associate Professor of English,*

Emeritus; B.A., St. John's University; M.A., Ph.D., University of Notre Dame; Bridgewater College, 1989–2008

Susan L. Piepke, *Professor of Foreign Languages, Emerita*; B.A., State University of New York; M.A., University of Rochester; M.A., D.M.L., Middlebury College; Bridgewater College, 1988–2012

Raymond J. Schneider, *Associate Professor of Computer Science, Emeritus*; B.S., St. Joseph's College; M.S., Pennsylvania State University; Ph.D., George Mason University; Bridgewater College, 2002–2012

John S. Spencer, *Assistant Professor of Health and Exercise Science, Emeritus*; B.A., B.S., Shepherd College; M.A., Appalachian State University; Bridgewater College, 1967–2003

Daniel M. Spitzer Jr., *Professor of Business Administration, Emeritus*; B.A., M.S., University of Virginia; M.B.A., College of St. Thomas; Ph.D., University of Virginia; Bridgewater College, 1989–2000

Nancy W. St. John, *Professor of Family and Consumer Sciences*; B.S., Southeast Missouri State University; M.S., Ph.D., Florida State University; Bridgewater College, 1988–2012

Grace F. Steinberg, *Assistant Professor of Family and Consumer Sciences, Emerita*; B.S., William Woods College; M.S., University of Missouri at Columbia; Bridgewater College, 1981–2008

Janet W. Stevens, *Assistant Professor of Home Economics, Emerita*; B.S., University of Maryland; M.Ed., James Madison University; Bridgewater College, 1978–1986

Sarah E. Swank, *Professor of Biology, Emerita*; B.S., James Madison University; M.A., University of Virginia; Ph.D., University of Southern California; Bridgewater College, 1981–2007

Gary L. Tyeryar, *Professor of English, Emeritus*; B.A., Western Maryland College; M.A., Rice University; Ph.D., University of Wisconsin; Bridgewater College, 1968–2002

Fred F. Wampler, *Professor of Education, Emeritus*; B.A., Bridgewater College; M.A., George Washington University; Ed.D., University of Maryland; Bridgewater College, 1957–1988

W. Steve Watson Jr., *Lawrance S. and Carmen C.*

Miller Chair of Ethics Associate Professor of Philosophy and Religion, Emeritus; B.A., Furman University; M.Div., Southeastern Baptist Seminary; Graduate Study, Emory University; Bridgewater College, 1970–2013

John E. White, *Associate Professor of Mathematics, Emeritus*; B.A., Bridgewater College; M.S., Virginia Polytechnic Institute and State University; Bridgewater College, 1960–1963, 1965–2000

Carlyle Whitelaw, *Associate Professor of Physical Education, Emeritus*; B.A., Bridgewater College; M.Ed., University of Virginia; Bridgewater College, 1969–1997

Leroy G. Williams, *Professor of Computer Science, Emeritus*; B.S., Heidelberg College; M.S., U.S. Naval Postgraduate School; Ph.D., George Mason University; Bridgewater College, 1995–2014

Donald R. Witters, *Professor of Psychology, Emeritus*; B.A., Elizabethtown College; B.D., Bethany Theological Seminary; M.A., Ph.D., Arizona State University; Bridgewater College, 1968–2006

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Bridgewater College does not discriminate on the basis of race, color, national origin, sex, disability, religion or age in the administration of its educational policies, admissions policies, scholarship and loan programs, athletic programs, or other college programs and activities, or with regard to employment.

The following person has been designated to handle inquiries regarding the non-discrimination policies:

Roy W. Ferguson, Jr.
Bridgewater College, *Executive Vice President*
402 East College Street, Bridgewater, VA 22812
540-828-5307, rferguso@bridgewater.edu

Title IX, the federal law that prohibits sex discrimination, provides that "no person...shall, on the basis of sex, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance...." The following are examples of sex-based discrimination prohibited by Title IX:

1. Sexual harassment, including sexual assault, occurring in connection with any academic, athletic, extracurricular, or other College program, regardless of the location;
2. Discriminatory decision-making by a supervisor of an employee based on the employee's sex;
3. Failure to provide equitable opportunities for participation in intercollegiate sports.

The College's Title IX Coordinators are the designated college officials with primary responsibility for coordinating the College's compliance with Title IX and other federal and state laws and regulations relating to sex-based discrimination.

Victoria L. Ingram, *Director of Human Resources*
Title IX Coordinator
402 East College Street, Bridgewater, VA 22812
540-828-5393, vingram@bridgewater.edu

Crystal R. Lynn, *Associate Dean of Students*
Deputy Title IX Coordinator—For Students
402 East College Street, Bridgewater, VA 22812
540-828-5356, clynn@bridgewater.edu

Jean Willi, *Associate Director of Athletics, Senior Women's Administrator, Head Coach—Women's Basketball*
Deputy Title IX Coordinator—For Athletics
402 East College Street, Bridgewater, VA 22812
540-828-5400, jwilli@bridgewater.edu

Students who have a disability that they would like to disclose for purposes of special needs or accommodations, or who have questions about disability services, should contact:

Dr. Raymond "Chip" Studwell, *Director of Academic Support Services*
Section 504 Coordinator
402 East College Street, Bridgewater, VA 22812
540-828-5370, cstudwel@bridgewater.edu

For further information on the notice of non-discrimination, visit <http://wdcrobc01p01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the office of the U.S. Department of Education, Office for Civil Rights that serves your area, or call 1-800-421-3481.

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