



Washington & Jefferson College 2008-2010 Catalog

This catalog represents the most accurate information on Washington & Jefferson College available at the time of printing. The College reserves the right to make alterations in its programs, regulations, fees, and other policies as warranted.

For More Information

www.washjeff.edu

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Washington & Jefferson College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, Pennsylvania 19104, 267-284-5000. The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

Washington & Jefferson College does not discriminate in its educational programs, activities, or employment on the basis of race, religion, sex, sexual orientation, age, disability, national origin, or any other nationally protected legal status in accordance with applicable state and federal laws. In addition, W&J complies with applicable state and federal laws governing nondiscrimination in employment. Inquiries may be directed to the Affirmative Action Officer, Washington & Jefferson College, 60 South Lincoln Street, Washington, Pennsylvania 15301. 724-503-1001, ext. 3012.

2008–2009 ACADEMIC CALENDAR

2008 Fall Term

August

- 29 Matriculation
- 29–31 Freshman Orientation

September

- 1 Classes begin, 8 a.m.
Convocation
- 5 Add/drop period ends, 5 p.m.
- 8 First day of course withdrawals

October

- 10 Midterm
- 13–14 Fall Break
- 15 First day for S/U requests
- 17–18 Homecoming Weekend
- 28 Last day for S/U requests and course withdrawals

November

- 25 Thanksgiving recess begins, 5 p.m.

December

- 1 Thanksgiving recess ends, 8 a.m.
- 5 Classes end
- 6–7 Reading Days
- 8 Fall examinations begin, 8 a.m.
- 13 Fall examinations end
Holiday recess for students begins, 5 p.m.
- 24 Holiday break begins (all College offices and buildings closed between Christmas and New Year's Day)

2009 Intersession

January

- 5 Classes begin, 8 a.m.
- 6 Add/drop period ends, 5 p.m.
- 12 First day for S/U requests
- 19 Last day for S/U requests and withdrawals
- 23 Classes end

2009 Spring Term

January

- 28 Classes begin, 8 a.m.

February

- 3 Add/drop period ends, 5 p.m.
- 4 First day of course withdrawals

March

- 13 Midterm
Spring recess begins, 5 p.m.
- 23 Spring recess ends, 8 a.m.
First day for S/U requests

April

- 3 Last day for S/U requests and course withdrawals
- 16 Honors Convocation

May

- 5 Classes end
- 6 Reading Day
- 7 Spring examinations begin, 8 a.m.
- 12 Spring examinations end, 5 p.m.
- 15 Baccalaureate
- 16 Commencement

NOTE: While this catalog covers the 2008–2010 academic years, the 2009–2010 academic calendar had not been set at the time of publication. Please check the College Web site, www.washjeff.edu, or contact the Office of Academic Affairs in the spring term of 2009 for a copy of the 2009–2010 academic calendar.

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ABOUT W&J



THE MISSION OF THE COLLEGE

The College's mission is to graduate men and women of uncommon integrity, competence, and maturity who are effective lifelong learners and responsible citizens, and who are prepared to contribute substantially to the world in which they live. To this end, the College promotes the development of skills, knowledge, personal qualities, and a worldview that characterize a well-educated person.

All components of the living and learning environment at W&J are designed and intended to support this mission. This catalog and the *Student Handbook* describe the expectations of W&J students and resources available to support their development.

Washington & Jefferson College is one of the nation's oldest and most distinguished liberal arts colleges for undergraduate students. The College offers a challenging and stimulating educational program and promotes the development of the skills, knowledge, and personal qualities that characterize a well-educated individual.

Because learning is an active process in a community of scholars, W&J encourages its students to develop the habit of self-reliance, to acquire effective communicative skills, and to assume responsibility in their educational and personal development. The College also recognizes that it must provide the environment and the opportunities for students to mature physically, morally, and socially through participation in diverse campus and community activities.

All facilities and resources of Washington & Jefferson College are committed to attaining these objectives. The College is governed by its own self-perpetuating Board of Trustees.

HISTORY

W&J is a modern educational institution with roots reaching back to frontier days. The corporate history of the College dates from 1787, but its history reaches even farther back.

Between 1781 and 1787, three Presbyterian ministers established schools in Washington County, then the frontier of the American west. The Reverend Thaddeus Dod, the Reverend Joseph Smith, and The Reverend John McMillan then decided to establish a single academy with better facilities than they possessed individually. In September 1787, a charter was granted for an academy to be situated in Washington, the county seat. On April 10, 1789, Washington Academy opened.

A few years later, a move to establish a school in nearby Canonsburg resulted in a charter being issued in 1794 for The Canonsburg Academy and Library Company. In 1802, this school was chartered by the Pennsylvania legislature as Jefferson College. Four years later, Washington Academy received its charter as Washington College.

Rivalry between the two small colleges, located in towns only ten miles apart, served to block the progress of both. Lack of money was a hindrance to their development. From time to time, suggestions were heard that the two colleges merge, but nothing developed until inadequate financial resources and the decline in enrollment at both schools because of the Civil War made such a step necessary. In March 1865, the Pennsylvania legislature granted a charter for a united college, but with the provision that some classes be taught in Canonsburg and others in Washington. This arrangement proved impractical, and in 1869, the legislature authorized reorganization of the College. Two months later, the trustees voted that all departments be located in Washington.

The College became firmly established and grew into a well-known educational institution under leadership of dedicated presidents. It purposely remained a small, all-male liberal arts college for many years.

In 1969, the College authorized granting of undergraduate degrees to women and inaugurated a new curriculum and calendar. The first undergraduate women students were admitted in September 1970.

Now, in its third century, the College continues to offer modern educational opportunities while adhering to long-established principles. It provides its students with an opportunity to obtain a sound general education in the arts and sciences. The College

continually assesses learning outcomes and institutional effectiveness to achieve these means as part of planning and institutional improvement.

Fully accredited by the Middle States Association of Colleges and Schools, W&J is a private, independent educational institution devoted to the training of men and women qualified for their tasks both in scholarship and in character.

FACULTY

W&J faculty are master teachers, mentors, and advisors who take an active interest in students' futures and their preparedness for life beyond campus. Fulbright Fellows, world travelers, and nationally recognized experts in their fields, faculty members come to W&J because they love to teach and share their knowledge and experiences. W&J's student-to-faculty ratio is 12:1. Of the College's full-time faculty, more than 86 percent hold terminal degrees in their fields.

THE ACADEMIC YEAR

W&J's curricular offerings are organized around a 4-1-4 academic calendar, where 4-1-4 refers to the typical course load during the major yearly academic sessions. Fall and spring terms, each 14 weeks long, sandwich a three-week long Intersession. Intersession is a unique opportunity at W&J for students to broaden and deepen their academic experience. Each year during the month of January, students have the opportunity to travel abroad, study other cultures, and experience life in another country. Alternatively, students may stay on campus and choose to concentrate on one of many Intersession courses that expand the regular curriculum. Some students use this month to pursue off-campus internships or to complete independent study.

BEYOND THE CLASSROOM

ATHLETICS AND RECREATION

The W&J Presidents compete in 24 inter-collegiate sports as well as five active club sports. W&J is a member of the National Collegiate

Athletic Association (NCAA) Division III, the President's Athletic Conference (PAC), Eastern Collegiate Athletic Conference (ECAC) and the Empire 8 Conference. In addition to varsity sports squads, 45 percent of W&J students participate in team and individual intramural sports.

The Washington & Jefferson College Department of Athletics is dedicated to providing quality programs and athletic experience which assist in complementing and fulfilling the College's educational objectives of academic excellence.

The department of athletics prides itself on providing experiences which will enable its student-athletes to interact with the student body while challenging themselves both mentally and physically. This experience should promote attitudes of integrity, sportsmanship, self-discipline, and respect for others, while testing their own limits. The student-athletes should gain from the demands and realities of athletic competition and the success and adversity that accompany it.

For student athletes, inter-collegiate competition provides a unique opportunity to experience teamwork, perseverance, and self-discipline. These qualities have served former W&J student-athletes well throughout the lives.

Academic demands and focus take a priority in the college experience; however, the Department of Athletics believes that academic success fosters athletic success, and strives to ensure that the student-athletes have the means necessary to reach their individual and team goals.

The W&J Department of Athletics promotes pride and unity within the college community and provides opportunities to develop, strengthen, and maintain ties to alumni, supporters, friends, and the local community.

FILM

The Student Activities Board presents a film each week throughout the academic year. Genres vary to suit a variety of tastes. Film series and discussions are also offered to the College community.

LECTURESHIPS

Through lectureships, such as the William Thomas B. Seabright Lectureship in History and the Class of 1908 Lectureship in Politics, W&J hosts many nationally known lecturers who

address important issues related to topics such as religion, politics, the arts, and the environment. Most recently, figures such as poet W. D. Snodgrass, bestselling author Alan Weisman (*The World Without Us*) and Phi Beta Kappa Visiting Scholar Lori Damosch have lectured at W&J. These lectures are open to the College community and the general public at no charge.

OLIN GALLERY

A showcase for the works of local, national, and international artists, Olin Gallery is located in Olin Fine Arts Center. Throughout the academic year, the Gallery hosts artists of many different mediums, including sculpture, photography, ceramics, and painting.

STUDENT PUBLICATIONS

Student publications include *Pandora*, the campus yearbook; *Red & Black*, the weekly campus newspaper; and *Wooden Tooth Review*, the campus literary journal of student poetry, fiction, nonfiction, drama, and artwork.

STUDENT ORGANIZATIONS

With more than 100 organizations and clubs on campus, students can get involved in a range of activities. Those include academic honoraries, fraternities, and sororities; activities such as student government and the Franklin Literary Society; and clubs such as Hillel and the Newman Club, the Asian Student Association and the Black Student Union, the Gay Straight Alliance, the College Democrats and the Young Republicans, and the Bottega Art Club and WNJR Radio.

For more information about WNJR, please contact the Department of Theatre and Communication.

THEATRE

The W&J Student Theatre Company presents two to three productions each academic year. Productions range from contemporary drama and comedy to Shakespeare, musicals, and original works. Recent productions have included Sophie Treadwell's *Machinal*, *The Idiots Karamazov*, and the *Little Shop of Horrors*.

TOPIC: THE WASHINGTON & JEFFERSON COLLEGE REVIEW

Founded in 1961, *Topic* is published annually by Washington & Jefferson College. Edited by members of the faculty and featuring inter-

national contributors, the journal offers intellectual and accessible debate to both academics and general readers. Each issue addresses a single theme or subject, most often focusing on history, literature, and culture. *Topic* features clear and graceful writing that promotes its mission of reaching across disciplinary boundaries and beyond the walls of the ivory tower.

VOLUNTEER AND COMMUNITY SERVICE
W&J provides students with ample opportunities to enjoy the enriching experience of contributing to the community. Every year, faculty, staff, and students perform thousands of hours of community service throughout Washington County—helping local organizations such as the City Mission and the United Way to raise funds, building affordable housing for underprivileged families as part of Habitat for Humanity's Collegiate Challenge, participating in community events such as the Special Olympics, mentoring local children, and getting involved in clothing and food drives. The Office of Volunteer Services, located on the upper level of the Rossin Campus Center, coordinates requests from the surrounding area seeking volunteers for community projects. Students can register with the office at any time throughout the academic year.

WNJR

Located in The Commons building, WNJR is a nonprofit radio station that provides opportunities for students to participate in music and sports broadcasting, both on the air and behind the scenes. The station broadcasts at 91.7 FM and over the Internet (www.washjeff.edu/wnjr) around the clock and throughout the calendar year. Contact the Department of Theatre and Communication for more information.

THE CAMPUS

Washington & Jefferson College is located in the city of Washington, a southwestern Pennsylvania community of more than 15,000 people, 30 miles south of Pittsburgh. At W&J, students enjoy the advantages of a small-town atmosphere while having access to the many attractions of the city of Pittsburgh. W&J's 60-acre campus includes more than 40 academic, recreational, and residential buildings.

Admission House, located on Wheeling Street, houses the Office of Admission and the Office of Financial Aid.

Previously used as an upper-class dormitory facility, formerly known as Wheeling House, the **Alumni House** sits adjacent to Olin Fine Arts Center on Wheeling Street. It is a beautifully restored Victorian house with a mahogany-paneled study, parlor with fireplace, walnut-paneled dining room, and full kitchen with breakfast nook. The second story houses the offices of the alumni relations staff, while the third floor houses the annual fund and the phonathon center.

Athletic facilities used by W&J's sports teams are of the highest quality in Division III athletics. Facilities include Alexandre Stadium, which was dedicated in 2004 and hosts men's and women's soccer and men's lacrosse; Brooks Park, which was renovated in 2004 and hosts softball only; and Ross Memorial Park, which hosts baseball only. Cameron Stadium is home to W&J's football program.

The Howard J. Burnett Center, incorporates state-of-the-art technology into classrooms, specialized program areas, and offices. The Burnett Center houses the Departments of Economics/Business, Modern Languages, Education, and the Entrepreneurial Studies Center.

Cameron Stadium, on the site of historic College Field (bought by W&J in 1891), is one of the best facilities in Division III athletics. A state-of-the-art playing surface, eight-lane track, renovated locker rooms, and a jumbo electronic scoreboard have transformed College Field into a first-class venue for W&J sports. The Stadium's Hall of Fame celebrates the generations of athletic excellence that is such an essential component of the fabric of W&J.

The Commons, the major dining facility on campus, also includes the Ski Lodge student lounge as well as offices for the College's radio station, newspaper, yearbook; the Black Student Union, a convenience store and Barista Café, and a media room for the film series sponsored by the College.

Davis Memorial, built in 1848 as a family mansion and remodeled by the College in 1947 for academic purposes, contains the Department of English offices.

The Dieter-Porter Life Science Building, dedicated in 1981, contains classrooms, laboratories, a lecture hall, and all facilities for the teaching of biology and psychology. Renovations to the existing facility will be complete in 2010, and will include improvements to animal laboratories and complete interior upgrades, as well as teaching space for the Environmental Studies Program.

Henry Memorial Center includes the main gymnasium with seats for 2,800, separate swimming and diving pools with spectator space for 500, auxiliary gyms, aerobics rooms, racquetball, and squash courts as well as state-of-the-art training room facilities.

The Hub, formerly known as the ITS Building, was renovated during the 2006-07 academic year to return it to its original purpose as a student activities center. As the "hub" of student activities on campus, this building boasts an outdoor patio, lounge areas, a plasma TV, gaming systems, card tables, programming space, meeting rooms, arcade games, pool tables, and much more. The Hub is also the home of the Office of Student Activities, intramurals and club sports, The Student Health and Counseling Center, Monticello's, the Student Government Association, and the Student Activities Board.

Lazear Chemistry Hall has 50 rooms and laboratories with modern equipment for the study of chemistry.

The Livingroom is a newly renovated area located behind the mail room in the Rossin Campus Center. This area is furnished with several couches and other seating areas, making it a great place for students to sit and read their mail, study, or just visit with friends.

McMillan Hall is the oldest college building west of the Allegheny Mountains and the eighth oldest college building in continual use in the United States. Built over the period of 1793-1794, it was the first W&J building and

now houses the president's office and various other administrative offices. Named to the National Register of Historic Places in 1977, McMillan Hall now sits approximately 100 feet east of its original location.

Malcolm Parcell Room is now an integral part of the student dining space, The Commons. This room and several other dining spaces contain works of art by the distinguished regional artist Malcolm Parcell. These rooms reflect a cooperative relationship between the College and the Malcolm Parcell Foundation. The Malcolm Parcell Room was made possible through the gracious support of Dr. E. Ronald Salvitti '59.

The U. Grant Miller Library was constructed in 1965 on property donated by College trustee U. Grant Miller, 1907. The library houses an open collection that includes more than 200,000 items in print, microfilm, audio, and video formats. Online services, including federated searching and open URL link-resolving, offer students access to more than 12,000 electronic journal and newspaper titles.

Along with more than 4,000 sound recordings, 14,000 microfilms, and 4,000 videos, the library maintains an extensive rare book archive, and special collections library. The Walker Room, on the lower level of the library, is a recreation of John Walker's private library as it existed in his Western Avenue mansion in Pittsburgh. It provides an excellent space for reading and study.

Staffed by five librarians, six technicians, and more than 20 student workers, the library is open 109 hours per week during regular sessions and supports the latest in PC technology, including scanners and software for editing digital images. Librarians are available to assist students with all their information needs, including research, computer-related issues, and group and individual instruction on a variety of topics.

In November 2008, a 12-month project to convert the classification system from Dewey Decimal to the Library of Congress scheme will be completed. The majority of the Library's circulating collection will now use LC Classification.

Old Main has served virtually every student of the College since the construction of its central portion in 1836. The four stories contain classrooms, faculty offices, and the College Chapel. Its twin towers, built in 1865, commemorate the successful union of two independent colleges, Washington College and Jefferson College.

Olin Fine Arts Center, a gift of the F.W. Olin Foundation, was dedicated in the spring of 1982. It includes classrooms and offices for the Departments of Art, Theatre, and Communication, and Music as well as an art gallery and a fully-equipped 488-seat auditorium.

The President's House was presented to the College by members of the Duncan family, long-time friends and benefactors of W&J. It is the home of W&J's current president, Dr. Tori Haring-Smith.

Residence Halls include Alexander Hall, Marshall Hall, Beau III Hall, Mellon Hall, and Upperclass Hall. Two of the newest residence halls, New Residence Hall and Bica-Ross Hall, are coeducational dormitories. Each features 24 contemporary, suite-style units, with modern amenities, including air conditioning and key-card access. Each suite includes a common area, two single rooms, and one double room. In 2005, 10 theme houses were completed on the Chestnut Street side of campus. These freestanding structures allow groups of students with common academic or social interests to live together. Each house is designed to look like a home, not a dorm, and includes a front porch, living room, and common kitchen. Eight Greek organizations and three theme groups currently occupy these units. Presidents' Row, located in a quadrangle area of campus, consists of ten individual units—each named after a former U.S. president. Each unit contains a lounge, meeting rooms, living quarters for 35 students and theme oriented, such as the pet house and intensive study/24-hr. house. Small group housing and apartment-style living arrangements are available for upper-class students on a limited basis.

Rossin Campus Center, connected to The Commons via a lounge bridge, features a multipurpose room, or "ballroom," that can be used for dances, banquets, and performances.

The room can also be divided into conversation nooks or seminar space. Rossin Campus Center also houses the campus bookstore, George & Tom's Place, the campus post office, and administrative offices for student life and career services.

Janet L. Swanson Tennis Courts, with an all-weather surface, are adjacent to Henry Memorial Center.

The John A. Swanson Science Center, scheduled to open in 2010, will be dedicated to the physical sciences, including physics and chemistry. The 45,000 square foot state-of-the-art facility will offer wet and dry teaching laboratories, research and classroom space, faculty offices, conference rooms, and break-out spaces that cultivate a community learning environment. The John A. Swanson Science Center will be erected on the site previously occupied by McIlvaine Hall, which housed the Departments of Philosophy and Sociology, as well as the Environmental Studies Program.

The Swanson Wellness Center offers the College community the latest in modern fitness technology. Located in the Old Gym, the Center is a fitness facility for students, faculty, and staff. The Center features a walking track and an assortment of state-of-the-art cardiovascular equipment, strength-training machines, and free weights.

The Technology Center is a state-of-the-art learning facility. The 74,000-square-foot facility provides students and faculty with unparalleled resources in advanced information technology. It houses more than 200 computer workstations, a Global Learning Unit, "smart classrooms," seminar rooms, and fully-equipped classrooms and offices.

Thistle Physics Building contains classrooms, laboratories, and lecture rooms designed for teaching physics and related subjects.

Thompson Memorial was built to house the College library and today is the site of the Office of Academic Affairs, the Registrar, Off-Campus Study, the Business Office, and other administrative offices.

THE CURRICULUM
AND
GRADUATION REQUIREMENTS



Washington & Jefferson College offers a liberal arts education with sufficient breadth and depth to allow students to pursue a great variety of personal and career interests. There are more than 40 majors and programs. The College intends not only that students study one or more areas intensively, but also that students come to see the relationship of their fields of study to the rest of human knowledge. The College curriculum promotes the broad perspectives, academic learning, and personal qualities required for lifelong learning and responsible, productive citizenship.

CATALOG OF ENTRY

The catalog in effect for the term in which the student first completes coursework at Washington & Jefferson College becomes the student's College and major program catalog of entry. The catalog of entry defines the College and program requirements an entering student must complete in order to earn the bachelor of arts degree, and is in effect for the next five years from the point of entry into the College.

Changes in either major or non-major requirements that are made necessary by altered or discontinued courses or by requirements imposed by external accrediting or certification agencies will be resolved on an individual basis by the chair of the department in which the student majors. Whenever possible, new requirements are implemented with a beginning class.

Transfer students are governed by the same regulations.

STATEMENT OF RESPONSIBILITY

It is the responsibility of each student to know both the College-wide graduation requirements and those of the major field of study, and to meet all requirements satisfactorily for graduation. Students have the assistance of numerous College personnel who will help them understand these requirements. The academic advisor, the major department chair, the Office of Academic Affairs, and the registrar are the first resources each student should turn to when questions arise.

BREADTH AND DEPTH

Washington & Jefferson College has two sets of graduation requirements: College-wide requirements, which all students must complete, and program-level requirements, which include the requirements for completing a major. College-wide requirements are discussed in this section. Specific requirements for majors, minors, and other programs can be found in the "Areas of Study" section of this catalog.

A minimum of 34 courses, exclusive of physical education and wellness courses, is required for a bachelor of arts degree. Students must also have a minimum grade point average of C or better. Further, like most colleges and universities, W&J requires that students be "in residence" for a certain number of courses in order to graduate. This means that students earn the course credit via regular enrollment at Washington & Jefferson College. All new students, including transfer students, must complete a minimum of four terms of full-time study in order to be eligible for the degree. First-year students must complete at least two Intersession terms, and transfer students must complete at least one Intersession. All students must complete at least 17 of their courses at W&J.

The diploma is awarded only to graduates who have met all obligations to the College, both academic and financial.

COLLEGE-WIDE REQUIREMENTS

There are five components to the College-wide requirements, also referred to as "general education" requirements.

I. Freshman Forum

All new full-time, first-year students must complete the Freshman Forum as a common educational experience and introduction to the liberal arts and the College. The Freshman Forum is a graded course and a set of related cultural and intellectual events ("the lyceum") designed to introduce students to the full range of the educational opportunities ahead of them. Each year, faculty members from across the College focus on a particular topic of general interest and offer related

lectures and seminars. The lyceum, which may consist of lectures, concerts, plays, trips to museums or galleries, or similar activities, is arranged in connection with the theme of the course. Forum instructors serve as academic advisors to new freshmen. This requirement does not apply to students who transfer to the College.

II. Breadth of Study

Typically, courses taken to satisfy the breadth of study component of the general education requirements are broad introductions to a field of study, open to any student and with an emphasis appropriate for non-majors in the field. The courses will also provide opportunities for students to develop at least three of the following modes of thought:

- To observe clearly;
- To think critically;
- To make informed judgments;
- To reason abstractly;
- To solve problems;
- To think creatively.

The breadth of study requirement is completed through specially designated general education courses in each of four areas of study as described below. Each term the Registrar's Office makes available a session schedule of classes, which indicates the courses that have been specially designated for the purpose of satisfying the breadth of study requirement.

- *Arts*—Arts courses promote an understanding of artistic process and/or the discrete application of artistic processes in art, communication, music, and theatre. Students must complete one specially designated arts course.
- *Humanities*—Humanities courses promote an understanding of the meaning in human life through study of language, literature, philosophical and religious texts, and history. Students must complete three specially designated humanities courses from at least two different departments.

- *Social Sciences*—Social science courses promote an understanding of fundamental features of human behavior and social structures and their role in shaping communities. Students must complete at least two specially designated social science courses from different departments.
- *Natural Sciences and Mathematics*—Natural science and mathematics courses promote an understanding of the nature or methods of scientific inquiry and mathematical reasoning. Students must complete two courses carrying N designation and one course carrying a lab designation. Many courses carrying lab designation also will carry an N designation and can be counted for both. The two N courses must be from Z different disciplines. For the purposes of counting, SCI courses shall be considered discipline neutral and the requirement may be satisfied by pairing a SCI course with one from any NSM discipline or with another SCI course.

III. Cultural Diversity

The cultural diversity requirement is intended to introduce students to the cultural diversity of societies throughout the world, with the goal of understanding both the interconnectedness of those societies and the need to respond with intelligence and sensitivity to the peoples of varied social backgrounds and cultural frameworks. Each student must complete one course devoted primarily to the study of cultural diversity in American society or elsewhere, or to the study of a culture or cultures outside the United States and Western Europe. Such courses are specially designated on the session schedule of classes published by the registrar. This course may also be taken to satisfy the breadth of study or other graduation requirements.

IV. Academic Skills

All students must take steps to develop their academic skills, particularly in the areas of oral and written communication,

quantitative reasoning, foreign language, and information technology. To that end, skill development is integrated into some course offerings so as to offer students intensive instruction and practice in these areas. Courses taken to satisfy an arm of the academic skills requirement may also apply towards breadth of study or other graduation requirements. Courses that are specially designated for oral communication, writing, and quantitative skill development are published each term on the schedule of classes.

- *Writing*—All students will take a writing intensive course in the first year. Transfer students must show similar training from courses completed prior to matriculating at Washington & Jefferson College. In addition to the first-year intensive writing course, students must pass two specially designated writing courses, each in a different department
- *Oral Communication*—Students must pass one specially designated oral communication course.
- *Quantitative Reasoning*—Students must pass one specially designated quantitative reasoning course.
- *Foreign Language*—All students must complete either two terms of one foreign language at the first-year level (either 105 and 106 or 106 and 207) or one term at the second-year level (207). Students who place above the 207 level will be exempted from additional courses in language towards this requirement. Students are encouraged to fulfill this requirement during their first two years at W&J.
- *Information Technology*—In addition to the course-based skills described above, the faculty of the College are committed to appropriate integration of information technology across the curriculum (ITAC). The faculty monitor all courses offered at the College for appropriate and sufficient integration of various technology skills.

V. Physical Education and Wellness

All students must complete the equivalent

of one course in physical education and wellness, in addition to the 34 courses required for graduation. Students may satisfy this requirement by taking four (half-term) 1/4 courses or two (full-term) 1/2 courses, or any combination of 1/2 and 1/4 courses. Participation in a varsity sport, as this participation is defined by the Department of Athletics, will count as a 1/2 course. All physical education and wellness courses will be taken under the satisfactory/unsatisfactory grading policy described on page 171 of this catalog, unless the option of taking a course for a letter grade is specified in the course's description.

THE ACADEMIC MAJOR

In addition to the general education requirements described, all students must complete the requirements for an academic major. Specific requirements for majors offered at the College are detailed in the "areas of study" section of this catalog, beginning on page 26. Students may also design their own academic major, by pursuing a thematic major, described on page 166.

New full-time, first-year students enter the College as "open" majors and are not permitted to declare a major until the end of the first term of the freshman year. Students may make a non-binding declaration of major at the end of their first term, and are required to do so by the end of the sophomore year.

Most majors comprise eight to 10 courses; however, individual programs may stipulate additional courses within the subject area, related fields, or foreign language. All majors require a culminating project appropriate to the field, commonly called the "capstone experience."

The following policies apply towards completing any academic major:

- No course in which a student receives a grade below C- shall count toward the fulfillment of major requirements, nor shall any course which is completed under the College's satisfactory/unsatisfactory grading option, as noted on page 171.
- The overall grade point average in all courses required for the major must be a

SUMMARY OF DEGREE REQUIREMENTS

Each student must complete a minimum of 34 courses (exclusive of physical education and wellness) with a minimum overall grade point average of C or better, with a grade point average of C or better in major course requirements, and must complete satisfactorily:

The Freshman Forum	1 course
Breadth of Study	
Arts	1 course
Humanities	3 courses (at least two subjects)
Social Sciences	2 courses (different subjects)
Natural Science and Math	2 courses (different subjects, one with lab)
Cultural Diversity	1 course (may also count towards other requirements)
Academic Skill Development	3 courses (freshman composition plus two courses in different departments)
Writing	
Oral Communication	1 course
Quantitative Reasoning	1 course
Foreign Language	2 courses if study begins at first-year level; 1 course if study begins at second-year level
Physical Education and Wellness	Equivalent of 1 course (does not apply to 34-course requirement)
The Academic Major	Minimum of 8 to 10 courses, including capstone experience
Electives	8 to 10 courses
Total	34 courses plus one course equivalent in physical education/wellness

C or better.

- Courses counted towards the major may also count toward fulfillment of the College's general education requirements.
- Regulations governing the application of courses towards the major program can be found on page 21 in the "How Courses are Counted" section.
- Normally, courses applied towards the major must be completed at W&J. However, with the approval of the

department chair, up to three courses in the major may be earned off-campus. Such coursework transferred back to W&J is subject to all regulations governing external course study (see page 170).

- A transfer student must consult with the major department chair regarding completion of the major at W&J. Generally the limit of three external courses is upheld, although at the major department chair's discretion, more than

three may be applied towards a major for a transfer student. If less than three accepted for transfer are applied towards the major, this student may pursue external coursework under the provisions on the previous page.

ADDITIONAL COURSES OF STUDY

DOUBLE MAJOR

Because of the flexibility of the curriculum, and the number of electives available, students who desire to do so may use eight to 10 of their available elective courses towards fulfilling a second major, and thus graduate with two academic majors, pursuant to all policies governing the academic major. No student is required to complete a second major. A student pursuing two majors may not count more than two of the same courses toward the completion of each major.

ACADEMIC MINOR

Academic minors are courses of study that provide less depth than the major. A minor may provide focused study within a discipline or from across more than one discipline. No student is required to complete an academic minor although many choose to do so. Typically, minor courses of study require six courses as stipulated by each program offering this course of study. Minors are governed by the following policies:

- A program administering a course of study may not require completion of any minor program as part of the requirements for a major.
- No course in which the student earns a grade of less than C- shall count towards fulfillment of the minor requirements, and the student must maintain an overall grade point average of C or better in courses counted towards the minor.
- Courses counted towards the minor may also count toward fulfillment of the College's general education requirements.
- Regulations governing the application of courses towards the minor program can be found on the next page in the "How Courses are Counted" section.

EMPHASES

An emphasis is a course of study providing a particular focus or degree of specialization within the context of a particular major. Typically, a student completes an emphasis by using elective courses within the major to provide the degree of specialization. The set of courses required to complete the major and an optional emphasis may not exceed one half of those required for graduation.

CONCENTRATIONS

A concentration is a course of study providing a particular focus or degree of specialization that is offered only by interdepartmental/interdisciplinary programs or special programs at the College. The number of courses required for a concentration is at least four but no more than five, and all concentrations are available to all students as a course of study, regardless of major.

COMBINED DEGREE PROGRAMS

Combined degree programs allow a student to capitalize on the strengths of the liberal arts education offered by W&J while pursuing certain professional interests. Students in these programs complete their general education requirements and the bulk of an academic major while in residence at W&J, typically over a three-year period, after which the student commences study in an accredited graduate or professional program. The student is then eligible for a bachelor of arts degree from W&J, in addition to being eligible for a second degree from the other institution. Examples are the College's 3-2 Engineering Program and combined degree programs offered through the College's Health Professions Program.

A student who has attained senior status at the College and who has fulfilled the College-wide requirements, including at least six courses towards a major offered by the College with grade of C- or better and a C average in those major courses, and who then enters an accredited graduate or professional school prior to completing the senior year, may apply for a bachelor of arts degree from Washington & Jefferson College. The degree will be completed by transferring back to W&J an appropriate array of courses so that graduation requirements are met. The verification of the degree is made by the appropriate faculty review body, typically,

the chair of the student's major department. In some programs, more than six courses towards the major must be completed while the student is in residence at W&J. Interested students should consult with the director of the specific program for more information.

HOW COURSES ARE COUNTED

PARTIAL COURSES

For the purpose of meeting the minimum of 34 courses required for graduation, students may combine partial courses (other than physical education and wellness courses) in any way to make whole courses. For example, students may take one half course in mathematics and one half course in applied music to make one full course. These two educational experiences are then considered one ($1/2 + 1/2 = 1$) of the 34 total courses you are required to complete for graduation. Physical education and wellness courses do not apply towards the 34-course graduation requirement.

Application of courses towards degree requirements

- Any course used to satisfy a course of study offered by a departmental program may also be used to satisfy a course of study offered by an interdepartmental or interdisciplinary program.
- Any course outside a discipline that is required by a departmental program for a course of study may also be used to satisfy requirements for other courses of study, except for the following cases:
- Students may not major in more than one discipline administered by the same department, but they are permitted to major and minor in different disciplines administered by the same department. In such instances, no more than two courses taken to fulfill requirements for the major may be used to satisfy the requirements for the minor. Exception: Students are permitted to major in more than one modern language.
- A capstone experience in one major cannot count as a capstone experience in another major.
- Students may not complete a separate major in any of the disciplines that are

part of their interdepartmental or interdisciplinary major unless approved by the programs involved.

OPPORTUNITIES OUTSIDE THE REGULAR TERM

INTERSESSION

The Intercession term, a distinctive feature of the W&J academic calendar, offers sharply focused courses designed to be a change from the standard curriculum. During their four years at W&J, students are required to take two Intercession courses, which can take the form of an on-campus class, a college-sponsored course of study off-campus, or a for-credit internship. Students are limited to one regular course and one physical education course per Intercession. All travel expenses for Intercession courses are the responsibility of the student, as are any special costs for field trips. Students wishing to take an Intercession course from another institution and transfer credit to W&J must obtain prior approval for the transfer of credit. A description of the approval process is available in the Office of the Registrar.

Some examples of recently offered Intercession courses are:

ART 247	Printmaking
BIO 273	Emerging Diseases: Global and Local
BUS 395	Corporate Failures, Frauds, and Scandals
COM 141	Hitchcock
ELE 219	Zuni World (study in Southwest U.S.)
ENG 242	London Theater (study abroad)
ENG 262	Vampires and Other Bloodsuckers
ESP 265	Entrepreneurship and Sports Management
HIS 256	Chinese History Tour (study abroad)
HIS 227	Renaissance Women
ITL 233	Cyber-attacks: Viruses, Worms, and Trojan Horses
MTH 201	Origins of Mathematics
MUS 246	Music of Modern Brazil
PHL 202	Philosophy and Gender

- REL 247 Disputed Questions: A Critical Introduction to Christian Theology
- THR 275 Children's Theatre

THE INTEGRATED SEMESTER

Periodically, the faculty organizes an integrated term on a particular interdisciplinary theme. Offered in a fall or spring term, the integrated term consists of a set of regular departmental courses dealing with the common theme and an integrative seminar involving regular meetings and an interdisciplinary project. Recent offerings are the integrated semester on dreams and fantasies and the integrated semester on Asia.

In order to participate in the integrated semester and receive a transcript designation for it, a student must satisfactorily complete at least two courses in the program and write a paper connecting material from those courses. The paper must be completed to the satisfaction of two of the faculty members affiliated with the program at the time. Courses offered for the integrated semester are open to all students as are the public lectures and events associated with the program.

SUMMER SCHOOL

The summer session lies within the charge of the regular faculty and administrative officers, and the courses are an integral part of the regular curriculum. To provide the necessary educational opportunities, W&J offers two summer sessions. Both are day sessions. The first is typically in June; the second typically in July. The summer session has been designed to provide expanded educational opportunities for:

- W&J students seeking to satisfy academic deficiencies or to accelerate their four-year program;
- Students from other colleges who wish to take specific course offerings;
- Persons employed in the local area who are enrolled in college degree programs;
- Local school teachers who wish to take courses for permanent certification;
- Recent high school graduates who wish to begin college early.

Qualified high school students who have completed their junior year may be admitted to certain courses, depending on the prerequisites

for those courses. Students who have matriculated at another college must affirm that they are in good standing at that institution. Such students also are responsible for ensuring they meet the prerequisites for any W&J courses they wish to take. When a student attending the W&J summer session plans to transfer the credit elsewhere, it is the student's responsibility to make arrangements with the registrar.

Summer session information, including courses of instruction, tuition, and housing, is posted each spring on the W&J Web site (www.washjeff.edu/summer). Current W&J students may register for Summer School using WebAdvisor at the same time they register for fall courses. Non-W&J students should register on an online registration form available on the Summer School Web site. Questions about Summer School should be directed to the Office of Academic Affairs.

OTHER OPTIONS FOR COURSE CREDIT

TRANSFER OF EXTERNAL COURSE WORK

It is possible to earn course credit by transferring work completed at another college or university to Washington & Jefferson College. Policies governing such courses can be found on page 170 of this catalog. No more than 17 of the 34 courses required for the bachelor of arts degree may be transfer courses, and no more than three may be applied towards the major.

TUTORIALS

A tutorial course is intended to provide individual students the opportunity to pursue a specific course of academic work under the close direction of an instructor who has agreed to supervise the work. The typical tutorial course is one that is listed in this catalog, but which the student pursues outside of the traditional classroom setting. Such courses may be offered under their standard course nomenclature or under 291/292 (freshmen and sophomores) or 391/392 (juniors and seniors) numbers.

INTERNSHIPS

The faculty has established internships so that students might begin to apply their talents to the world outside the classroom and obtain a taste of professional life in the political,

environmental, social, educational, or technical spheres. The central component of the internship is an off-campus, participatory experience, under the guidance and supervision of a qualified practitioner in the field. The experience must involve academic content. Time spent in the field may be reduced by the amount of time necessary to complete academic requirements or materials for evaluation. The faculty advisor of the internship or the chair of the department offering the internship may require additional academic requirements for the student to complete, where it seems appropriate. Internships are offered primarily during Intersession, but can also be taken during the regular terms and in the summer. They are graded satisfactory/unsatisfactory.

A student may take no more than two internships for credit. Both may be taken in the same department. A student must have an overall grade point average of 2.50 or higher (4.00 scale) to take an internship, and a student on academic probation may not take an internship.

If a student wishes to pursue course credit for a summer internship, it is considered a summer course and is subject to the summer session course fee.

INDEPENDENT STUDY

Independent study projects allow a student to do individual work, under the guidance of a qualified director, on a topic of special interest to the student. The student is responsible for the overall scope and direction of the project, but receives course credit only with the approval of the independent study director.

During the January Intersession term, the independent study option is open to all students. During the fall or spring term, juniors and seniors are permitted and encouraged to pursue some course of independent study. Sophomores may petition the Academic Status Committee for permission to pursue independent studies.

Application forms are available from the Office of Academic Affairs. The project must be approved by the student's advisor, the academic department supervising the project, and the Office of Academic Affairs. The deadline for application is April 15 for fall internships and November 15 for spring.

INTERNATIONAL AND OFF-CAMPUS PROGRAMS

Students are encouraged to learn the languages, cultures, and customs of other nations and to deepen their understanding of world affairs. To introduce students to diverse cultures and a wider world, the College encourages its students to study abroad. The Office of International Programs maintains a list of more than 30 approved term and yearlong programs of academic study in more than 20 countries. The programs are regularly evaluated and monitored by faculty in order to ensure high academic quality and immersion in host cultures. Students attending these programs receive W&J credit.

The Office of International Programs conducts extensive advising activities, guiding students through the process of identifying programs that fit personal and academic goals, consulting with W&J faculty to obtain course approval, applying, and other aspects of off-campus study. Group and individual advising sessions take place every week. The office provides mandatory pre-departure orientation meetings for all students going off campus and continuous registration at W&J.

W&J maintains formal exchange agreements with universities in Australia, China, France, Germany, Ireland, Japan, Mexico, Russia, South Africa, Spain, and the United Kingdom.

Requirements—Good standing and a minimum grade point average of at least 2.50. Any student with less than this and who has good reason to believe that there are extenuating circumstances may appeal to the Academic Status Committee for an exception to this rule before leaving to study abroad.

Applications—Students who receive W&J academic credit for an off-campus program must submit an application through the off-campus study office. Applicants are required to consult with academic advisors, have courses approved by departments, and obtain recommendations from faculty.

Fees and Financial Aid—W&J endeavors to make off-campus study available to all students. Financial aid, as determined by the Office of Financial Aid, continues when students study abroad. W&J requires the payment of W&J's tuition and in some cases

room and board. W&J charges a nominal administrative fee of \$300 for participation in an off-campus program. For more detailed information as off-campus study pertains to financial aid, please refer to page 201 in the Financial Aid section. Students are responsible for airfare and any personal expenses.

Foreign Language—Students abroad are encouraged to study in the language of their program country, which typically requires four terms of college-level language study. W&J also has approved programs abroad where students may learn the host language while taking other courses in English.

Academic Credit—Academic credit is given for programs approved by W&J. Students must receive a C or better for credit to transfer. Grades earned on term and year programs do not count in the student's grade point average with the exception of the German program.

The German program offers three programs for students to study abroad at various levels. Courses are offered as a part of the standard program at W&J. All credits and grades transfer automatically.

RESERVE OFFICERS' TRAINING CORPS (ROTC)

Undergraduate students can pursue an active or reserve officer commission with the Army or Air Force while enrolled at Washington & Jefferson College. Students will enroll through the Army or Air Force ROTC programs at the University of Pittsburgh or elsewhere. For further information, students should contact the commanding officer of the program of interest at the sister school.

AREAS OF STUDY



MAJORS

All W&J students must complete a major to graduate.

Accounting
Art
Art Education
Biochemistry
Biological Physics
Biology
Business Administration
Chemistry
Child Development and Education (K-6)
Economics
English
Environmental Studies
French
German
History
Industrial Chemistry and Management
Information Technology Leadership
International Business
International Studies
Mathematics
Music
Philosophy
Physics
Political Science
Psychology
Sociology
Spanish
Theatre
Thematic Major
Teacher Certification (K-12) available for majors in: Art Education, Environmental Education, French, German, Spanish

MINORS

Accounting
Biology
Business Administration
Chemistry

Communication
East Asian Studies
Economics
Education (7-12)
Teacher Certification (7-12) available in the following areas: Biology, Chemistry, Citizenship Education, English, Mathematics, Physics, Social Science, and Social Studies

English
Entrepreneurial Studies
Environmental Studies
French
Gender and Women's Studies
German
History
Information Technology Leadership
Mathematics
Music
Neuroscience
Philosophy
Physics
Psychology
Religious Studies
Sociology
Spanish
Theatre

EMPHASES

An emphasis is a specialization offered through a particular major.

Data Discovery
Human Resource Management
Information Systems
New Media Technologies
Neuroscience

CONCENTRATIONS

A concentration is a specialization offered through an interdisciplinary or special program.

Entrepreneurial Studies
Film and Video Studies
Graphic Design
Professional Writing
Rhetoric

PRE-PROFESSIONAL AND SPECIAL PROGRAMS

Education (elementary, secondary, and
specialty certification)
Engineering
Health Professions
Mind, Brain, and Behavior
Pre-Law

ELECTIVES

Chinese
Earth and Space Science
Japanese
Physical Education
Russian
Science

FRESHMAN FORUM

ACCOUNTING

Professors: Kuhn, Robison
Associate Professor: Galley
Assistant Professor: Kinder

Accounting has been called “the language of business.” As with any language, to comprehend its meaning one must not only read it, write it, and speak it, but understand the context in which it is communicated as well. Students learn accounting in a liberal arts environment. Specifically, the accounting program develops students’ technical competencies while stressing critical thinking and analytical abilities as well as written and oral communication skills. The importance of ethical considerations and the significance of the interdisciplinary nature of societal problems are emphasized as we help students prepare for careers in public accounting, private industry, government, and related executive and managerial opportunities.

The requirements of W&J’s accounting major are designed to preserve the flexibility needed for students to avail themselves of the breadth of educational opportunities offered by the liberal arts. The requirements of the major are sufficient to provide a foundation for entry into the accounting profession.

MAJOR REQUIREMENTS: ACC 211, 212, 321, 331, 332, 341, 471, BUS 302, ECN 101, 102, BUS/MTH 131 or MTH 151, and MTH 225. Also one of the following courses: ACC 342, 351, 361, or 431.

The department requires that the following courses be completed at Washington & Jefferson College by all students majoring in accounting: ACC 211, 212, ECN 101, 102, BUS/MTH 131, and MTH 225. When these courses are required as prerequisites for other departmental courses a grade of C or better is required to satisfy the prerequisite. A student admitted to the College after having completed these courses at another college or university must petition the chair of the department for special consideration in order to waive this requirement and transfer any of the required courses to his or her major at W&J. While not required, the department encourages the students to complete an

internship in accounting.

MINOR REQUIREMENTS: ACC 211, 212, 331, 332, ECN 101, and one 300- or 400-level ACC course.

The department requires that ACC 211, 212, and ECN 101 be completed at Washington & Jefferson College by all students who minor in accounting. A student admitted to the College after having completed these courses at another college or university must petition the chair of the department for special consideration in order to waive this requirement and transfer any of these required courses to his or her minor at W&J. While not required, the department encourages the student to complete an internship in accounting.

C.P.A. EXAM AND LICENSURE

REQUIREMENTS: Most states now require a baccalaureate degree and 150 term hours of credit for licensure as a C.P.A. Additionally, within the 150 term-hour requirement, many states require a specific number of term hours in accounting and some require a specific number of term hours in business (as distinct from accounting).

Since the typical undergraduate degree requires the completion of 120 to 128 term hours, the 150 hour requirement demands effectively, in many cases, an additional academic year of coursework. However, upon meeting W&J’s graduation requirement of 34 courses and the physical education/wellness requirement, students are awarded 140 term hours of credit. Thus, W&J graduates need only 10 additional hours of credit to satisfy the requirement. These additional hours may be obtained through additional undergraduate courses at W&J or other institutions, or through courses taken as part of a graduate program. Subject to satisfying credit-hour requirements in accounting and business as mandated by some states, these additional hours do not necessarily need to be in accounting and business.

ACC 211

Principles of Accounting I

This course and ACC 212 serve as a comprehensive introduction to the theory and

processes used to analyze, measure, and report the activities of business entities. It includes the role of the accounting function, the accounting equation, financial statements, overall principles of net income measurement, and an overview of the accounting and reporting of operating and investing transactions of business entities.

ACC 212 **Principles of Accounting II**

This course is a continuation of ACC 211. It includes accounting and reporting of financing transactions, financial statement analysis, basic concepts of cost and cost-behavior, accounting for manufacturing operations, budgeting, and decision analysis.

Prerequisite: ACC 211

ACC 321 **Accounting Information Systems**

This course is an introduction to the design and operation of systems that are used to process business transactions and accumulate information for both preparing general purpose financial statements and for supporting the managerial planning and control process, all within the context of computerized data processing technology. It includes the study of the flow of activities and documents in each of the major transaction cycles of business entities, the actual use of integrated accounting/business process software appropriate to mid-size businesses, and an overview of information technology concepts.

Prerequisites: ACC 212 or concurrent registration in ACC 212 and permission of the instructor

ACC 331 **Intermediate Financial Accounting I**

This course and ACC 332 serve as a study of the general accepted accounting principles underlying the preparation of general purpose financial statements used primarily to communicate information to external decision makers. It includes the conceptual framework of financial accounting, the form and content of financial statements, and a study of the authoritative pronouncements of the Financial Accounting Standards Board (FASB) relative to accounting and reporting of the operating activities of business entities.

Prerequisites: ACC 212 or concurrent registration in ACC 212 and permission of the instructor

ACC 332 **Intermediate Financial Accounting II**

A continuation of ACC 331, this course is a study of the authoritative pronouncements of the Financial Accounting Standards Board (FASB) relative to accounting and reporting of the financing and investing activities of business entities.

Prerequisite: The completion of ACC 331 with a grade of C or better

ACC 341 **Taxation of Business Entities**

This course is an introduction to the study of income tax regulations and analysis of income tax considerations relative to the different types of tax payers with emphasis on business entities, including sole proprietorships, partnerships, corporations, and limited liability companies. A broad range of tax concepts and issues are introduced. This course includes a review of tax compliance, tax planning matters, and the role of taxation in the business decision-making process.

Prerequisites: ACC 212 or concurrent registration in ACC 212 and permission of the instructor

ACC 342 **Taxation of Individuals**

This course is a study of income tax regulations and an analysis of income tax considerations, both relative to individual taxpayers. It includes a review of tax compliance, tax planning matters, and the role of taxation in the financing and investing decisions of individuals. Basic tax research is introduced.

Prerequisites: ACC 212 or concurrent registration in ACC 212 and permission of the instructor

ACC 351 **Cost and Managerial Accounting**

A study of product costing concepts and systems as well as the accounting support for planning and control activities, this course includes a review of both traditional and emerging product costing systems, budgeting, standard costing, and decision analysis.

Prerequisites: ACC 212 or concurrent registration in ACC 212 and permission of the instructor

ACC 352**International Accounting**

Accounting is often referred to as the language of business. As a global transformation occurs, one of the dialects we must learn to “speak” is international. Our world has changed and is now a multinational economy. Volkswagens, Toyotas, and Mercedes Benz automobiles are found around the globe. Japanese TV sets are commonplace worldwide, and Boeing airplanes deliver passengers to every major airport in the world. Italian shoes, American Coca-Cola, and Japanese cameras can be bought in all but a few isolated countries. This is truly an age of global economic interdependence. The multinational nature of contemporary business is an established (and probably irreversible) fact that we must study, understand, and embrace as we move forward in the age of corporate internationalism.

ACC 361**Governmental and Nonprofit Accounting**

A study of accounting and reporting for governmental nonprofit entities as defined by the authoritative pronouncements of the Governmental Accounting Standards Board (GASB) and for private nonprofit entities as defined by the Financial Accounting Standards Board (FASB).

Prerequisites: ACC 212 or concurrent registration in ACC 212 and permission of the instructor

ACC 431**Advanced Financial Accounting**

This course is a study of the authoritative pronouncements of the Financial Accounting Standards Board (FASB) relative to parent/subsidiary relationships, consolidated financial statements, business combinations, foreign exchange transactions, and translation of foreign currency financial statements.

Prerequisites: ACC 332 or concurrent registration in ACC 332 and permission of the instructor

ACC 471**Auditing and Assurance Services**

A study of the theory and practice of auditing and other assurance services, this course includes a review of generally accepted auditing standards, auditing procedures, and professional ethics.

Other topics include internal control review, audit planning, examination of evidential matter, and reporting responsibilities. This is the capstone course for the major.

Prerequisites: ACC 332 or concurrent registration in ACC 332 and permission of the instructor

ACC 497**Advanced Topics in Accounting, Current Problems in Accounting, Accounting Theory**

The class schedules and students' transcripts will indicate specific course offerings and completions.

Prerequisites: BUS 315 and ECN 101 and 102

ACC 500, 501**Independent Study**

Prerequisites: ACC 332 or concurrent registration in ACC 332 and permission of the instructor

ARABIC

Rarely in history has a language emerged more forcefully in the world than has Arabic in the recent past. Nearly every aspect of contemporary life is touched by the millions of speakers of Arabic. From energy production and the realignment of international politics, to life-changing questions of religion and philosophy and to new uses for scarce natural resources, Arabic—and those who speak it—will remain at the center of inquiry for years to come.

PLACEMENT PROCEDURES: All students taking a language at W&J must take the student information questionnaire prior to enrollment in that language. Students with a background in this language must also complete the computerized adaptive placement exam (CAPE). Incoming freshmen will usually take the exam prior to registration during summer orientation, but the exam may be administered at any time. The results of the questionnaire and exam will usually determine the level at which a student will begin a course of study in the language. A student who falls at the high or low end of a scoring range may be placed higher or lower than the course indicated, depending on the number of years of language the student has had. Placement in these situations is done in consultation with a faculty member from the relevant program. Because of the varying requirements for completing a major or minor in language, it is to the student's advantage to begin at the highest level possible.

ARA 105, 106

Elementary Arabic I, II

An introduction to the basics of spoken and written Arabic with emphasis on performance in culturally appropriate ways. Students engage in conversations, exchange of information and opinions, and expressions of feelings and emotions. Additionally, students will become familiar with the foundations of the Arabic writing system.

Taught largely in Arabic.

Prerequisite: ARA 105 for ARA 106, or the permission of the instructor

ARA 207

Intermediate I

Intended for students who have completed the first year sequence or its equivalent in Arabic. Students will develop listening, speaking, and writing skills. Course will address cultural situations in contemporary societies in the Arabic speaking world.

Taught largely in Arabic.

Prerequisite: ARA 106, or the permission of the instructor

ART

Professor: Maloney

Associate Professor: Lambertson (chair)

Assistant Professor: Schmidt

The Department of Art is dedicated to teaching studio art, art education, and the history of art and to advising majors in an atmosphere that encourages cooperation and independence among faculty and students. The department offers majors in studio art and art education. In addition, students may design thematic majors in art history with faculty supervision.

MAJOR REQUIREMENTS: Both the studio art and art education majors require a total of 10 art courses. The required courses are listed below. Additional art courses must be elected from the department's other offerings.

- **STUDIO ART MAJOR**

REQUIREMENTS: ARH 101, 102, ART 108, 112, 361 or 362, 363, and any 300-level ARH course; one 300- or 400-level ART course except ART 400; and two 400-level ART courses except ART 400 and ART 425.

- **ART EDUCATION MAJOR**

REQUIREMENTS: ARH 101, 102, 355, ART 108, 112, 361, 363, and 400; one 300- or 400-level ART course; and one 400-level ART course except ART 425. In addition, students must complete admission procedures and required courses in education as outlined in this catalog.

GRAPHIC DESIGN CONCENTRATION:

The department collaborates with the ITL department on a graphic design concentration. Please refer to the Graphic Design catalog listing for further information on this area of study.

TEACHER CERTIFICATION: Students seeking teacher certification in art education K-12 must complete the admission procedures and required courses in education and complete

the required courses for the art education major.

CAPSTONE EXPERIENCE: In addition, as a capstone experience, departmental majors must present a Senior Art Show. During the junior year, the student's work will be screened by a committee comprised of the art faculty. A student whose work is not approved will be advised to take specific courses or to work independently to correct deficiencies. The student's work will then be reviewed and must receive committee approval before the student presents the Senior Art Show on campus.

STUDIO ART

ART 108

2-D and 3-D Design

This course is an introduction to the foundations of art. Topics of discussion will center on the principles and elements of design, both two- and three-dimensional, and color theory. Emphasis will be placed on creative problem solving using a variety of media.

ART 112

Beginning Drawing

This course acquaints the beginning student with the tools, the application, and the creative process of basic drawing media. Such areas as landscape, still-life, figure, and non-objective subjects will be considered so that the individual may find a personal statement through line.

ART 130

Photography

An in-depth study of the form and concept of the photographic media, this course places special emphasis on creative imaging through composition, lighting, and exposure with the 35mm camera. This course will provide students with hands-on training in black and white film processing and printmaking.

ART 240

Ceramic Sculpture

This course presents students with the basic

skills of hand-building, modeling, and working from a live model. Students explore a personal expression through observation, investigation, and the study of the human figure and portraiture. Materials used include stoneware, earthenware, slips, glazes, and stains.

ART 247

Special Topics in Studio Art

Study of a special topic in studio art varying by term.

ART 261

Beginning Ceramics

This course introduces non-majors to the basic skills and techniques of hand-building and wheel-throwing and encourages students to explore a personal artistic vision, primarily through functional and nonfunctional vessels. Students prepare clays, mix glazes, and assist in loading and firing kilns. Lectures, slides, and videos present such topics as natural clays, ancient pottery, and contemporary ceramics.

ART 262

Beginning Sculpture

This course introduces non-majors to basic skills and techniques in sculpture and encourages them to explore a personal artistic vision. Students manipulate plaster, wood, stone, and clay through the sculptural techniques of carving, modeling, and casting.

ART 263

Beginning Painting

This course introduces non-majors to the basic skills and techniques of painting in oil and acrylic and encourages students to explore a personal artistic vision. Students will investigate the elements and principles of design as well as color theory in a progressive series of assignments designed to foster creative thinking.

ART 312

Figure Drawing

This course acquaints the student with drawing the human figure from the skeleton, wooden figurines, and the model. Students explore a variety of methods, applications, and tools in the creative process. Emphasis is placed on individual progression and finding a personal statement.

Prerequisite: ART 112

ART 347

Special Topics in Studio Art

Study of a special topic in studio art varying by term.

Prerequisite: ART 108 or 112

ART 361

Ceramics Studio I

This course introduces students to the basic skills and techniques of hand-building and wheel-throwing. Building upon prior experience in the studio, students seek to develop a personal artistic vision through functional and nonfunctional vessels. Students prepare clays, mix glazes, and assist in loading and firing kilns. Lectures, slides, and videos present topics such as natural clays, ancient pottery, and contemporary ceramics.

Prerequisite: ART 108, 112, or 261

ART 362

Sculpture Studio I

This course introduces students to the basic language, elements, media, tools, and principles of sculpture and seeks to develop their personal artistic vision. Students manipulate plaster, wood, stone, and clay through the sculptural techniques of carving, modeling, and casting.

Prerequisite: ART 108, 112, or 262

ART 363

Painting Studio I

This course introduces students to the basic skills and techniques of painting in oil and acrylic and encourages them to develop a personal artistic vision in a series of works. Applying the elements and principles of design and color theory, students explore the psychological, emotional, and intellectual qualities of painting in a progressive series of assignments designed to foster creative thinking.

Prerequisite: ART 108 or 263

Recommended: ART 112

ART 400

Principles of Art Education

This course is designed to provide the student with a broad range of skills and knowledge in art education to become a qualified art teacher

at the elementary or secondary school levels. This would include methods and materials for teaching practicum and a wide variety of studio experiences for the student to develop confidence in his or her own media of creative expression.

Offered: Fall term

ART 405 Internship in Studio Art

This course is a supervised off-campus experience developed in consultation with the studio art faculty.

Prerequisites: Permission of the instructor and department chair

ART 425 Graphic Design Studio

This course focuses on producing portfolio-quality work based on creative, visual problem solving. Class assignments build upon the theory and technical skills presented in the previous four courses in the graphic design concentration. This course is intended to provide a capstone experience for the concentration in graphic design. This course does not satisfy requirements for either the art or art education major.

Prerequisites: ART 108, ART 112, ITL 271, and ITL 361

ART 461 Ceramics Studio II

This course presents students with advanced skills and techniques in ceramics and continues to develop their personal artistic vision. Considerable emphasis is placed on creating, glazing, and firing a body of work. Students also contribute to a supportive and collaborative studio environment.

Prerequisite: ART 361

ART 462 Sculpture Studio II

This course presents students with advanced skills and techniques in sculpture and continues to develop their personal artistic vision. Considerable emphasis is placed on creating a body of work centered on an idea or theme. Students experiment with a variety of media, engage in independent critical thinking, and contribute to a strong studio dialogue.

Prerequisite: ART 362

ART 463 Painting Studio II

This course presents students with advanced skills and techniques in painting and continues to develop their personal artistic vision. Considerable emphasis is placed on creating a body of work centered on an idea or theme. Students work in oil, acrylic, or experiment with watercolor and contribute to a supportive and collaborative studio environment.

Prerequisite: ART 363

ART 500, 501 Independent Study

ART HISTORY

ARH 101 World Art I

This course introduces the history of art from prehistory to the late middle ages and examines the world's artistic heritage in its religious, political, and social contexts.

ARH 102 World Art II

This course introduces the history of art from the fifteenth century to the present and examines the world's artistic heritage in its religious, political, and social contexts.

ARH 247 Special Topics in Art History

Study of a special topic in art history varying by term. Possible topics include artists, movements, themes, or periods in the history of art.

ARH 330 The Renaissance

An in-depth study of the form and content of European art from the early fifteenth century to the end of the sixteenth century. Original course material from the literature of art history will supplement the slide lectures.

Prerequisite: ARH 101 or 102, or permission of the instructor

ARH 340**Baroque Art**

This course explores the art of the seventeenth and early eighteenth century in Italy, Flanders, Germany, Spain, England, Holland, and France. The Counter-Reformation in Catholic countries, the celebration of riches in Holland, and the politics of absolutism will be treated as they influenced the making and experience of art.

Prerequisite: ARH 101 or 102, or permission of the instructor

ARH 347**Special Topics in Art History**

Study of a special topic in art history varying by term. Possible topics include artists, movements, themes, or periods in the history of art.

Prerequisite: ARH 101 or 102, or permission of the instructor

ARH 352**Nineteenth-Century Art**

This course examines the visual arts from 1750 to 1900, surveying neoclassicism, romanticism, realism, impressionism, and post-impressionism. Intellectual currents, political revolutions, and industrialization will be addressed as they are reflected in art and as they affected its creation.

Prerequisite: ARH 101 or 102, or permission of the instructor

ARH 355**Twentieth-Century Art**

This course treats the visual arts (painting, sculpture, architecture, and some film) from roughly 1880 to 2000, surveying fauvism, cubism, German expressionism, revolutionary art in Russia, Dadaism, surrealism, abstract expressionism, pop art, and postmodernism. This course seeks to combine the disciplines of intellectual, social, political, and cultural history with the study of art.

Prerequisite: ARH 101 or 102, or permission of the instructor

ARH 370**Women and Western Art**

This course examines the roles women have played in the visual arts in Western traditions from the ancient world to today, concentrating

on the modern period. Focus is on the work of women artists, the commissions of women patrons, the responses of audiences to these works, and the meanings generated by the female form. The course also surveys texts representative of critical trends in scholarship on women artists and gender.

Prerequisite: ARH 101 or 102, or permission of the instructor

ARH 400**Seminar in Art History**

A seminar for advanced and well-prepared students, this course concentrates on an individual artist, specific problem, limited time period, or theme and serves as a capstone experience for the art history major. Students produce a significant research paper and present this work to the seminar.

Prerequisite: Permission of the instructor

ARH 405**Internship in Art History**

This course is a supervised off-campus experience developed in consultation with the art history faculty.

Prerequisites: Permission of the instructor and department chair

ARH 500, 501**Independent Study**

BIOCHEMISTRY

Biochemistry Steering Committee:

Professor: Lee

Associate Professors: DeBerry, Harris (director)

Assistant Professors: Leonard, Matsuno

The biochemistry major is intended to prepare students for advanced study in biochemistry or entry-level positions in biochemical research. This rigorous interdisciplinary major, administered jointly by a steering committee with representation from the biology and chemistry departments, provides a broad background in biochemistry and the molecular processes of life.

MAJOR REQUIREMENTS: A total of 16 courses, including MTH 151, PHY 101 or 107, and 102 or 108; BIO 101, 102, 212, and 311; CHM 160, 170, 260, and 270; BCH 320 (or CHM 360), 333, and 401. In addition, elect any 2.5 courses from BIO 201, 202, 235, 314, CHM 350, 380, 420, 480, and BCH 500 or 501. BCH 401 serves as the capstone for the biochemistry major.

BCH 320

Biophysical Chemistry

This course applies principles of thermodynamics and chemical kinetics and dynamics to living systems and biopolymers. Topics include homogeneous and heterogeneous equilibria, chemical potential, measurement and theories of reaction rate in biochemical systems, diffusion, osmotic pressure, and sedimentation. The laboratory is designed to develop skills necessary for independent research involving projects of a biophysical nature.

Prerequisites: BIO 101 and 102; CHM 160, 170, 260, and 270; MTH 151; and PHY 107 and 108 or 101 and 102

BCH 333

Biochemistry

This course is an introduction to the fundamental principles of biochemistry with an emphasis on the structure and function of proteins, carbohydrates, lipids, and nucleic acids in living systems. Metabolic pathways and their regulation are studied in detail. Modern biochemical laboratory techniques are discussed in lecture and

employed in the laboratory component of the course.

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102; CHM 160, 170, 260, and 270 (or PHY 317); and MTH 111

BCH 401

Biochemistry Seminar (1/2 course)

This course is intended for junior and senior biochemistry majors, but is open to all students who meet the prerequisites. Under the guidance and with the approval of the faculty facilitator, students will present the results of classic and current research published in biochemistry professional journals. Discussion will follow each oral presentation, providing critical evaluation of the article and its implications. The specific theme of the seminar will vary from year to year.

Prerequisites: BIO 101 and 102; CHM 160, 170, 260, and 270; and two of the following: BIO 212, 311, BCH 320, or 333

BCH 500, 501

Independent Study

BIOLOGICAL PHYSICS

Professor: Sheers

Associate Professors: Cannon (director),
Pettersen

Assistant Professors: Bayline, Leonard

Biological physics is a discipline that focuses on the physics problems presented by biological systems. It uses physics to gain new insights into biological problems. This interdisciplinary major, administered by the physics department, is intended to prepare students for study in areas of the life sciences and health professions that are increasingly technical. Examples include cell biology, neuroscience, and medical research.

MAJOR REQUIREMENTS: A total of 16 courses. Required courses are MTH 151 and 152, BIO 101 and 102, CHM 160 and 170, BCH 333, and PHY 107, 108, 209, 234, 327, 390 (1/2 course), 441 (1/4 course), and 442 (1/4 course). Students completing the biological physics major must also elect one of PHY 317 or CHM 360; one of PHY 313, 322, 331, or 381; one of BIO 212, 311, 314, 201, NSC 300, or any biology course at the 200 level or above approved by the Biological Physics Major Advisory Committee.

CAPSTONE EXPERIENCE: The capstone experience for the biological physics major is the biological physics senior research project, which is completed through PHY 441 and 442.

BIOLOGY

Professors: Dryden, Lee (chair)
Associate Professors: Bayline, DeBerry, March
Assistant Professors: Contreras, Kilgore, Wenk
Program Coordinator: McGrain

The mission of the Department of Biology is to provide a challenging and exciting environment where students develop the skills and background necessary to be both well-informed, responsible citizens and highly competitive scholars in their chosen field. Students completing the major learn the most current research skills and methodologies through independent student-based research projects and internships. The department provides a wide variety of learning opportunities outside of the classroom in the form of outreach, student clubs, and field station projects. Biology faculty assume a leading role in programs that provide training in specific fields such as pre-health, neuroscience, biochemistry, education, and environmental studies. The faculty is also dedicated to the further development of departmental programs through grant writing and student recruitment. The department is committed to providing resources and facilities that permit students to use the best possible scientific instruments in an optimal environment.

Available to the Department of Biology for course instruction and student independent study projects is the Abernathy Field Station, located four miles southeast of the campus. The field station is a 54-acre natural area of sugar maple-mixed hardwood forest with a small field, two streams, and an arboretum containing more than 150 different tree species.

MAJOR REQUIREMENTS: The biology curriculum is designed to permit maximum flexibility for students to work closely with advisors to customize their selection of courses to emphasize areas such as biotechnology, environmental studies, or the neurosciences. The biology major may choose from two programs.

General Biology: BIO 200; at least one course from Group 1—BIO 201, 212, or 215; at least two courses from Group 2—BIO 202, 204, 205, 206, 209, 235, or 245; and at least two courses from Group 3—NSC 300, BIO 311, 314, 319,

320, 245, 412, 416, 435, or BCH 333 or BIO 500/501. There must be a total of seven courses beyond BIO 101 and 102.

Cell/Molecular Biology: (At least one course from BIO 201, 212 or 202), BIO 215 or 314, 311, and BCH 333; plus two from 201 or 212, 202, 235, 215 or 314, 412 or 435, 500 or 501 (but not both), or NSC 300 and one additional course at the 200 level or above. CHM 160, 170, 260, and 270 and PHY 101 and 102 or PHY 107 and 108.

NOTE: BIO 101 and 102 are required for both programs. BIO 101 and 102 are the only courses numbered below 200 that count toward the major.

CAPSTONE EXPERIENCE: All biology majors must complete a capstone experience during either the junior or senior year. Any one of the following may be used to satisfy the capstone requirement:

- Biology Seminar (BIO 301)*
- An approved biologically-related summer research internship**
- Approved summer on-campus research in the biological sciences**
- Experimental Biology (BIO 412)*
- Specified 300- and 400-level courses with optional capstone projects***: ecology (BIO 320)*; evolution (BIO 416)*; and neurobiology (BIO 435)*
- Independent Study (BIO 500 or 501)*
- An approved biology tutorial (BIO 391 or BIO 392)* during the junior or senior year
- An approved senior research project in environmental studies (EVS 430)*

All students are required to present their capstone work as a poster, oral presentation, or in some other approved format on campus or at a regional or national meeting.

* Students must earn a C- or better for a course to count as fulfilling the capstone experience.

** Students who do summer research must submit a detailed journal or research notebook documenting their work and they must make a formal presentation of the project on campus (as an oral presentation, poster presentation, or other approved form).

*** Capstone projects in courses must include the following: library research involving reading of original research publications; a written abstract of the project; and a formal presentation of the project (as an oral presentation, poster presentation, or other approved form).

See the Biology Handbook for additional recommendations in regard to these programs. Pre-professional students should consult the requirements for recommendation by the Committee on Health Professions to assure their completion of entrance requirements.

MINOR REQUIREMENTS: BIO 101 and 102 and four additional courses numbered 200 or above, including a course in botany and one course from each of the three groups indicated under general biology.

TEACHER CERTIFICATION: Students seeking teacher certification in biology 7–12 must complete the admission procedures and required courses in education and complete the required courses for the general biology major including BIO 201, 212, 235, 320, and one from 202 or 206. In addition, the student must complete at least one course in the following areas: general chemistry, physics, mathematics, and earth and space science (courses that would fulfill these requirements include CHM 160, 170, and 260; PHY 101 or 107; MTH 225 or MTH 245; and any ESS course). Also, the student must serve at least one term as a lab assistant prior to student teaching.

NOTE: BIO 100 and 114 are designed for non-majors to permit those students to investigate particular areas of biology in a more relaxed atmosphere. Students planning to major in biology who enter in midyear may begin with BIO 102.

BIO 100 **Introduction to Biology**

An introductory laboratory biology course for

non-science majors. In any one session, the content will focus on a particular topic that illustrates the basic concepts of biology. Examples of past topics include environmental issues, fitness and exercise, disease and malignancy, and evolutionary biology. Where possible, items from the current popular press will be used as a significant resource.

Offered: Fall and/or Spring term(s)

Three hours lecture, three hours lab

BIO 101 **General Biology**

This course introduces biology including principles of biochemistry, cell biology, and genetics. Topics include structure and function of macromolecules, cell structure, membrane transport, cellular respiration, photosynthesis, mitosis and meiosis, Mendelian and molecular genetics, and recombinant DNA technology. Biological evolution is introduced, including prebiotic chemical evolution, a survey of prokaryotes, and the evolution of eukaryotes.

Offered: Fall term

Three hours lecture-recitation, three hours lab

BIO 102 **General Biology**

Based on the theme of organic evolution, this is an introductory course of integrated lectures and laboratory experiences in animal biology covering anatomy, physiology, behavior, evolution, and ecology. Animal diversity is surveyed from sponges through the culminations of the protostome and deuterostome lines. Laboratories incorporate the scientific method of gathering and evaluating data, as well as field experience.

Offered: Spring term

Three hours lecture-recitation, three hours lab

BIO 114 **Topics in Biology** (for non-majors)

Course offerings in various areas of current biological interest (e.g., genetics, evolution and society, horticulture) designed to amplify the life science background of the educated individual. Consult the preregistration bulletin for the topic being offered.

Offered: Varies

Three hours lecture

BIO 200**General Botany**

This course addresses the unique characteristic of photoautotrophic organisms: the capacity to capture solar radiation for the conversion of inorganic carbon to organic carbon. While addressing all photosynthetic organisms, the lecture and lab will focus on the anatomical and physiological strategies that plants have evolved in the competition for resources and how this competition in a changing environment has resulted in tremendous diversity. Students will use examples of plants from the region and throughout the world to illustrate diversity in form and function, as well as the relationships between and among plant species and their environment. Human reliance on plants for survival will be a theme in the course.

Offered: Spring term

Prerequisites: BIO 101 and 102, or permission of the instructor

BIO 201**Genetics**

An introduction to Mendelian genetics, molecular genetics, and population genetics, discussions during this course will include problem solving, fundamentals of inheritance, linkage, chromosomal aberrations, molecular control at the gene level, gene expression, mutation, gene manipulations, polygenic inheritance, and analysis of population variation. Laboratory investigations will provide students with the opportunity to use various biological materials and organisms to collect and mathematically analyze genetic data to promote insight as to the way genetics and geneticists work.

Offered: Spring term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 202**Developmental Biology**

This course will provide an introduction to the major events and mechanisms of organismal development. Topics will include classical embryology such as cleavage, gastrulation, and organogenesis. Additionally, the evolutionary conservation of molecular mechanisms regulating developmental events will be

emphasized. The laboratory will include anatomical, physiological, and genetic approaches to the study of developmental biology.

Offered: Spring term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 205**Invertebrate Zoology**

This course provides students with an up-close introduction to the wonderful world of invertebrates. Students will learn to collect and identify a diverse array of invertebrate taxa with an emphasis on insects. Through lecture and discussion students will survey invertebrate phyla while focusing on their natural history and the ecosystem services that they provide.

Offered: Fall term (not every year)

Three hours lecture, three hours lab

Prerequisite: BIO 102

BIO 206**Animal Behavior**

This course will examine the evolutionary processes that shape the behavior of animals. Course topics include the role of evolution in shaping behaviors and a survey of methods for observing, quantifying, and evaluating behavior. We will also examine the effects of behavior on the survival and persistence of individuals and populations.

Offered: Fall term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 209**Vertebrate Anatomy**

Lectures on vertebrate morphology are structured around the themes of evolution and ecology. The various vertebrate groups are discussed, from fish to mammals. In laboratory, we will perform thorough dissections of the shark and the cat.

Offered: Spring term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

NSC 210**Introduction to Neuroscience**

This course is intended to expose students to the world of the neuroscientist. A major goal is to introduce students to the subject matter of neuroscience and to provide insight into its interdisciplinary nature, bridging psychology and biology, as well as topics in physics and chemistry. To this end, we will examine various topics from the perspectives of these different disciplines. Examples of topics may include: cognition, motor systems, emotion, sensory systems, development, consciousness, evolution, and pharmacology. Each module will include lecture and background information, a discussion on a specific research question within the topic, and some type of demonstration or applied experience.

Offered: Intersession

Prerequisite: One of BIO 101, 102, CHM 160, PSY 101, PHY 101, or 107

BIO 212**Cell Biology**

This course examines the internal functioning of cells and the interactions involved in multicellular systems. Topics include structure and function of biological macromolecules, membrane transport, organelle function, signal transduction systems, extracellular matrix interactions, cytoskeletal elements, cell motility, cell cycle control, protein sorting and distribution, apoptosis, cancer, and stem cells. Laboratory activities involve the culture of different types of eukaryotic cells and utilize molecular techniques in the study of cell structure and function. The second half of the laboratory is devoted to group projects.

Offered: Fall term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 215**Microbiology**

This course is designed to expose students to many different aspects of microbiology to allow them to glimpse the excitement of a dynamic scientific field. Emphasis in this course is on bacteria, viruses, immune response, microbial genomes, and applied microbiology. The labora-

tory is designed to prepare students to function in a clinical setting, while dealing mostly with non-pathogenic bacteria.

Offered: Spring term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 235**Animal Physiology**

This course is a study of the major physiological phenomena as illustrated by members of the animal kingdom. Although mammalian physiology will be an important component of the course, the physiology of other vertebrates and invertebrates will also be considered to produce a broad comparative investigation. Lecture and laboratory will emphasize heart and muscle physiology, control and distribution of body fluids, hormonal regulation, sensory biology, and nervous function.

Offered: Fall term

Three hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 245**Applied Statistics for the Life Sciences**

This course is an introduction to statistics and experimental design as used in the life sciences. Emphasis will be placed on the practical use of statistical tests. The course will examine the more commonly used parametric and non-parametric tests. By the end of this course, students will be able to determine when, why, where, and how to use statistics. Students will become well versed with using computers to examine data, run and interpret statistical tests, and formally present final results. This course assumes no prior statistical background and will be well suited for students who intend to pursue graduate study in the life sciences. This is the same course as MTH 245.

Course is not available to students who have taken MTH 225.

Prerequisite: BIO 101 or 102, or permission of the instructor

NSC 300**Experimental Neuroscience**

This course will combine lectures, laboratory exercises, discussions, and independent projects

to allow students to explore topics across the breadth of the field of neuroscience. These topics will include neuroanatomy, neurophysiology, synaptic transmission, anatomy and physiology of sensory and motor systems, behavioral and cognitive neuroscience, and neural development. In the laboratory, students will learn a wide variety of experimental techniques focused on anatomical techniques, physiological techniques, behavioral techniques, and computational techniques. Through these exercises, the students will learn to design, implement, and analyze experiments. Scientific writing will be emphasized. Finally, students will learn to critically read and evaluate research as presented in the primary literature through class presentations and discussions.

Offered: Fall term

Prerequisite: BIO 102 or NSC 210

BIO 301

Biology Seminar (1/2 course)

Under the guidance and with the approval of the biology faculty, students will select and present the results of current research published in professional journals. Discussion follows each oral presentation, providing a critical evaluation of the article and its implications. Each seminar series has a theme that varies from year to year.

Offered: Fall term

One two-hour meeting per week

Prerequisites: BIO 101 and 102, junior status, and permission of the department

BIO 311

Molecular Biology

This course is intended to introduce students to the concepts of molecular biology and to some of the important insights that have come from molecular approaches. Lectures will focus on how genetic information is organized, expressed, maintained, replicated, and on methods in molecular biology and genomics. Laboratories will include experiments intended to introduce students to the techniques used by molecular biologists including analysis of DNA structure, cloning, identification, PCR, and an introduction to bioinformatics.

Offered: Fall term

Two hours lecture, three hours lab

Prerequisites: BIO 101 and 102, and CHM 160 and 170, or permission of the instructor

BIO 314

Immunology

Immunology is the study of the immune system—both its helpful and harmful faces. This system is made up of a multitude of factors working together to protect us from the daily onslaught of would-be attackers, but at the same time it can turn on oneself, as seen in allergies or autoimmune disease. Today, immunology is bridging many areas of life. Immunological principles are being applied to clinical, industrial, and research realms. This course allows the student to glimpse some of the excitement present in this dynamic field of biology.

Offered: Fall term

Two hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 319

Field Biology

Field observation and identification of various plant and animal groups are undertaken to introduce the student to life under natural conditions. Lectures stress taxonomic considerations; laboratories emphasize field identification and quantification of populations in their natural habitats.

Offered: Fall term

Two hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 320

Ecology

This course is a study of the interrelations between organisms and the integration of organisms with their natural environments. Aspects of energy flow, nutrient cycling, population growth and regulation, and community organization and dynamics are considered in the context of the ecosystem. Laboratories include field work and emphasize techniques for collecting data and testing hypotheses.

Offered: Spring term (not every year)

Three hours lecture, three hours lab

Prerequisite: BIO 102, EVS 101, or permission of the instructor

BCH 333**Biochemistry**

This course is an introduction to fundamental principles of biochemistry with emphasis on the structure and function of proteins, carbohydrates, lipids, and nucleic acids in living systems. Metabolic pathways and their regulation are studied in detail. Modern biochemical laboratory techniques are discussed in lecture and employed in the laboratory component of the course.

Offered: Spring term

Two hours lecture, three hours lab

Prerequisites: CHM 160 and 170; 260 and 270 (or PHY 317); BIO 101 and 102; and MTH 111

BIO 412**Experimental Biology**

The course is designed to acquaint students with current research topics in experimental biology. In any one session, the content will be restricted to one or two particular fields of biology, with possible variation in the subject matter from year to year.

Offered: Spring and/or Fall term(s)

Two three-hour lecture/lab sessions

Prerequisites: BIO 101 and 102

BIO 416**Evolution**

This course is an introduction to evolutionary biology. It will cover topics from microevolutionary history and the geologic record. Readings from the primary literature will be used to enrich the text and to emphasize the experimental approaches used in evolution.

Offered: Spring term

Two hours lecture, three hours lab

Prerequisites: BIO 101 and 102

BIO 435**Neurobiology**

This course will combine lectures, laboratory exercises, discussions, and independent projects to allow students to explore topics in cellular and molecular neurobiology. Lectures and discussions will cover topics including membrane biophysics, ion channel structure and function, synaptic physiology, neuromodulation, sensory

transduction, and neural development. The laboratory will use invertebrate preparations including the crayfish and the land snail to investigate advanced neurophysiological concepts and techniques. Through these exercises, students will learn to design, implement, and analyze experiments. Scientific writing in the form of both independent and group lab reports will be emphasized. Finally, students will learn to critically read and evaluate research as presented in the primary literature through class presentations and discussions.

Two hours lecture, three hours lab

Prerequisites: BIO 101, 102, and 235

BIO 500, 501**Independent Study**

An outline of the study, acceptable to the project advisor, must be distributed to all biology faculty and others concerned with the project during the academic session one year prior to the session in which the study is to be completed. Students meeting this requirement may register for the course for the academic session in which the study is completed. For further details, obtain general requirements for "Independent Study in Biology" from a biology faculty member.

Offered: Spring and Fall terms

Prerequisites: BIO 101 and 102

BUSINESS ADMINISTRATION

Professor: Gregor (chair), West
Associate Professors: Gidas, Liberatore
Assistant Professors: Kinder, Litchfield

Business administration provides students with a base of knowledge in the core business disciplines of economics, accounting, business law, quantitative analysis, and management—disciplines essential to a career in management. Students are exposed to current business issues and practices through classroom visits by active professionals and through opportunities for field trips, internships, and independent studies with organizations.

MAJOR REQUIREMENTS: ECN 101, 102, MTH 225, ACC 211, 212, BUS/MTH 131, 301, 302, 307, and 315. In addition, elect two courses from the business administration courses at the 300 level or higher that are not specifically required for the major. At least one of these electives must satisfy the capstone requirement. BUS 401, 405, and 406 meet the capstone requirement for the business administration major.

The department requires that all business administration majors complete the following courses at Washington & Jefferson College: ACC 211, 212, ECN 101, 102, BUS/MTH 131, and MTH 225. When these courses are required as prerequisites for other departmental courses a grade of C or better is required to satisfy the prerequisite. A student admitted to the College after having completed these courses at another college or university must petition the chair of the department for special consideration in order to waive this requirement and transfer any of the required courses to his or her major at W&J.

MINOR REQUIREMENTS: ECN 101, ACC 211, BUS 300 or 302, and BUS 301 and 307. Elect one additional course at the 300 or 400 level.

The department requires that ACC 211 and ECN 101 be completed at W&J by all students who minor in business administration. A student admitted to the College after having completed

these courses at another college or university must petition the chair of the department for special consideration in order to waive this requirement and transfer either of these required classes to his or her minor at W&J.

BUS 100 **Contemporary American Business**

This course will provide students with an overview of the structure of contemporary American businesses. The major forms and functional areas of business will be examined as well as the role of business in the modern political, social, and economic environment. The development of business and management from colonial times to the present also will be reviewed. This course is not open to students who have completed BUS courses at the 300 level or above.

BUS 131 **Calculus for the Business Sciences**

This course covers functions, limits, continuity, and the processes of differentiation and integration with an emphasis on practical applications. Additional topics include the calculus of logarithmic and exponential functions and an introduction to multivariable calculus. Students who have successfully completed MTH 151 or its equivalent will not be given credit for this course. This course is not available to freshmen with AP calculus credit. This course does not count towards a major or minor in mathematics. This is the same course as MTH 131.

Offered: Fall and Spring terms

Prerequisite: Freshmen must have a placement score of at least 15. No prerequisite for non-freshmen.

BUS 150 **Introduction to International Commerce and Culture**

This course will examine the environment and management of international business: What is unique about international business? What drives it? How is it done? This course also will cover the effects of environmental influences upon the managerial functions such as marketing, finance, personnel, and accounting. This

course is not open to students who have completed BUS courses at the 300 level or above.

BUS 300

Fundamentals of Finance

A non-calculus based examination of corporate funding sources, investment criteria, and the role of financial planning in the overall context of corporate activity. This course does not count towards accounting or business administration majors. This course is specifically designed for international business majors and business minors and is not open to business majors. Students who have successfully completed BUS 302 may not enroll in BUS 300.

Prerequisites: ECN 101, 102, and ACC 211

BUS 301

Organizational Behavior and Management Principles

A course designed to introduce the student to the origins of management and the contributory bodies of knowledge that have been emphasized. The various functions and areas of management are stressed with special emphasis being placed on decision making.

Prerequisite: ECN 101

BUS 302

Financial Management

This course is an examination of internal and external sources of funds, development of investment criteria, and the role of financial planning in the general context of corporate activity.

Prerequisites: ACC 212, ECN 101, BUS/MTH 131, and MTH 225

BUS 307

Marketing

A study of motivation and behavior of the individual consumer, the industrial purchaser, the government, and institutional buyer, this course studies pricing, product planning and promotion, market research, and analysis.

Prerequisite: ECN 101

BUS 315

Principles of Management Science

As an introduction to management science, this is a course that will focus on tools and techniques used to analyze and solve management decision problems. Application and interpretation of methodology in case studies of transportation, assignment, project planning, and inventory problems. Computers used in analysis of these problems and in simulating and forecasting.

Prerequisites: BUS/MTH 131, MTH 225, and ECN 101

BUS 319

Business Law

A study of the nature, formation, and application of our legal system as a means to social, political, and economic change, this course emphasizes legislation and judicial decisions that have led to a regulated economy and which, at the same time, provide an overview of the major areas of basic substantive law.

Prerequisite: ECN 101

BUS 320

Business Law II

A study of advanced legal subjects, primarily in the area of administrative and constitutional law, as pertain to the business environment and including the legal aspects of the various forms of business organizations and utilizing examination of statutes, court cases, and ethical considerations in application of the law.

Prerequisites: ECN 101, BUS 319

BUS 350

Human Resource Management

This course includes the study of personnel management and industrial relations, unions and labor legislation, collective bargaining, recruitment, interviewing techniques, testing, training, employee benefits, and other employee relations problems and ideas.

Prerequisite: ECN 101

BUS 395

Corporate Failures and Scandals

This course is study of management and executive failures, frauds, and scandals throughout

history with an emphasis on current activities in the business world. Through case analysis and research, students will develop a framework for analyzing failures and identifying their probable causes and explore the resulting legal and regulatory issues. Classroom discussion and presentation are a significant component of the course.

Prerequisites: ACC 212, BUS 301, BUS 302, and BUS 307

BUS 401 Small Business Analysis

This course is a capstone experience for upper-division business students who act as management consultants to the owners/managers of small businesses. As a member of a team of consultants, students have the opportunity to integrate management theory and practice, thought and action. They use their analytical, problem-solving, and communications skills to suggest courses of action to improve the operations of their client businesses. In accomplishing this task, students apply their knowledge of the separate business disciplines of management, finance and accounting, marketing, and human resources to the solution of actual management problems.

Prerequisites: ECN 101 and 102; ACC 212, BUS 301, 302, 307, and 315; and permission of the instructor

BUS 405 Business and Society

This course develops concepts pertaining to the establishment of corporate policy and management strategy as they relate to social problems and environmental factors affecting business. Key concepts include the issue of corporate social responsibility and human values and their effect on management decisions, business and government relationships, business and technology, and the physical environment. Applications of these concepts will be illustrated with contemporary social problems and case studies. This course meets the capstone requirement for the business administration major.

Prerequisites: ECN 101 and 102; ACC 212; BUS 301, 302, 307, and 315

BUS 406 Strategic Management

This course is a capstone of previous

departmental and other business-related courses and is designed to integrate the several skills previously learned into a concept of general management. Emphasis will be on policy and strategy issues. In addition, by means of extensive reading assignments and case study analysis, it seeks to broaden the students' knowledge and awareness of the emerging issues and concerns that affect our system of capitalist enterprise.

Prerequisites: ECN 101 and 102; ACC 212; BUS 301, 302, 307, and 315

BUS 451 International Management

This seminar covers the substantive differences between domestic and international dimensions of management. Topics covered include internationalization of the firm, industry globalization, international strategy framework, strategy implementation requirements, management of relationships with nation-states, cross-cultural management techniques, international human resources management, and labor relations as well as the conducting of international business research.

Prerequisites: BUS 300 (or 302), BUS 301, and ECN 101 and 102

BUS 453 Global Supply Chain Management

This course is designed to help the student understand the relationship between supply chain management and strategic management of the firm. Students will learn how to analyze the flow of information and materials from suppliers to customers and back, in a technologically efficient and effective process. Both the theory and practice of modern supply chain management will be reviewed through readings and case studies.

BUS 457 International Marketing

This seminar covers the substantive differences between domestic and international marketing concepts and strategies with particular emphasis on organizational philosophies, international segmentation, and the influence of culture on the development of the marketing plan. Critical issues dealing with standardization versus adaptation strategies, counterfeiting and the

protection of industrial property, distribution alliances, and export marketing are discussed, as is the conducting of international market research.

Prerequisites: BUS 307 and ECN 101 and 102

BUS 497

Advanced Topics in Business Administration, Current Problems in Business Administration, or Small Business Problems and Strategy

The class schedules and students' transcripts will indicate specific course offerings and completions.

Prerequisites: Will vary according to topic

BUS 500, 501

Independent Study

Prerequisites: Will vary according to topic

CHEMISTRY

Professor: Brletic

Associate Professors: Harris, Iuliucci,

Malinak (chair)

Assistant Professors: Leonard, Logan, Matsuno

The goals of the Department of Chemistry are to instill in all students an appreciation and understanding of chemistry and the methods of scientific inquiry and to develop the appropriate skills, knowledge, and personal qualities that prepare citizens to understand chemically oriented issues and that prepare students for careers in chemistry and its allied fields.

MAJOR REQUIREMENTS: A minimum of nine CHM courses, including 160, 170, 260, 270, 300 (or BCH 333), 360, 365, 370, and 380 or 480 plus electives numbering above 300, PHY 101 or 107, PHY 102 or 108, and MTH 151 and MTH 152.

Students may elect a chemistry major approved by the American Chemical Society by completing CHM 160, 170, 260, 270, 300 (or BCH 333), 360, 365, 370, 380, 460, 470, 480, 500, PHY 101 or 107, PHY 102 or 108, MTH 151, 152, and one from MTH 208, 217, or 308.

The chemistry department also contributes to the biochemistry major. Please refer to the catalog listing for further information on this course of study.

MINOR REQUIREMENTS: CHM 160, 260, 270, the equivalent of two CHM courses at the 300 level or higher, and the equivalent of one additional CHM course numbering 170 or above. Either CHM 300 or BCH 333, but not both, can be used to satisfy the minor requirements.

TEACHER CERTIFICATION: Students seeking teacher certification in chemistry 7-12 must complete the admission procedures and required courses in education and complete the required courses for the chemistry major.

CAPSTONE EXPERIENCE:

The capstone experience for the chemistry

major will consist of two parts. One will be the successful completion of CHM 365: Chemistry Seminar with a grade of C- or better. In addition, all chemistry majors will take a standardized, comprehensive exam during their senior year. The exam will give students the opportunity to apply knowledge from their accumulated coursework and will allow the department to assess its instructional efforts.

**CHM 101
Chemistry of the Environment**

This course teaches the fundamental concepts of chemistry as they apply to the world around us. The impact of chemistry in the context of social, political, and economic issues is emphasized. Through the study of environmental topics such as air quality, water quality, and alternative energy sources, students develop analytical skills and the ability to assess risks and benefits. They also discover the theoretical and practical significance of chemistry, and directly experience chemical phenomena through laboratory experimentation. The course is designed for non-science majors.

Three hours lecture, three hours lab

**CHM 102
Chemistry of Brewing**

This course introduces the fundamental concepts of chemistry and biochemistry as they apply to brewing, a process that dates back to the ancient Sumerians. Topics will include the history of brewing, brewing ingredients, the brewing process, beer styles, and evaluating beers. Students will apply their knowledge through experimentation involving malting, mashing, fermentation, and quality control. The class will also focus on a key chemical component, ethanol—what it is, sources and uses, fate in the body, and social implications of abuse. This course will satisfy the laboratory science requirement.

Three hours lecture, three hours lab

**CHM 147
Topics in Chemistry**

(1/2 to one course as determined by instructor)

The topics will vary from offering to offering as

determined by faculty interest. Topics may include the chemistry of beer and brewing, nutritional chemistry or food chemistry. The course is designed to provide students with the fundamental chemical principles as applied to everyday life.

Prerequisites: Determined by instructor

CHM 160

Organic Chemistry: Structure and Fundamentals

This course introduces general chemistry concepts and is the first course in a systematic study of the standard nomenclature, reactions, preparations, and characteristic properties of the principle classes of carbon compounds. Emphasis will be placed on developing an understanding of stoichiometry; the electronic structure of atoms and molecules; conformation, configuration, and functional groups as related to a deeper appreciation of molecular structure; and the use of reaction mechanism to predict products and design syntheses. Examples from biochemistry will be included throughout the course.

Laboratory work is designed to reinforce concepts of the course. Laboratory experiments will introduce students to standard techniques (extraction, recrystallization, distillation, gas chromatography, stoichiometric calculation, and reporting of yields) as well as molecular modeling computer software. Organic compounds will be synthesized and characterized.

Three hours lecture, three hours lab

CHM 170

Organic Chemistry: Reactions and Synthesis

This course will build upon the concepts introduced in CHM 160. A number of standard organic compounds, reactions, and mechanisms will be addressed including aromatic systems, substitution and elimination reactions, and carbonyl chemistry. Laboratory work, designed to reinforce and complement concepts from lecture, will include a number of syntheses followed by product characterization by spectroscopy and/or chromatography.

Three hours lecture, three hours lab

Prerequisite: CHM 160 (with a grade of C- or better)

CHM 260

Introduction to Inorganic Chemistry

This course will explore many of the fundamental models and theories that chemists employ in their attempts to understand the physical world, with an emphasis on inorganic systems. Topics will include introductory quantum mechanics; the electronic and nuclear structures of the atom, including nuclear chemistry; bonding theory of covalent molecules and inorganic complexes; electronic and magnetic properties of inorganic complexes; models describing the solid, liquid and gas states; kinetics; equilibria involving gases and inorganic complexes; thermodynamics; and electro-chemistry. The laboratory work is designed to reinforce concepts from the course and to introduce several laboratory techniques.

Three hours lecture, three hours lab

Prerequisites: CHM 160 and MTH 111 (with a grade of C- or better)

CHM 270

Analytical Chemistry

This course in chemical analysis focuses on the fundamental principles of quantitative analysis and chemical equilibrium. Topics include solution equilibria (acid-base, precipitation, complexation, and oxidation-reduction), acid-base theory, statistical treatment of data, error analysis, sampling and design of experiments, separations, and spectroscopic methods. The laboratory involves gravimetric, titrimetric, and colorimetric analyses along with selected separation techniques and spectroscopic methods as applied to problems in biochemistry, environmental science, and forensic chemistry.

Three hours lecture, three hours lab

Prerequisites: CHM 160, 260, and MTH 111 (with a grade of C- or better in each)

CHM 300

Biological Chemistry

(3/4 course)

This lecture-only course is designed to introduce the major concepts of biological chemistry. A treatment of the structure of major biomolecules and the architecture of biological cells will lay a foundation for discussion of various aspects of metabolism including cellular respiration, biosynthesis, and regulation of metabolic cycles. Aspects of biological equilibria, thermodynamics,

and enzyme mechanisms also will be considered.

Three hours lecture

Prerequisites: CHM 160, 170, 260, 270, and MTH 111

CHM 320

Intermediate Organic Chemistry

(3/4 course)

This course will bridge the gap between the Introductory and Advanced Organic Chemistry courses through a comparison of classical synthetic methods to approaches employed in the modern literature. Additional reaction paradigms, such as radical and organometallic, will be introduced. Organic structure determination using advanced spectroscopic methods will also be discussed.

Three hours lecture

Prerequisites: CHM 160, 170, 260, 270, and MTH 111

CHM 347

Special Topics in Chemistry

(1/2 to one course as determined by instructor)

The topics will vary from offering to offering as warranted by student and faculty interest. Topics may include nuclear chemistry, polymer chemistry, industrial chemistry, environmental chemistry, forensics, geochemistry, materials science, the history of chemistry, or food chemistry.

Prerequisites: Determined by instructor

CHM 350

Bioorganic Chemistry

(1/2 course)

This lecture-only course will focus on the organic chemistry of proteins, nucleic acids, and carbohydrates. Specific topics to be addressed may include synthesis of proteins and nucleic acids, enzyme and coenzyme mechanisms, and the biological roles of carbohydrates.

Two hours lecture

Prerequisites: CHM 160, 170, 260, 270, and MTH 111

CHM 360

Thermodynamics and Kinetics

This course in physical chemistry has as its focus thermodynamics and kinetics especially as related to chemical and engineering practices. Topics covered include kinetic molecular theory of

gases, properties of ideal and real gases, transport phenomena, rate laws and reaction mechanisms, theories and measurement of reaction rate, the laws of thermodynamics, thermochemistry, spontaneity and equilibrium, systems of variable composition, phase equilibria, phase diagrams, real and ideal solutions, and properties of solutions. The laboratory is designed to develop skills necessary for independent research involving projects of a physical nature.

Three hours lecture, three hours lab

Prerequisites: CHM 160, 260, and 270; MTH 151 and 152; and PHY 101 and 102 or 107 and 108

CHM 365

Chemistry Seminar

(1/2 course)

Upon completion of the course, students will be able to effectively communicate and discuss information obtained from the primary chemical literature and scientific presentations. In addition to attending seminars outside of class, students will select and present the results of current research published in professional journals. Discussion will follow each oral presentation, providing a critical evaluation of the article and its implications. Techniques for giving an effective oral presentation in the sciences, searching the primary literature, and becoming an active listener will also be provided.

Prerequisites: CHM 160, 170, 260, and 270; MTH 151 and 152; PHY 101 and 102 or 107 and 108; and either CHM 360 or 370 as a pre- or corequisite.

CHM 370

Quantum Mechanics

The goal of this course is to emphasize the physical principles of chemistry from the molecular level. Since all materials are really a collection of atoms and/or molecules, one can achieve an understanding of their macroscopic properties by studying the laws that govern subatomic particles, atoms, and molecules. To do so, a fundamental understanding of quantum mechanical principles, the laws that relate to atomic and subatomic particles, as well as statistical mechanics, the laws that describe an ensemble of particles, must be developed. All topics of quantum chemistry will be covered, i.e. atomic structure, molecular structure, and

spectroscopy. The fundamental principles of statistical mechanics such as the partition function, the Boltzmann distribution, and the canonical ensemble will be discussed. Using these results, thermodynamic properties will be predicted in order to make a correspondence between the microscopic and macroscopic world. Computer modeling will be used to assist in the meaning of these abstract principles and to help the student overcome the mathematical complexities associated with physical chemistry. The laboratory component of this course will focus primarily on computational chemistry techniques and the analysis of spectroscopic data.

Three hours lecture, three hours lab

Prerequisites: CHM 160, 260, and 270; MTH 151 and 152; and PHY 101 and 102 or 107 and 108

CHM 380
Synthesis Laboratory
 (1/2 course)

This laboratory-only course is designed to provide experience in a variety of advanced techniques used in the preparation and characterization of organic and inorganic products. These techniques will include asymmetric synthesis, inert atmosphere synthesis, chromatography, and application of spectroscopy, as well as other appropriate supplemental techniques.

Six hours lab

Prerequisites: CHM 160, 170, 260, 270, and MTH 111

CHM 420
Advanced Organic Chemistry
 (1/2 course)

This course will provide an in-depth study of organic topics. These topics may include chemical bonding and structure, molecular orbital theory, stereochemistry (including prochirality), conformational and steric effects on structure and reactivity, the study of organic reaction mechanisms, and concerted pericyclic reactions.

Two hours lecture

Prerequisites: CHM 160, 170, 260, 270 and 320; MTH 151; PHY 101 and 102 or 107 and 108; and either CHM 360, 370, or BCH 320 as a pre- or co-requisite.

CHM 460
Advanced Inorganic Chemistry
 (3/4 course)

This course will explore many of the fundamental principles of inorganic chemistry, with significant emphasis on group theory, molecular orbital theory, angular overlap theory, coordination chemistry, organometallic chemistry, and bio-inorganic chemistry. Specific topics will vary, but will generally include coverage of atomic structure, simple bonding theory, donor-acceptor chemistry, the crystalline solid state, coordination compounds and isomerism, electronic spectra, and IR spectra as it applies to inorganic complexes, substitution mechanisms, and catalysis.

Three hours lecture

Prerequisites: CHM 160, 170, 260, 270; MTH 151 and 152; PHY 101 and 102 or 107 and 108; and CHM 370 as either a pre- or co-requisite

CHM 470
Principles of Instrumental Analysis
 (3/4 course)

This lecture course covers the principles behind and the techniques associated with chemical measurements that utilize scientific instrumentation. Chemical measurements are designed to provide the most accurate and precise information possible and, to acquire information to this level, chemical techniques must be understood in terms of detection limit, sensitivity, and/or spectral resolution. Chemical information obtainable from various techniques will be presented. A particular emphasis will be given to spectroscopic techniques and detectors. Error analysis and data processing techniques that reduce or filter instrument noise and provide signal enhancement will be introduced.

Two hours lecture

Prerequisites: CHM 160, 170, 260, 270, and 370; MTH 151 and 152; and PHY 101 and 102 or 107 and 108

CHM 480
Chemical Measurements Laboratory
 (1/2 course)

Advanced chemical measurements typically involve instruments that utilize state-of-the-art technology. This laboratory course provides

students the hands-on experience with scientific instrumentation that is commonly used for chemical analysis. Opportunity will be provided to expose students to basic electronics and the major components of instruments. The techniques of chemical separations, electrochemical methods and spectroscopy will be explored. An understanding of the physical and chemical principles behind each method as well as the processes that limit the chemical measurement will be conveyed through formal laboratory reports.

Six hours lab

Prerequisites: CHM 160, 170, 260, 270, and one from 360, 370, and BCH 320; MTH 151; and PHY 101 and 102 or 107 and 108

CHM 500, 501

Independent Study

CHILD DEVELOPMENT AND EDUCATION

Professors: Cavoti (chair), R. Easton,
Longo (chair), Myers
Associate Professors: Bennett, Carpenter, Wilson
Assistant Professors: Grime, Klitz
Instructors: P. Easton, Day, Stout

Child development and education is an inter-departmental major that offers a holistic approach to how children learn, focusing on development from birth through childhood. The major combines coursework in education and psychology. The requirements have been selected to provide students with a firm grounding in developmental psychology and the principles of elementary instruction and assessment. This curriculum has been designed to prepare students with an understanding of the developmental needs and cognitive abilities of students across a broad range of situations and academic disciplines.

MAJOR REQUIREMENTS: All students must successfully complete a minimum of 12 courses in psychology and education plus a capstone experience.

Psychology: PSY 101, 102, 225, 265, 275

Education: EDU 201, 207, 301, 302, 303, 304, and 403

CAPSTONE EXPERIENCE: EDU 406 and either 407 (certification) or 408 (noncertification). During the spring and fall terms of their senior year, all majors take a set of specific courses designed for the capstone experience that completes the major. In the fall of the senior year, students take EDU 302, 303, and 403. In the spring of the senior year, students seeking certification must take EDU 406 and 407 (student teaching), which combined count as a full load of 4 courses. Students not seeking certification take EDU 406 and 408 (independent study in child development and education), which count as two courses along with two other courses to complete the term.

NOTE: Students may choose to major in either psychology or child development and education. They may not major in both.

ELEMENTARY EDUCATION

CERTIFICATION K-6: Students majoring in child development and education may seek certification in elementary education K-6. In addition to the major, those students seeking certification must complete the admission procedures for the program and take a series of content courses in English (one composition course, ENG 111/112, and one literature course, ENG 190), math (MTH 123-124), history (one approved U.S. history course), geography (EDU 205), and science (two approved science courses with one as an approved lab science). Students interested in elementary education certification should consult the education section of the College catalog for the details of these requirements and meet with an education or psychology department representative of the Committee on the Teaching Profession (COTP). A list of COTP representatives is located in the education department office.

CHINESE

China is a land of superlatives—the oldest civilization; the largest population; and the fastest-growing major economy. It is also destined to remain one of America's most important partners for decades. Whatever a student's interests—cultural, economic, scientific, or diplomatic—the Chinese language can become the doorway into the opportunities and intellectual stimulation afforded by four thousand years of culture and a fifth of the world's population. Courses in Chinese are offered by the Department of Modern Languages.

PLACEMENT PROCEDURES: All students taking a language at W&J must take the student information questionnaire prior to enrollment in that language. Students with a background in this language must also complete the computerized adaptive placement exam (CAPE). Incoming freshmen will usually take the exam prior to registration during summer orientation, but the exam may be administered at any time. The results of the questionnaire and exam will usually determine the level at which a student will begin a course of study in the language. A student who falls at the high or low end of a scoring range may be placed higher or lower than the course indicated, depending on the number of years of language the student has had. Placement in these situations is done in consultation with a faculty member from the relevant program. Because of the varying requirements for completing a major or minor in language, it is to the student's advantage to begin at the highest level possible.

CHN 105, 106 **Elementary Chinese I, II**

An introduction to the basics of spoken Mandarin with an emphasis on performance in culturally appropriate ways. Students engage in conversations, provide and obtain information, express feelings and emotions, exchange opinions in Chinese, and become familiar with the foundations of the Chinese writing system.

Taught largely in Chinese.

Prerequisite: CHN 105 for CHN 106

CHN 207, 208 **Intermediate I, II**

Intended for students who have completed the first-year sequence or its equivalent in Mandarin, these courses develop listening and speaking skills as well as skills in reading and writing Chinese characters. In addition to addressing situations in contemporary Chinese, courses will create in the students an awareness of culture in China.

Taught largely in Chinese.

Prerequisite: CHN 106 for 207; CHN 207 for 208

CHN 309 **Advanced I**

This course focuses on the development and application of advanced functional Chinese language skills, with emphases on speaking and writing. Reading and cultural skills are developed through a content-based approach with concentration on contemporary Chinese issues.

Taught largely in Chinese.

Prerequisite: CHN 208, or the permission of the instructor

COMMUNICATION

Professor: Cameron (co-chair)

Associate Professors: Fleury (co-chair), Frank

Assistant Professors: Maresh, Shaw

Communication at Washington & Jefferson College is grounded in the disciplines of rhetoric and theatre, each with a long-standing interest in citizenship. Theatre as an art helps a community reflect on its problems, and rhetoric is the art of argument through which shared problems are managed or solved. These arts of citizenship are the lenses through which our program examines interactions between artists, speakers, writers, and audiences, preparing students for meaningful participation in civic and professional communities

MINOR REQUIREMENTS:

- At least one introductory course from this group: COM 120, 130, 140, or 240
- At least two performance courses from this group: Com 218, 220, or THR 180
- At least one 300-level COM course
- Other courses may be counted with permission from the chair of the Department of Theatre and Communication.

NOTE: Courses not listed here may only be counted toward the communication minor with written permission from the chair of the Department of Theatre and Communication.

COM 120

Communication as a Liberal Art

An examination of communication as a path to citizenship and personal liberation. This study of ancient and recent thought on dialectic, rhetoric, and narrative includes attention to persistent tensions in human interaction: individual and community, liberty and duty, private and public, tragic and comic.

COM 130

Film Art

This course is an introduction to narrative film as an artistic form and cultural practice. Students in the course examine relationships between

image and reality, relationships between artistic process and social meaning and film genres.

COM 140

Culture and the Media

This course is a survey of the history, theories, and processes of the mass media. It examines the technological developments, ethical issues, and societal impact of a variety of mass media, including television, radio, print journalism, motion pictures, recorded music, and the Internet.

COM 218

Storytelling

This course is for students interested in learning how to tell a story. The course investigates the connections among the teller, the story, the audience, and the universal themes found in myths, folk tales, and modern narratives. Built on speaking, not writing, the course also is designed to open the storyteller to a new understanding of the self.

COM 220

Public Speaking

An introduction to argument, exposition, and narration as basic repertoires of thought and action for public speaking, this course addresses issues of purpose, structure, content, delivery, and audience in the invention, performance, and critique of basic oral communication styles.

COM 240

Introduction to Rhetoric

This course is an introduction to ancient and current theories of rhetoric as a discipline within the field of communication. Building upon general speaking and writing skills, the emphases in this course are analysis and criticism of the art by which discourse is adapted to its end. Since the classical Greek period, rhetoric has been a discipline centrally concerned with effective citizenship, with discourse as the vehicle through which individuals participate in communal life.

COM 250**Topics in Communication**

This course focuses on topics relevant to theatre and/or communication varying from year to year.

COM 320**Rhetoric and Power**

An examination of how power is concentrated and deployed in various contexts via repertoires of rhetorical conventions. Students investigate a range of strategic practices (e.g. public speaking, gossip, writing, bodily display, silence, incivility, spatial relationships, jurisdiction) as the building blocks of communication styles (e.g. radical, realist, republican, courtly, bureaucratic) and explore ethical questions relevant to the exercise of specific styles.

Prerequisite: One communication course.

COM 330**Film in Context**

This course is an examination of motion pictures as cultural artifacts, shapers of society, and modes of discourse. It examines a group of films organized around a subject area (war, politics, crime, gender roles) or an historical era (the Depression, Post-World War II America, the Vietnam Era). Genre and/or philosophical approaches to film also may serve as the basis of the course in a given term. The course challenges students to draw meaningful parallels between motion pictures and the society from which they emerge.

Prerequisite: One communication course.

COM 340**Television and American Culture**

This course is a survey of television, its history and technology, and an investigation of the current culture. It explores the relationship between the medium and the society it reflects and shapes. A major goal will be the development of a personal, critical perspective on television and culture.

Prerequisite: One communication or one theatre course.

COM 360**Radio Communication and Culture**

This course is an advanced study of general principles of communication in a specific medium. Both critical and practical, the course covers radio history and performance, particularly as it has shaped and is shaped by culture. Students prepare programming for WNJR (the college radio station) and speak on the air, hosting a live radio program outside of class.

Prerequisite: One communication course

COM 381**Screenwriting**

This course enables the student to develop a screenplay. Through a series of lectures, discussions, in-class writing exercises, and take-home assignments, the course leads the student through the story proposal, the treatment, and the first draft of a full-length screenplay. Included are workshops on “pitching film stories.”

Prerequisite: One communication or one theatre course.

COM 500**Independent Study**

EARTH AND SPACE SCIENCE

Associate Professor: Pettersen

The Earth and Space Science Program offers elective courses related to the physics of the Earth and the universe.

ESS 201

Physical Geology

This course is a study of the composition and structure of the Earth and the geological processes that shape its surface. Major topics include minerals and rocks; igneous, metamorphic, and sedimentary activity; landforms, rivers, glaciers, and oceans; and plate tectonics. One all-day field trip is required.

Three hours lecture, three hours lab

ESS 202

Historical Geology

A study of the evolution of the Earth, major topics of the course include formation of the planet, transformation and development of the crust, and the evolution of life. Techniques of petrology and paleontology are discussed. One all-day field trip is required.

Three hours lecture, three hours lab

ESS 209

Planetary Astronomy

This course is a study of the planets and their motions; the sun, the moon, the other members of the solar system; and astronomical instruments.

Three hours lecture, three hours lab

ESS 210

Stellar Astronomy

This course is a study of the sun as a star, the stars, the galaxies, and the universe.

Three hours lecture, three hours lab

ESS 232

Meteorology

A course dealing with the various aspects of the science of the weather, areas of study will include clouds, weather variables and their measurements, atmospheric motion, wave

cyclone formation, precipitation, storm types, and special problems in modern meteorology, such as weather modification, satellite weather forecasting, and water and air pollution.

EAST ASIAN STUDIES

Professor: Edward Greb, Sociology
Associate Professor: Zheya Gai, Political Science
(Director)
Assistant Professor: Patrick Caffrey, History

MINOR REQUIREMENTS: The East Asian Studies Minor requires seven courses: two to four language courses in Mandarin Chinese or Japanese and three to five non-language courses on East Asia. Students may choose to do 2 language courses + 5 non-language courses, 3 language courses + 4 non-language courses, or 4 language courses + 3 non-language courses. Students may take Mandarin Chinese or Japanese on campus or take them off campus. They may choose to take their language courses all in one language or in both languages. Students are to choose three to five non-language courses from the following list and these courses must be from at least two disciplines, and one of them must be at the 300 level or above:

HIS 151	Asian Heritage
HIS 250	History of Modern Japan
HIS 251	China through Film
HIS 254	Ancient China
HIS 255	History of Modern China
HIS 350	Contemporary East Asia
HIS 352	China through Literature
HIS 256	Chinese History Tour (Intersession Abroad Course)
POL 231	Politics of China
POL 250	Special Topics: China! (Intersession Abroad Course)
POL 250	Special Topics: Political Economy of East Asia
POL 350	Special Topics: East Asia in World Politics
SOC 251/351	Japan in Japan (Intersession Abroad Course)
SOC/ANT 250	Japan Society
SOC 350	Japanese Business and Industry

NOTE: Students who are familiar with Mandarin Chinese or Japanese prior to their enrollment at the College may complete the East Asian Studies minor without taking additional language courses; such students would complete the minor with six non-language courses. Students who major in International Studies may not minor in East Asian Studies.

ECONOMICS

Professor: Gregor (chair)

Associate Professors: Gidas, Liberatore

Assistant Professors: L. Dunn, R. Dunn,

Gottschall, Takashima, Wang

Economics pertains to the interaction amongst individuals as they use scarce means toward the attainment of their goals. The objective of the economics major is to promote in students an understanding of these interactions and thus provide them a foundation for rational and effective participation in society. Specifically, students receive the education necessary to begin careers in business, finance, government, and education or to pursue graduate degrees in such fields as business administration, economics, and law. The major strives to foster intellectual curiosity about social process and eagerness to use analytical techniques in solving social problems.

MAJOR REQUIREMENTS: ECN 101, 102, 201, 202, 340, 498, MTH 131 or 151, and 225. Students should elect three courses from the 300-level economics courses and one course from the 400-level economics courses.

The Department of Economics requires that the following courses be completed at Washington & Jefferson College by all students majoring in economics: ECN 101, 102, 201, and 202, MTH 131 (or MTH 151). When these courses are required as prerequisites for other departmental courses a grade of C or better is required to satisfy the prerequisite. A student admitted to the College after having completed these courses at another college or university must petition the chair of the department for special consideration in order to waive this requirement and transfer any of the required courses to his or her major at W&J. While not required, the department encourages the students to complete an internship in accounting.

MINOR REQUIREMENTS: ECN 101, 102, 201, or 202. Elect three courses from the 300- or 400-level economics courses.

NOTE: Students considering doing graduate work in economics are strongly encouraged to

complete the following courses while at Washington & Jefferson College: MTH 152, 208, 217, 308, 415, and ECN 401.

ECN 101

Principles of Microeconomics

Primary concern is with the study of individual decision units, such as the consumer, households, and firms. Analysis will focus on the way in which the decisions of these units interrelate to determine relative prices of goods and factors of production and quantities that are bought and sold. The ultimate aim is to understand the mechanism by which the total amount of resources is allocated among alternative uses. Economic tools will be used to analyze both economic and political processes.

ECN 102

Principles of Macroeconomics

Primary concern is with the study of relationships between broad economic aggregates, the most important of which are aggregate output and income, aggregate saving and consumers' expenditure, investment, aggregate employment, the quantity of money, the average price level, and the balance of payments. Models are developed to explain determinants of the magnitudes of these aggregates and of their rates of change through time.

ECN 201

Intermediate Microeconomics

This course is a study of consumer and business behavior with emphasis on corporate pricing and output decisions under varying degrees of competition.

Offered: Spring term only

Prerequisites: ECN 101 and either MTH 131 or 151

ECN 202

Intermediate Macroeconomics

This course is a study of the measurement, growth, and instability of key economic aggregates, and the extent to which "targets" or "goals" may be attained via monetary and fiscal policy.

Offered: Fall term only

Prerequisites: ECN 102 and either MTH 131 or 151

ECN 301

Managerial Economics

The course deals with the application of economic principles to the managerial decision-making process. Emphasis is placed on the generation and use of empirical demand and cost relationships with respect to pricing and output decisions under situations of certainty, uncertainty, and risk.

Prerequisites: ECN 101, MTH 225, and either MTH 131 or 151

ECN 303

Money and Banking

This course will cover the following topics: the nature and origins of money; the financial system which consists of the financial industries and the central banking system; the supply of money and its control; money, the macroeconomy, and monetary policy; and international money and finance.

Offered: Spring term only

Prerequisites: ECN 101 and 102

ECN 306

U.S. Economic History

This course is a study of the sources and consequences of economic and social change from colonial to recent times. This course is the same as HIS 210; however, students who enroll for credit in economics shall complete an additional research assignment in economic history.

Prerequisites: ECN 101 and 102

ECN 309

Urban and Regional Economics

This course is an investigation into the economic issues facing metropolitan areas and regions with emphasis on patterns of business and residential location, development, revenue generation, transportation networks, taxation, and pollution.

Prerequisites: ECN 101 and 102

ECN 319

Economic Analysis of Law

This course is an economic analysis of various fields of law, including the primary areas of common law (property law, tort law, contract law, and criminal law). Although the course

necessarily will entail a survey of legal principles involved, the emphasis of the course will be on the economic analysis of those principles. Prior knowledge of law will be helpful but not necessary.

Prerequisite: ECN 101

ECN 321

International Finance and Macroeconomics

This course provides an in-depth analysis of the international financial system, international monetary economics, open economy macroeconomics, and related topics. The topics to be covered include exchange rate determination and the foreign exchange market, balance of payments analysis, policy making in the open economy, and the international monetary system.

Prerequisites: ECN 101 and 102

ECN 322

Economics of the Public Sector

This course is a study of public revenues and expenditures at the local, state, and federal levels. Consideration is given to types of taxes, their equity and administration, budgetary control, and the public debt.

Prerequisites: ECN 101 and 102

ECN 323

Labor Economics

This course is a study of the history of the U.S. labor movement, labor legislation, labor market determinations, wage-setting, unemployment, strikes, poverty, current labor problems, and collective bargaining.

Prerequisite: ECN 101

ECN 330

Industrial Organization and Management

This course is a study of market structure and conduct and performance with emphasis on corporate profitability, growth, pricing, advertising outlay, research and development, scale of operation, and government regulation.

Prerequisite: ECN 101

ECN 340**Econometrics**

An investigation of the application of econometric techniques to the study of economic decisions, this course emphasizes business and economic problems. Topics include least squares, simple regression, multiple regression, identification, modeling, and computer applications.

Offered: Fall term only

Prerequisites: ECN 101 and 102, either MTH 131 or 151, and 225

ECN 391**Environmental and Natural Resource Economics**

This course will examine both natural resource and environmental issues from the uniquely economic perspective. Students will become familiar with how economic tools and concepts such as property rights, externalities, market failure, cost-benefit analysis, discounting, optimality, and sustainability can be used to analyze issues surrounding depletable and renewable resources. The economic perspective on environmental pollution and pollution control also will be analyzed using these tools and concepts.

Prerequisite: ECN 101

ECN 397**Topics in Economics**

The class schedules and students' transcripts will indicate specific course offerings and completions.

Prerequisite: Permission of the instructor

ECN 398**The Economics of Gender**

In the United States and the rest of the world, one can observe different economic outcomes for men and women that are both significant and persistent. This course uses economic theory and analysis in an attempt to explain why gender differences lead to different outcomes in education, career choices, family roles, and earnings. To analyze these differences, this course looks at economic models that explicitly include men and women, at statistics measuring the differences between men and women, and at government and corporate policies that affect men and women differently. This course also includes comparisons of gender-related out-

comes across countries, over time in the United States, and across ethnic groups.

Prerequisite: ECN 101

ECN 401**Mathematical Economics**

The purpose of this course is the study of mathematical techniques used in economic analysis. The primary emphasis will be on the use of calculus as a tool of economic analysis. Single-independent-variable calculus will be reviewed and utilized in economic analysis. Then multivariate calculus will be covered and applied in the realm of optimization as well as comparative statistics. Matrix algebra will also be covered and used as an important helper in many of the frameworks utilized in the course.

Prerequisites: ECN 201, 202, and MTH 131 or 151

ECN 405**Economic Development**

This course is a study of the economic growth problems of the third world. A major part of the course will be an analysis of various development strategies and how they affect population growth, resource allocation, external dependence, employment, and social relations.

Prerequisites: ECN 201 and 202

ECN 420**History of Economic Thought**

This course is a survey of the principal writers in economics and the development of their thought from the introduction of political economy to the present time.

Prerequisites: ECN 201 and 202

ECN 421**International Trade Theory**

A study of classical and modern theories of international trade with emphasis on the theory of tariffs, quotas, and customs unions; monopoly and international trade; arguments for free trade and protection; commercial policy of the U.S.; and promotion of trade and growth.

Prerequisite: ECN 201

ECN 497

Advanced Topics in Economics or Current Problems in Economics

The class schedules and students' transcripts will indicate specific course offerings and completions.

Prerequisite: Permission of the instructor

ECN 498

Senior Thesis

Students are expected to develop an acceptable topic, conduct a thorough literature search, and conduct necessary data gathering, where appropriate. Finally, students will prepare and defend a written report.

Prerequisites: ECN 201, 202, 340, and senior status

ECN 500, 501

Independent Study

Prerequisite: Permission of the instructor

EDUCATION (TEACHER CERTIFICATION)

Professor: Longo (chair)

Associate Professor: Carpenter

The preparation of teachers has been a proud and historic part of the heritage of Washington & Jefferson College since its founding in 1781. The education department's mission is to attract to the teaching profession intelligent men and women of competence, maturity, creativity, and caring who are effective lifelong learners, responsible citizens, and personal and professional role models prepared to contribute positively to the world in which they live. To fulfill its educational mission, the education department offers a broad curriculum that actively involves students in student taught demonstration lessons and diverse field experiences connecting educational theory with best practice. Active learning and complete cognitive and social participation are required of all participants. The philosophy of the program is that the way to learn to teach is to teach, which is incorporated in the motto "Docendo Discimus"—"We learn by teaching."

The Department of Education offers three program options for students seeking teacher certification in the state of Pennsylvania:

Option 1: Students seeking certification to teach at the elementary level (grades K–6) must major in child development and education (see page 53). This is an interdisciplinary major offered by the Department of Education and the College's Department of Psychology.

Option 2: Students seeking certification to teach at the secondary level (grades 7–12) must major in the academic area in which they plan to teach and minor in education.

Option 3: Students seeking certification to teach K–12 in an academic specialty area (art education, environmental education, or one of the modern language areas—French, German, or Spanish) must major in the academic area in which they plan to teach and minor in education.

Any of the options may lead to teacher certification if steps mandated by the College,

the W&J education department, and the Pennsylvania Department of Education (PDE) are properly followed.

ELEMENTARY EDUCATION

(CERTIFICATION K–6): Students seeking certification in elementary education must major in child development and education (see page 53). The following education courses are required to complete the education portion of the child development and education major: EDU 201, 207, 301, 302, 303, 304, 403, 406, and 407. Students must also take the following psychology courses to complete the psychology requirements of this interdisciplinary major: PSY 101, 102, 225, 265, 275.

Additionally, students seeking certification K–6 are mandated by the PDE to successfully complete a set of eight courses designed to provide the breadth of knowledge required by the elementary school curriculum: two English courses (one literature and one composition), two college math courses (MTH 123 and 124), one U.S. history course, two science courses (one course must have a lab from an approved list available in the education department), and one geography course (EDU 205).

Students not interested in teacher certification may major in child development and education by substituting EDU 408: Independent Study in Child Development and Education for EDU 407.

SECONDARY EDUCATION

(CERTIFICATION 7–12): Students seeking certification in secondary education (7–12) must complete an academic major in the area they plan to teach with a minor in education.

Secondary education is offered in the following areas: biology, chemistry, social studies (majors in history), English, mathematics, and physics. See the appropriate departmental section of the catalog for major department requirements for certification. In addition to the requirements of the major department, students seeking secondary or specialty area certification must complete EDU 201, 207, 301, 403, 406, and 407 (credited as three courses). Completion of these education courses constitutes an

education minor. The Department of Education strongly recommends that students interested in citizenship education or social science follow the curriculum mandates for social studies.

SPECIALTY AREA

(CERTIFICATION K–12): Students seeking certification in a K–12 specialty content area, such as art education, environmental education, or modern languages (French, German, or Spanish) must major in that academic area and minor in education. See the appropriate departmental section of the catalog for the major department requirements for certification.

GRADUATION REQUIREMENTS: All students seeking elementary, secondary, or specialty area certification must also satisfy the College’s graduation requirements in full. Transfer students with a bachelor’s degree from another institution must complete the certification requirements, but need not complete other requirements for graduation.

TEACHER CERTIFICATION

PROGRAM: The teacher certification program is a four-step process. The first three steps include a review and approval of the applicant by the Committee on the Teaching Profession (COTP). The fourth step is certification by the Pennsylvania Department of Education. A Handbook for Students Seeking Certification to Teach is available in the education department to help guide students through the process. It is important for students to check with the education department as soon as possible (ideally during the freshman year) in order to follow the required procedures for successful completion of the certification process and to maintain regular contact with the education department.

Students seeking admission into the certification program are advised to meet the admission requirements and complete the admission process by the end of the sophomore year. Transfer students apply by the same procedures and must include transcripts from previous institutions.

Steps Typical Timing: *Check with the education department for specific deadlines at the beginning of each spring term.

Step 1: Requirements for formal

admission to the teacher certification program

- Completion of the sophomore year (minimum of 12 courses or 48 term credit hours of college coursework or the full-time equivalent of college-level study)
- Two full courses (at least six term hours or the equivalent) in college-level mathematics
- Two full courses (at least six term hours or the equivalent) in college-level English with one course in composition and one course in literature
- 3.00 or better cumulative grade point average at Washington & Jefferson College and on any college course work with a current transcript on file in the registrar’s office (transfer courses)
- Documentation of passing scores on the PRAXIS I
- Current Criminal Record Clearance (Act 34) and Childcare Abuse History Clearance (Act 151)
- FBI Clearance
- Current TB Clearance—originals on file in the education office
- Complete formal application form (All documentation must be on file in the education department.)

Step 2: Requirements for application for student teaching

- Have been admitted into the teacher certification program by COTP
- Mathematically capable of having a 3.00 or better cumulative grade point average at Washington & Jefferson College and on any college coursework with a current transcript on file in the registrar’s office (transfer courses) by graduation
- Documentation of passing scores on PRAXIS II or proof of registration for the PRAXIS

NOTE: The student must provide documentation of passing scores on PRAXIS II prior to beginning student teaching.

- A brief letter of introduction addressed

to the COTP outlining career goals.

- Submit three letters of recommendation (at least two of the letters must be from W&J faculty in the area in which the student is seeking certification).
- Current Criminal Record Clearance (Act 34) and Childcare Abuse History Clearance (Act 151)
- FBI Clearance
- Current TB Clearance—originals on file in the education office
- Submit a current transcript to the education department
- Complete a formal application to student teach with the signature of the student's COTP member (All documentation must be on file in the education department.)

Step 3: Requirements for approval for certification and exit criteria

Once students seeking certification complete EDU 406 and 407, they are reviewed by the Committee on the Teaching Profession. The committee considers the student's academic record and the evaluation of his or her student teaching by cooperating teachers, the education department, and the departmental representative from the committee, as well as the student's maturity, professional conduct, and commitment as demonstrated during his or her student teaching experience. If the committee is satisfied that the student "is of good moral character and possesses the personal qualities and professional knowledge and skill" necessary for certification, the committee will recommend to the state certifying officer for the College that the student be recommended for certification. In addition to committee approval, students must have the following to be certified in the Commonwealth of Pennsylvania:

- 3.00 cumulative grade point average in all college courses
- A completed bachelor's degree in academic certification area
- Passing scores on the PRAXIS I and PRAXIS II
- Current Criminal Record Clearance (Act 34)
- Childcare Abuse History Clearance (Act

151)

- FBI Clearance
- TB Clearance—originals on file in the education office
- A successful student teaching experience
- A completed professional portfolio
- W&J also requires two successful completion and documentation of the Pennsylvania Statewide Evaluation for Student Professional Knowledge and Practice PDE 430 form at the satisfactory or above level.

Step 4: Recommendation for certification

COTP recommendation to the College's certification officer is required for teacher certification. A list of the COTP representatives is available in the education department.

EDU 201

Foundations of Education

This course focuses on the historic, philosophical, sociological, and economic roots of American education. Connections are made between past and current events as they impact American education. This course is recommended as the initial course for those considering elementary or secondary teacher certification. A weekly internship at a local school is required.

Prerequisites: Praxis I and clearances (FBI, Criminal Record, Child Abuse, and TB), or clearances and permission of the education department chair

EDU 205

Geography for Teachers

This course is designed for future classroom teachers who will be teaching a course in geography or integrating geography throughout their curriculum. Students will research and study the cultural, environmental, ecological, physical, and political features of various geographical regions and determine the direct and indirect impact on diverse societies. A weekly internship at a local school is required.

Prerequisites: EDU 201 and Praxis I and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 207

Educational Psychology

This course focuses on theorists, theories, and practices of psychology within an educational context. Motivation and learning, growth and development, and gender equity in the classroom will receive primary consideration. A weekly internship at a local school is required.

Prerequisites: PSY 101, EDU 201, and Praxis I (passed) and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 250

Teaching Internship

This course focuses on in-service participation as a full-time teacher's aide in an elementary, junior, middle, or high school during the January Intersession. A seminar component focuses on successfully understanding and navigating the school culture and researching and analyzing the dynamics of successful school reform. A three-week full-time internship at a school is required.

Prerequisites: EDU 201, 207, and Praxis I (passed) and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 301

The Exceptional Learner

This course focuses on the theory and practice in the effective instruction and assessment of the exceptional learner. Social and cognitive development and school and classroom accommodations for both gifted and handicapped students will be researched and examined in classroom and school settings. National and state laws and school district guidelines pertaining to the treatment and teaching of the nontraditional learner also will be studied along with inclusion of students with special needs in regular education classrooms. A weekly school internship is required.

Prerequisites: EDU 201, 207, and Praxis I (passed) and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 302

Teaching Methodologies for the Elementary Curriculum

This course provides an overview of the development of problem solving and scientific reasoning skills in elementary students (K–6). It connects theory and practice of effective instruction and assessment strategies in teaching modules emphasizing mathematics, science, social studies, and the humanities. Emphasis will be placed on concrete manipulatives, integration of science and mathematics with other subjects, reading and writing across the curriculum, and classroom management. Throughout this course students integrate the Pennsylvania Academic Standards, the Pennsylvania State Student Assessment Standards and Assessment Anchors, the PDE Chapter 354.33 Professional Instructional Standards, and the PDE 430 Professional Knowledge and Practice Standards into course activities and assignments. This course is recommended for seniors to take concurrently with EDU 303 to prepare them for student teaching. A weekly school internship is required.

Prerequisites: EDU 201, 207, 301, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair.

EDU 303

Teaching Reading and Writing in the Elementary School

This course introduces theory, principles, and practices of teaching reading and writing, the developmental nature of language and reading ability, and effective classroom strategies for writing across the curriculum. Throughout this course students integrate the Pennsylvania Academic Standards, the Pennsylvania State Student Assessment Standards and Assessment Anchors, the PDE Chapter 354.33 Professional Instructional Standards, and the PDE 430 Professional Knowledge and Practice Standards into course activities and assignments. This course is recommended for seniors to take concurrently with EDU 302 to prepare them for student teaching. A weekly school internship is required.

Prerequisites: EDU 201, 207, 301, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the

education department chair.

EDU 304

Children's Literature

This survey course introduces students to several genres of literature for children, including fiction, biography, fantasy, folk tales, poetry, informational, and picture books. Emphasis will be given to the value of both Western and non-Western literature, gender fairness, and inclusive multicultural perspectives in the selection and teaching of classroom literature. Students will read and critique selections from each of the above categories focusing on content, literary analysis, inclusivity, and the instructional skills necessary to teach reading and writing through the use of children's literature. A weekly school internship is required.

Prerequisites: EDU 201, 207, 301, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 309

Individualized Instruction

This course focuses on the study of the diverse social, cultural, and academic backgrounds represented in classrooms. Students will review and present research related on the issue of preparing teaching methods and materials for individualizing instruction to meet diverse needs. Class readings and discussions will focus on theories of individualizing instruction and the problems of applying individualized instruction in particular school settings. An internship at a local school is required.

Prerequisites: EDU 201, 207, 301, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 321

Diagnostic Teaching

This course focuses on preparing teachers to develop diagnostic teaching skills through the use of educational technology to expand the curriculum to harmonize with the learner's competencies, needs, interests, and abilities. Emphasis is on researching, recognizing, and effectively responding to student's strengths and weaknesses through the use of research and

educational technology. An internship at a local school is required.

Prerequisites: EDU 201, 207, 301, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair.

EDU 403

Principles of Instruction and Assessment

This course focuses on preparing students planning to student teach during the spring term of the senior year in the theories and practice of effective inclusive instruction and assessment. Education seniors are required to take this course during the fall term of the senior year. This course involves intensive reading including research in academic content areas. Construction of various lessons, test forms, and basic quantitative concepts are included. An internship at a local school is required.

Prerequisites: EDU 201, 207, 301, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 406

Principles of Curriculum Design

This course allows students to analyze, synthesize, and evaluate information learned during their child development and education major or their teacher education secondary certification program. Students will design curricular materials related to a particular subject area or age group. Topics include curricular research, instructional activities, and methodologies to evaluate all aspects of the classroom experience integrating the Pennsylvania Academic Standards, the Pennsylvania State Student Assessment Standards and Assessment Anchors, PDE Chapter 354.33 Professional Instructional Standards, and PDE 430 Professional Knowledge and Practice Standards.

Prerequisites: EDU 201, 207, 301, 403, and Praxis I and II and clearances (FBI, Criminal Record, Child Abuse, and TB) or clearances and permission of the education department chair

EDU 407

Student Teaching

This 12-week school internship is the capstone experience for students seeking certification to

teach. Students are assigned to a secondary or elementary school to connect theory, professional knowledge, and best practice under the guidance and supervision of the education department faculty, secondary or elementary school personnel, and members of the COTP. This course is taken concurrently with EDU 406.

Prerequisites: EDU 201, 207, 301, 403, and Praxis I and II (passed) and clearances (FBI, Criminal Record, Child Abuse, and TB).

PROGRAM REQUIREMENTS FOR

STUDENT TEACHING: Students are asked to abide by the following policy while student teaching—Students may not work or take any additional coursework during this term without the written permission of the chair of the education department.

EDU 408

Independent Study in Child Development and Education

Students taking this course will explore and research alternatives to teacher certification. For their capstone project they will design a curriculum, educational program, teaching methodology, or empirical project that requires them to expand their knowledge through research and apply the psychological and educational principles they have experienced in the major. Professional internships are required.

Prerequisites: Permission of the education department chair, EDU 201, 207, 301, 403, and clearances (FBI, Criminal Record, Child Abuse, and TB). EDU 406 must be taken concurrently with EDU 408.

EDU 500

Independent Study

INDIVIDUAL PROGRAM

REQUIREMENTS: Students seeking certification must meet and plan their course schedules with their COTP representative as soon as possible. Students must complete the admission and course requirements in education. Individual program requirements are listed below:

Art Education

Students must take ARH 101, 102, 355; ART 108, 112, 361, 363, and 400; one 300- or 400-level ART course; and one 400-level ART course except ART 425.

Biology: General Biology

Students must major in general biology and take BIO 201, 212, 235, 320, and choose one from 202 or 206. In addition, the student must complete at least one course in the following areas: general chemistry, physics, mathematics, and earth and space science. (Courses that would fulfill these requirements include: CHM 160 and 170, and 260; PHY 101 or 107; MTH 225 or 245, and any ESS course.) Also, the student must serve at least one term as a lab assistant prior to student teaching.

Chemistry

Students must complete the required courses for an academic major in chemistry.

Elementary Education

Students must major in child development and education and take the required education courses: EDU 201, 207, 301, 302, 303, 304, and 406/407; and the psychology component: PSY 101, 102, 225, 265, 275, and PSY 330 or EDU 403 for assessment.

Content courses for certification in English (one composition course, ENG 111/112, and one literature course, ENG 190), two math (MTH 123 and 124), history (one approved U.S. history course), geography (EDU 205), and science (two approved science courses with one as an approved lab science).

English

Students must complete the required courses for the English major, including ENG 200 and 289. In addition, the student must complete the following courses in communications and theatre: COM 220 and THR 152.

Environmental Education

Students must complete an academic major and take the following courses: EVS 101, 201, and 330; BIO 320; ECN 391; SOC 262; POL 313; and PHL 231.

Math

Students must complete the required courses for the mathematics major including MTH 301, 412, and one course from MTH 225 or 305.

Modern Languages: French, German, or Spanish

Students must complete the required courses for an academic major in French, German, or Spanish and take FRN, GER, or SPN 260.

Physics

Students must complete the required courses for an academic major in physics.

Social Studies: History

Students seeking teacher certification in social studies must complete the required courses for a major in history. The student must complete the following courses in history, economics, political science, psychology, sociology, and geography: HIS 201, 204, 206, 228, and 231; ECN 102; POL 111; PSY 101; SOC 101; and SOC/ANT 175 (anthropology) and SOC 261 (geography).

ENGINEERING

Associate Professor: Cannon (engineering liaison)

The dual-degree engineering program combines the strengths of a liberal arts education and specialization in a field of engineering. Students receive a broad education that includes stronger training in the basic sciences and communication skills in addition to specialized training in a particular field of engineering.

Students spend three years at W&J and two years at an engineering school. Upon successful completion of the program, the student receives a bachelor of arts degree from W&J and a bachelor of science degree in an engineering field from the partner school. Cooperative programs in engineering have been established with Columbia University in New York City, Case Western Reserve University in Cleveland, Ohio, and Washington University in St. Louis, Missouri. However, students may choose to complete their engineering studies at other schools with engineering programs.

Students must complete W&J's degree requirements. Normally, some of the requirements are fulfilled by transferring courses back from the engineering school. However, consistent with W&J's degree requirements, no more than three courses may be earned off campus in the major.

To be guaranteed acceptance at affiliated schools, students must

- Have a cumulative grade point average of 3.00 or better (3.25 for Washington University);
- Have a grade point average of 3.00 (3.25 for Washington University) or better in approved courses in chemistry, mathematics, physics, and computer programming; and
- Complete any courses required by the individual schools.
- There are slight variations in requirements between schools and between different fields in engineering. Courses required for all engineering fields are CHM 160, 170, ITL 102, MTH 151, 152, 208, 308, and PHY 107, 108, and

209. PHY 234 may be substituted for MTH 308.

Students should work closely with the engineering liaison in order to ensure a smooth transition to the affiliated schools and to assure completion of W&J graduation requirements.

ENGLISH

Professors: Drew-Bear, Easton, Kyler, Troost
(chair)

Associate Professors: Mayer, McEvoy, Shiller

Assistant Professors: Harding, Mulvania,
Robbins, Verdun

The English program aims to develop students who read with comprehension, insight, and appreciation; write with competence, grace, and authority; speak with clarity and confidence; and know about literature and literary history. It prepares them for careers that require cultural breadth, strong writing and research skills, and an ability to read, synthesize, and analyze written material.

MAJOR REQUIREMENTS: Ten courses, including ENG 190, 263, and 400; a survey course chosen from ENG 264, 265, or 266; four English courses at the 300-level; and two English courses numbered 200 or higher. No more than two Intersession courses may count for the major.

MINOR REQUIREMENTS: Six courses including ENG 190; a survey course chosen from ENG 263, 264, 265, or 266; one other English course at the 200-level; two English courses at the 300-level; one additional English course at the 200-level or higher. No more than one Intersession course may count for the minor. Professional writing courses (including ENG 200, 201, 203, 301, and others as designated) do not count for the minor.

TEACHER CERTIFICATION: Students seeking teacher certification in English 7–12 must complete 18 courses: ENG 190, 200, 263, 289, and 400; one survey course chosen from ENG 264, 265, or 266; and four courses at the 300-level. Also, COM 220; THR 152; and EDU 201, 207, 301, 403, 406, and 407 are required. In addition, the student must complete the admission procedure for the program, usually done in the sophomore year.

Prerequisites for all courses may be waived with the written permission of the instructor. A senior without ENG 190 wishing to take a 200-level English course also will need a written waiver.

In general, 100- and 200-level literature courses focus on developing skills in close reading and analytic writing while 300- and 400-level courses build on this foundation by asking students to engage responsibly with secondary sources or to employ sophisticated theoretical approaches. Professional and creative writing courses at the 200-level teach the fundamentals of writing in several genres while 300-level courses focus on developing a student's writing within a specific genre.

English majors contemplating graduate study in literature or writing should make their intentions known to their advisors, ideally in the sophomore or junior year. It would be wise to study one or two foreign languages through at least the second year and give thought to undertaking an independent study project or pursuing honors.

ADVANCED PLACEMENT: Students who earn a score of 4 or 5 on the College Board's test in English language and composition receive credit for ENG 111; students who earn a score of 4 or 5 on the test in English literature receive credit for ENG 190.

ENG 111 Composition

An intensive writing course that develops skills in critical thinking, academic writing, analytic reading of non-literary texts, methods of research, and proper acknowledgement and documentation of secondary sources. Students learn to shape workable topics, revise in response to comments, and produce thesis-driven essays that are organized, coherent, and grammatical and that support points with examples. A passing grade in ENG 111 satisfies the all-college skills requirement for a first-year intensive writing course. A student who fails the course must repeat it.

ENG 112 Honors Composition

An intensive writing course that develops skills in critical thinking, academic writing, analytic reading of non-literary texts, methods of research, and the proper acknowledgement and

documentation of secondary sources. Students learn to shape workable topics that incorporate multiple texts, revise in response to comments, and produce substantial thesis-driven essays that are organized, coherent, grammatical, and elegantly written and that support points with examples. A passing grade in ENG 112 satisfies the all-college skills requirement for a first-year intensive writing course. A student who fails the course must repeat it.

ENG 190

Introduction to Literature

A discussion course that introduces students to the practices of reading, discussing, and writing about literary works with emphasis on reading actively and acquiring the vocabulary and skills needed to interpret literature. The texts in each section of the course vary but represent several genres, including poetry, fiction, and drama.

Not open to seniors

ENG 200

Advanced Composition

Theoretical and practical aspects of academic writing, emphasizing both personal expressiveness and analytic skills. Students write in a variety of genres to gain experience in hypothesis development, critical thinking, research, and documentation. Readings focus on current and classical theories of idea generation, audience analysis, persuasive method, and revision strategy. This course is required for teacher certification in English.

Prerequisite: ENG 111 or 112

ENG 201

Professional Writing

Theoretical and practical aspects of writing for the workplace, emphasizing invention, problem-solving, audience adaptation, revision, document design, usability, and ethics. Students create documents such as procedure manuals, brochures, proposals, and magazine articles, and they conduct research using print and electronic sources.

Prerequisite: ENG 111 or 112

ENG 203

Editing and Print Design

Theoretical and practical aspects of preparing

documents for publication. Students study strategies for developmental editing, the principles of good prose and page design, and the history of book production. They learn to copyedit a text using standard proofreading marks, apply style sheets and templates, and use page-layout software (Adobe InDesign).

Prerequisite: ENG 111 or 112

ENG 205

Creative Writing

An intensive introductory course focusing on the craft of writing both poetry and fiction. Student writing in a variety of forms will be submitted for criticism alongside works by established writers with the overall goal of achieving a better understanding of the fundamentals of producing polished poems and short stories.

Prerequisite: ENG 190

ENG 215

Shakespeare for Everyone

An introduction to reading, understanding, and enjoying selected plays by William Shakespeare within the context of stage, film, and classroom performance.

Prerequisite: ENG 190 or senior status

ENG 250

Introduction to Genres

A discussion course that explores works in a single literary genre, emphasizing both formal and historical issues. Genres vary from year to year. Recent topics have included The Mystery, Satire, Short Fiction, and Poetry.

Prerequisite: ENG 190 or senior status

ENG 255

Special Topics in Literature

A discussion course that explores texts arranged by theme, drawn from several countries, or presented in translation. Topics vary from year to year. Recent topics have included The Literature of Work, Jane Austen, The Gothic, and Reading and Writing Nature.

Prerequisite: ENG 190 or senior status

ENG 260

World Literature

A lecture-discussion course that explores

literature produced largely by authors writing outside the Western literary tradition. Texts represent a variety of genres and historical periods and often emphasize themes of colonialism, revolution, and national identity.

Prerequisite: ENG 190 or senior status

ENG 261

Children's Literature

A discussion course that provides historical context and introduces several genres of literature for young people, including fiction, biography, fantasy, poetry, picture books, and informational texts.

Prerequisite: ENG 190 or senior status

ENG 263

British Literature 1

A lecture-discussion course that surveys major literary works and writers from the Old English, Middle English, and Early Modern periods in relation to their cultural development and historical backgrounds.

Prerequisite: ENG 190 or senior status

ENG 264

British Literature 2

A lecture-discussion course that surveys major literary works and writers from the Restoration, eighteenth century, and nineteenth century in relation to their cultural development and historical backgrounds.

Prerequisite: ENG 190 or senior status

ENG 265

American Literature 1

A lecture-discussion course that surveys significant texts and influential ideas of American literature from its beginnings through the mid-nineteenth century with emphasis on intellectual, cultural, and historical contexts.

Prerequisite: ENG 190 or senior status

ENG 266

American Literature 2

A lecture-discussion course that surveys the significant texts and influential ideas of American literature from the mid-nineteenth century through the present with emphasis on intellectual, cultural, and historical contexts.

Prerequisite: ENG 190 or senior status

ENG 270

African-American Literature

A study of selected works by African Americans. Topics vary; specific courses might be organized by genre, author, theme, or other emphasis. Recent topics have included poetry, autobiography, and fiction.

Prerequisite: ENG 190 or senior status

ENG 289

The History of the English Language

A lecture-discussion course tracing the English language's development from its Germanic roots to its contemporary status as a world language, in the process exploring the historical and cultural influences that shaped each stage of the language's development. This course is required for teacher certification in English.

Offered only in alternate years (Fall 2006 and Fall 2008)

Prerequisite: ENG 263

ENG 301

Topics in Professional Writing

A focused study of one genre within professional writing, paying particular attention to issues unique to the genre as well as issues of invention, audience, ethics, and aesthetics. In addition to analyzing published examples, students compose and revise several works in the genre. Future topics may include Science Writing and Writing for Mass Media.

Prerequisite: ENG 200, 201, or 203

ENG 305

Studies in Early English Literature

Old and Middle English works studied within their cultural and critical contexts and read, when possible, in the original. The emphasis in a given term might be chronological, generic, or thematic. Recent topics have included Dream Visions, Arthurian Literature, and Chaucer.

Prerequisites: Two 200-level literature courses

ENG 310

Studies in Renaissance Literature

Authors and texts from Skelton to Milton studied within their cultural and critical contexts. The emphasis in a given term might

be chronological, generic, or thematic. Recent topics have included Milton, Baroque and Classic Style, and Sixteenth-Century Poetry.

Prerequisites: Two 200-level literature courses

ENG 315

Studies in Shakespeare

Selected works of William Shakespeare studied within their historical and critical contexts. The emphasis in a given term might be chronological, generic, or thematic.

Prerequisites: Two 200-level literature courses

ENG 320

Studies in Restoration and Eighteenth-Century Literature

Authors and texts from Dryden to Wollstonecraft studied within their cultural and critical contexts. The emphasis in a given term might be chronological, generic, or thematic. Recent topics have included *Sense and Sensibility*, *The Rise of the Novel*, and *Town and Country*.

Prerequisites: Two 200-level literature courses

ENG 325

Studies in Early American Literature

Literature of the colonial and early national periods studied within its cultural and critical contexts. The emphasis in a given term might be chronological, generic, or thematic. Recent topics have included *The Novel*, *Early National Literature*, and *Captivity Narratives*.

Prerequisites: Two 200-level literature courses

ENG 330

Studies in Nineteenth-Century British Literature

Authors and texts from Blake to Hardy studied within their cultural and critical contexts. The emphasis in a given term might be chronological, generic, or thematic. Recent topics have included *Romanticism*, *Jane Austen*, and *The Victorian Novel*.

Prerequisites: Two 200-level literature courses

ENG 335

Studies in Nineteenth-Century American Literature

Literature of the nineteenth century studied

within its cultural and critical contexts. Specific courses might be defined by author, period, movement, genre, or theme. Recent courses have included Hawthorne and Melville, *Women Writers*, and *The American Renaissance*.

Prerequisites: Two 200-level literature courses

ENG 340

Studies in Twentieth-Century British Literature

Authors and texts from Yeats to Pinter studied within their cultural and critical contexts. The emphasis in a given term might be chronological, generic, or thematic. Recent topics have included *The Presence of the Past*, *Tom Stoppard*, and *British Modernism*.

Prerequisites: Two 200-level literature courses

ENG 341

Studies in Twentieth-Century American Literature

Literature of the twentieth century studied within its cultural and critical contexts. Specific courses might be defined by author, period, movement, genre, or theme. Recent topics have included *American Modernism*, *Southern Women Writers*, and *the Literature of War*.

Prerequisites: Two 200-level literature courses

ENG 343

Studies in African-American Literature

An advanced study of selected works by African-American authors, with attention to cultural and critical contexts. Specific courses might be defined by period, movement author, genre, or theme. Recent topics have included *The Harlem Renaissance* and *Toni Morrison*.

Prerequisites: Two 200-level literature courses

ENG 345

Criticism and Theory

An exploration of arguments, both historic and contemporary, about the purpose of art and literature, standards of judgment, the nature of the creative process, the production of meaning, and the changing relationship of author, text, context, and reader.

Prerequisites: Two 200-level literature courses

ENG 350**Studies in Form and Genre**

A study of texts in a single literary genre or in a subcategory of a genre, emphasizing formal, cultural, and critical contexts. Recent topics have included American Women Poets, Gender Fictions, and Modern Continental Drama.

Prerequisites: Two 200-level literature courses

ENG 355**Studies in Literary Perspectives**

A study of texts arranged in ways other than by period, geography, or genre; works by authors outside of Britain and the United States; and literature approached theoretically (e.g., feminist, psychological, queer, postcolonial). Recent topics have included *The Quest*, Margaret Atwood, and Postmodernism.

Prerequisites: Two 200-level literature courses

ENG 360**Advanced Creative Writing: Poetry**

A studio course in poetry writing with a scholarly component. Class time will be divided between critical consideration of work by established writers and workshop of student writings. Students will continue to develop the formal training initiated in ENG 205 with writing projects of greater complexity.

Prerequisite: ENG 205

ENG 361**Advanced Creative Writing: Fiction**

A studio course in fiction writing with a scholarly component. Class time will be divided between critical consideration of work by established writers and workshop of student writings. Students will continue to develop the formal training initiated in ENG 205 with writing projects of greater complexity.

Prerequisite: ENG 205

ENG 400**Seminar**

A capstone course on a topic that varies from term to term and that assigns the student primary responsibility, through independent reading and research, for promoting the intellectual aims of the seminar. As part of the capstone experience, each student researches, writes, and

revises a substantial, sophisticated essay and gives a public presentation based on it. Recent topics have included William Faulkner, Emily Dickinson, Eighteenth-Century Poetry and Poetics, and Holocaust Narratives.

Prerequisite: One 300-level literature course (two strongly recommended)

ENG 500, 501**Independent Study**

ENTREPRENEURIAL STUDIES

Associate Professor: Murphy (director)

The Entrepreneurial Studies Program provides students with the skills, insights, and experiences that will enable them to recognize, develop, and benefit ethically from entrepreneurial opportunities in a variety of fields based on their education in the liberal arts. The program offers both a minor and a concentration.

MINOR REQUIREMENTS: A total of six courses including ESP 101, ACC 211, one 200-level ESP course, two 300-level ESP courses, and one additional ESP course.

A student completing a minor in entrepreneurial studies will be prepared to create an entrepreneurial opportunity and possess a level of expertise in at least two functional areas. The minor is not available to students who have declared majors in the economics/business department.

CONCENTRATION REQUIREMENTS: A total of four course including ESP 101, ACC 211, one 200-level ESP course, and one 300-level ESP course.

A concentration in entrepreneurial studies is available to any W&J student regardless of major. A student completing a concentration will have knowledge of the major topics of entrepreneurship and expertise in one functional area.

ESP 101

Introduction to Entrepreneurship

This course is designed to provide students with the fundamentals of entrepreneurship. Special emphasis will be given to the culture common to entrepreneurial organizations, differentiation between ideas and opportunities, assembling financial and human resources, and gaining a general background in financial analysis and modeling necessary for the successful creation of high growth businesses.

ESP 262

Entrepreneurship and the Arts

The presentation of the arts to the public is frequently done in the context of a for-profit or

not-for-profit entrepreneurial venture. This course will first examine the functional areas of business (marketing, finance, human resource management, operations, and fundraising) as they apply to the arts world. Then the course will examine the specific applications of these functions to ventures in music, visual arts, and performing arts.

Prerequisite: ESP 101

ESP 301

Business Plan Writing

Business planning is an essential part of any entrepreneurial venture. Whether written as a tool to acquire external financing or as a guide to future internal decision making, the plan must be compelling, thorough, and well-organized. This course will provide students with the skills and experiences necessary to produce such a business plan. Students will also learn elements of layout and storytelling as they apply to effective business plan writing.

Prerequisite: ESP 101

ESP 302

Franchising, Licensing, and Distributorships

Franchising, licensing, and distributorships are different applications of a rapid expansion strategy. This course will explore the unique and sometimes adversarial relationship between the franchisee and the franchiser. Further, students will examine creating and buying a franchise from the franchiser's and the franchisee's perspectives.

Prerequisite: ESP 101

ESP 320

Entrepreneurial Marketing

This course addresses marketing from an entrepreneurial perspective. The theories and skills learned in the class are those of particular relevance to smaller, newer, more innovative, and less risk averse businesses. Topics include product positioning, branding virtual organizations, guerrilla marketing, and new product marketing.

Prerequisite: ESP 101

ESP 394**Entrepreneurial Finance**

Financing entrepreneurial ventures focuses on the primary financial elements necessary in starting, growing, and harvesting the venture—assessment of opportunity, marshaling the necessary resources, and capitalizing on the opportunity. This course will include topics such as sources of capital, venture capital, valuation techniques, deal structuring, initial public offerings, and leverage buyouts.

Prerequisite: ESP 101

ESP 497**Special Topics in Entrepreneurship**

Prerequisite: ESP 101

ENVIRONMENTAL STUDIES

Associate Professor: East (Director)
Program Faculty Members: Caffrey, Gregor,
March, Mayer, Miller, Schmidt, Shiller

The Environmental Studies Program's mission is to graduate men and women who are environmentally literate, socially responsible, and effective problem solvers and agents of change for the benefit of society, nature, and themselves. This will be achieved by equipping students with the tools, ideas, and opportunities to engage constructively with environmental and social issues spawned from the dynamics of globalization, human population, economic activity, and societal values. The program seeks to instill in each student a personal sense of environmental stewardship that includes an appreciation and understanding of sustainability from ecological and socioeconomic perspectives. Courses in the program empower students with the ability to apply appropriate technological and critical thinking skills. The program provides the opportunity to complete a major or minor, including opportunities to conduct independent research and complete an internship.

MAJOR REQUIREMENTS: A total of 10 courses, including the following five core courses that must be successfully completed:

EVS 101	Introduction to Environmental Studies
EVS 201	Environmental Issues in the Developed and Developing World
PHL 231	Environmental Ethics
BIO 320	Ecology
EVS 430	Capstone Experience

In addition, students must successfully complete five elective courses as follows:

- One course from the Natural Sciences: EVS 150 (taught from physics), EVS 330, EVS 350, EVS 270, BIO 200, BIO 245, BIO 288, BIO 416, CHM 101, CHM 340, or PSY 321.
- One course from the Social Sciences: EVS 130 (Intersession only),

EVS 260/SOC 363, EVS 280 (Intersession only), ITL 346, SOC 175, SOC 265, SOC 261, SOC 262, or POL 313 or ECN 391

The remaining three elective courses may be chosen from the lists above or from the following Humanities/Arts courses: ENG 255 (Topics: Literature and the Environment), ENG 291 (Reading and Writing Nature), HIS 274 (World Environmental History), or MUS 245

MINOR REQUIREMENTS: A total of six courses, including the following three core courses that must be successfully completed:

EVS 101	Introduction to Environmental Studies
EVS 201	Environmental Issues in the Developed and Developing World
EVS 350	Environmental Reclamation

In addition, students must successfully complete three electives as follows:

- One course from the Natural Sciences: EVS 150 (taught from Physics), EVS 330, EVS 270, BIO 200, BIO 245, BIO 288, BIO 416, CHM 101, CHM 340, or PSY 321/EVS 250.
- One course from the Social Sciences: EVS 130 (Intersession only), EVS 260/SOC 363, EVS 280 (Intersession only), ITL 346, SOC 175, SOC 265, SOC 261, SOC 262, POL 313 or ECN 391
- One course from the Humanities/Arts: ENG 255 (Topics: Literature and the Environment), ENG 291 (Reading and Writing Nature), HIS 274 (World Environmental History), or MUS 245

TEACHER CERTIFICATION: Students seeking teacher certification in environmental education K–12 must complete an academic major and complete the admission procedures and required courses in education: EDU 201, EDU 207, EDU 301, EDU 403, EDU 406, and EDU 407. In addition, students must complete the following selected courses from the

Environmental Studies Program: EVS 101, EVS 201, EVS 330, BIO 320, ECN 391, SOC 262, POL 313, and PHL 231.

EVS 100

Introductory Topics in Environmental Studies

This course is an interdisciplinary overview of major topics in environmental studies. In addition to covering basic core concepts in ecology, natural resource economics, environmental ethics and environmental policy, each term a different topic, or set of topics, will be emphasized. Such topics may include global warming, renewable energy, sustainability, human population and consumption, globalization, and biodiversity.

EVS 101

Introduction to Environmental Studies

This course introduces students to the science behind historical and contemporary topics associated with the environment. Pervasive environmental questions are addressed within the context of the natural sciences, social sciences, humanities, and arts. Through lectures, discussions, and complementary field experiences, students become familiar with major theories and practices in environmental studies. The goal/process of sustainable development is emphasized, stressing individual and community actions. Guest speakers from inside and outside the College community introduce diverse perspectives and provide insight into career opportunities. Weekly labs include field trips that provide practical experience in collecting and analyzing quantitative and qualitative data from aquatic and terrestrial ecosystems.

EVS 130

Women, Gender, and Environment in the Developing World

This course introduces students to some of the key theoretical debates and discourses surrounding gender issues in the developing world, with emphasis on natural resource utilization and conservation. Through focused readings, guided discussions and film, students critically review social, economic, political, and environmental policies and practices in Latin America, Africa, and Asia. Case studies are used to highlight and analyze factors such as sex ratios, biological and

social reproduction, division of labor, land ownership, and participation in governance.

EVS 150

Our Physical Environment

This course applies basic concepts from the physical sciences to the understanding of environmental systems. The social, political, and economic context also is considered. Laboratory experiences are used to illustrate concepts from lecture and tie material from course readings to the environment. Field work provides opportunities for measurement, sampling and analysis of the physical environment.

EVS 201

Environmental Issues in the Developed and Developing World

This course emphasizes in-depth, critical analyses of pervasive environmental issues from local, regional, national, and international perspectives. Students gain insight into strategies employed by communities, governments, and international donor organizations to reconcile economic growth with environmental conservation. Case studies and current events are introduced to facilitate seminar-type discussions and debate. This is the same course as SOC 264.

Prerequisite: EVS 101 or permission of the program director

EVS 260

Diffusion of Environmental Innovations

This course introduces students to the role being a professional “change agent” when working with new ideas and change. The focus is on ideas/changes within the environmental conservation/management arena and the attendant social consequences. Through a mixture of lectures, discussions, and case studies, students come to understand the processes by which innovations are adopted and diffused among people. By the end of the course, students come to know the methodologies for planning and implementing change and are able to anticipate and predict the consequences of planned change. This is the same course as SOC 363.

EVS 270

Ecology of the Chaparral Wildlife Management Area

The Chaparral Wildlife Management Area in south Texas contains 15,200 acres and is representative of the Rio Grande Plains Ecological Area. This three-week June field course provides students the opportunity to participate in a long-term study of the impacts of disturbance on biodiversity. Through daily, hands-on application of wildlife and vegetation management techniques, students become familiar with the diverse animal and plant communities of the Tamaulipan Biotic Province of south Texas. Students pay for round-trip airfare and food.

EVS 280

Environment and Development in East Africa

This three-week excursion to East Africa provides students with an opportunity to assess environmental projects being implemented by governmental and nongovernmental aid organizations. Emphasis is on interaction with project staff as they interface with farmers and pastoralists in the course of their daily activities. Students become familiar with rapid rural appraisal methodologies in assessing ecological and socioeconomic conditions. At least two full days are spent viewing wildlife in national parks.

Offered: Intersession of odd-numbered years

EVS 330

Watershed Management

This course introduces students to the physical, biological, and ecological processes that influence hydrology on urban, forest, and rangeland watersheds. Students gain an understanding and appreciation of the complexity of the hydrologic cycle and how it affects regional and global water supplies. Attention is given to legal and economic aspects of managing fresh water as a renewable, but limited, resource. Weekly labs consist of classroom exercises to develop relevant cartographic and computational skills as well as field experiences to physically measure and assess the condition of local watersheds.

Prerequisite: BIO 320 or EVS 201, or permission of the program director

EVS 350

Environmental Reclamation

The course explores the challenges and opportunities attendant to efforts in environmental mitigation and remediation. Lectures/discussions highlight multi-stakeholder partnerships and autogenic repair of hydrology, nutrient cycling, and energy capture. Students learn skills in risk analysis/management and benefit-cost analysis. Case study analyses of natural and human-induced environmental disasters integrate social, economic, ethical, political, and ecological issues. Special attention is given to pervasive issues in the northeastern United States, including brownfields, wetlands, abandoned mine drainage, and degraded agricultural land. Local field trips connect students with practitioners in the professional arena.

Prerequisites: EVS 101 and 201, or permission of the program director

EVS 430

Capstone Experience

This course of guided research is the culminating experience for students in the Environmental Studies Program or for students in other programs wishing to merge their major fields of study with environmental topics. The course is begun during the fall term of the senior year by preparing and presenting a research proposal and initiating the research work. During the spring term of the senior year, research work continues, culminating in a thesis presented in written and oral form. The student is co-advised by the director of the Environmental Studies Program and another chosen faculty member or professional in the student's area of research.

Prerequisites: EVS 101, 201, and 350, or permission of the program director

FRENCH

Associate Professors: Pflanze, Taylor (program coordinator)

The French major and minor programs are offered through the Department of Modern Languages. The program offers a major and a minor in French language and francophone literatures and cultures. Students learn the skills, knowledge, and qualities necessary to interact in culturally appropriate ways with francophone speakers. This is accomplished through immersing students in culturally authentic contexts both in and out of the classroom.

MAJOR REQUIREMENTS: Since the Department of Modern Languages offers advanced placement, requirements for the French major vary according to entry level. All entering freshmen with prior experience in French will receive language placement by French program faculty. Because of the varying requirements for completing a major or a minor in French, it is to the student's advantage to begin at the highest level possible, usually FRN 207 or FRN 208. However, students with very limited or no background in French will begin their studies with FRN 105 or FRN 106.

Students who begin in 207 will take eight courses, including 207, 208, 309, 310, and three 400-level courses. With prior approval, one departmental course taught in English translation or one extra-departmental course of appropriate content may count toward the major. Students who begin in 208 can complete a major with seven courses, excluding 207.

Students who begin in 309 will take six courses, including 309, 310, three 400-level courses, and at least one additional course above 200. No courses taught in English may count toward the major.

Students majoring in French are required to complete a capstone experience, which may be satisfied in one of the following ways:

1. Completion of a program of study abroad in France or another francophone country lasting no less than one full term. Following return, students will present to an audience of French faculty and students a summation of their

experience in French. This will consist of a PowerPoint presentation of about 20 minutes in which the student gives an overview and intercultural analysis of his/her experience.

2. A course-related research paper of approximately 15 pages on a substantive topic decided in conjunction with the instructor. This would normally be completed in the term preceding graduation as part of a seminar course curriculum, such as FRN 420, Topics in Francophone Cultures or FRN, 457 Topics in Francophone Literature. The instructor of the course sets specific guidelines for the paper, according to the course topic.
3. A portfolio in French, either paper or electronic, attesting to the student's achievement in all of the five national standards: Communication, Culture, Connections, Comparisons, and Communities (see Departmental Mission Statement). In addition to the portfolio project, the student will complete a Simulated Oral Proficiency Interview in French (SOPI).

In each case, capstones must be completed by the time students petition for graduation, except if completing a research paper in the term before they graduate. In this case, satisfactory progress toward completion of the project must be demonstrated by the time graduation petitions are presented to the program coordinator.

French majors are strongly advised to spend an extended period immersed in the culture(s) of the target language on an approved Intersession, summer, term- or year-long study abroad program.

French majors are permitted to double major in either German or Spanish.

MINOR REQUIREMENTS: Like the major, French minor requirements vary according to entry level. All entering freshmen with prior experience in French will receive language

placement by French program faculty. Because of the varying requirements for completing a major or a minor in French, it is to the student's advantage to begin at the highest level possible. However, students with very limited or no background in French will begin their studies with FRN 105 or FRN 106.

Students who begin in 207 will take five courses, including 207, 208, 309, 310 and one 400-level course. Students who begin in 208 must still take five courses to complete a minor.

Students who begin in 309 are not eligible for a minor.

Course requirements for the major and minor beyond 208 must be taken at W&J, with the exception of pre-approved study abroad programs.

NOTE: Students who have completed coursework at one level may not take courses at a lower level without departmental approval.

PLACEMENT PROCEDURES: All entering freshmen must receive language placement for languages with which they have prior experience. This placement will determine their beginning level of that respective language. Placement is done in consultation with the faculty member from the relevant program. Because of the varying requirements for completing a major or minor in language, it is to the student's advantage to begin at the highest level possible.

TEACHER CERTIFICATION: Students seeking teacher certification in French language K-12 must complete the admission procedures and required courses in education, in addition to completing the required courses for the French major and including FRN 260.

FRN 105, 106

Elementary French I, II

This course is an introduction for students with little or no knowledge of French. Emphasis is on basic structures and vocabulary required to communicate in a variety of routine contexts. Students learn strategies to assist in reading authentic contemporary texts for informational purposes. Cultural study focuses on the diversity of the francophone world and on fundamental aspects of daily life in France.

Taught largely in French.

Prerequisite: FRN 105, or permission of the instructor, is a prerequisite for FRN 106

FRN 207, 208

Intermediate French I, II

This course features review and extension of communication skills for students having a basic knowledge of French; mastery of basic listening, speaking, reading, and writing skills to negotiate daily living situations and to express ideas and opinions, and frequent short writing assignments. Students learn skills to read and interpret authentic texts representing a diversity of individual francophone perspectives.

Taught in French.

Prerequisites: FRN 106, or permission of the instructor, is a prerequisite for FRN 207; FRN 207, or permission of the instructor, is required for FRN 208

FRN 257

French Literature in Translation

This course concentrates on a topic that varies from year to year. Likely topics include a survey of French literature, avant-garde theatre, Molière, and utopian fictions. The topic to be dealt with will be published in the preregistration bulletin.

Taught in English.

FRN 260

Theory and Techniques of Teaching Modern Foreign Languages

This course is an introduction to the theoretical and practical aspects of teaching modern foreign languages. Students will study the history of language teaching as well as the various approaches and strategies to language instruction and their relationship to second-language acquisition theory. This course must be completed prior to student teaching.

This course satisfies the Pennsylvania Department of Education requirement that candidates for certification in foreign languages receive instruction in methods of teaching foreign languages, a subject which in the last 50 years has developed an extensive literature and repertoire of theoretical approaches.

Offered: Fall term, every other year

Prerequisites: Sophomore status and permission of the instructor

FRN 309, 310

Advanced French I, II

This course focuses on the development and application of advanced functional French language skills, with special emphasis on speaking and writing. Reinforcement and extension of sophisticated grammar concepts sufficient to allow students to speak and write at length on topics increasingly unrelated to personal experience. Reading and intercultural skills are developed through a content-based approach focusing on contemporary issues.

Taught in French

Prerequisites: FRN 208, or permission of the instructor, is a prerequisite for FRN 309; FRN 309, or permission of the instructor, is required for FRN 310

FRN 357

Introduction to Literary and Cultural Studies

An introduction to the study of French and francophone cultures through literature, students are introduced to the diversity of francophone cultural perspectives through a comparative approach to literary texts and themes in popular culture. They learn to analyze and explicate texts from multicultural perspectives, while mastering fundamental notions of style and narrative point of view.

Prerequisite: FRN 310 or permission of the instructor

FRN 371, 372

Business Communication and Culture I, II

These are two sequential courses on the topical application of advanced French language skills, with emphasis on the development of an appropriate idiom for business French contexts. Selected readings will provide cultural contexts within which business activities are likely to occur. Course emphasis is on speaking and writing.

Taught in French.

These courses count toward the international business major only.

Prerequisites: FRN 309, or permission of the

instructor, is a prerequisite for FRN 371; FRN 310, or permission of the instructor, is a prerequisite for FRN 372.

FRN 411

Cultural History of France

Designed to give a broad overview of French history, this course introduces students to some of the major political, historical, and intellectual forces that have shaped French society from Gallic times through the Fifth Republic. Readings, discussions, and student presentations center on prominent personalities and cultural achievements. Each period is illustrated by representative works of literature and the visual arts.

Prerequisite: FRN 310 or permission of the instructor

FRN 420

Topics in French and Francophone Cultures

A study of the culture of various French-speaking societies, this course offers an in-depth look at contemporary or historical phenomena that shape specific francophone perspectives. Possible topics include *Les Français à travers leurs films*, *le Québec contemporain*, and *Voix francophones*. Emphasis is given to advanced language study, composition, and oral proficiency. The topic to be dealt with will be published in the preregistration bulletin.

Prerequisite: FRN 310 or permission of the instructor

FRN 457

Topics in French and Francophone Literature

A course in reading and interpreting French literature in esthetic and cultural contexts, students read and gain an appreciation of texts from a variety of genres and historical periods. The topic, such as *écriture féminine*, *contes fantastiques*, *le Siècle des lumières*, *la Vie artistique et intellectuelle française de 1750–1900*, *fictiones et films fantastiques et utopiques*, varies from year to year and will be published in the preregistration bulletin.

Prerequisite: FRN 310 or permission of the instructor

FRN 500, 501

Independent Study

FRESHMEN FORUM

The Forum/First Year Seminar faculty is selected from professors across all the departments of the College.

FMF 199

Freshman Forum/First-Year Seminar

Required of all full-time, first-year students entering in the fall, the Freshman Forum consists of a series of readings, lectures, and other on- and off-campus experiences that introduce students to the College's liberal arts philosophy, as well as the critical thinking and discursive skills necessary to engage with a liberal arts curriculum.

Offered: Fall term only

A First-Year Seminar pilot will be conducted in Fall 2008 in anticipation of faculty approval and implementation of this format replacing the Freshman Forum for the Fall of 2009. The goals of the First-Year Seminar remain the same as Forum. However, the specific topics of the class are designed by individual instructors and will be listed separately in the Catalog Supplement published in 2009.

GENDER AND WOMEN'S STUDIES

Steering Committee:

Professors: Benze, Kyler (director)

Associate Professors: Shiller, Taylor, Wilson

Affiliated Faculty: Professors: List, Longo, Troost,
Vande Kappelle, West, Woodard

Associate Professors: Bennett, Carpenter,
DeBerry, East, Fleury, Hannon, Hyland, Kline,
Lambertson, Malinak, Medley, Mayer,
Pettersen, Swift

Assistant Professors: Gottschall, Fee, Grime,
Maresh, McEvoy, Robbins, Shaughnessy

The gender and women's studies minor is an interdisciplinary course of study in the liberal arts that centers on issues of gender, sexuality, and the ways gender and sexuality shape human experience through history and across cultures.

MINOR REQUIREMENTS: Six courses are required for the completion of the minor. They are GWS 100: Introduction to Gender and Women's Studies; GWS 300: Theories of Gender; and four additional courses approved by the Gender and Women's Studies Steering Committee. These four elective courses must represent at least two academic divisions (arts, humanities, social sciences, natural sciences). With approval, a student may complete an internship or independent study as one of these courses—in fact, this option is encouraged. Also with approval, a student may take, as a gender and women's studies elective, a course not normally approved (e.g., medieval civilization or social psychology) in which the student arranges to focus his or her own work on gender and women's studies issues.

GWS 100

Introduction to Gender and Women's Studies

This is an interdisciplinary course that will introduce students to the field of gender and women's studies. Students will consider both female and male experience and will study the concept of gender as a critical category informed by race, class, ethnicity, sexuality, and culture. Students will gain a clearer understanding of how individuals in various

cultures learn, negotiate, and accept or resist their gender roles, as well as the significance of gender historically and in contemporary life.

GWS 300

Theories of Gender

An introduction to major theoretical positions in gender studies and feminism. Students will become familiar with the historical background that has shaped contemporary discourse about gender and sexual identity. Readings will ask students to consider the impact of feminist theory; gay, lesbian, and transgender studies; and multiculturalism on our understanding of gender.

Prerequisite: GWS 100

GWS 500, 501

Independent Study

GERMAN

Associate Professor: Shaughnessy (director)
Assistant Professor: Moser
Instructor: Altmeyer

The German major and minor programs are offered through the Department of Modern Languages.

The German program at W&J is a culturally centered program designed to teach students about the language, the people, and history of German-speaking countries. Students will learn to effectively use the German language and knowledge of the culture in contemporary society. Students of German are encouraged to use the liberal arts tradition to go beyond their German classes and demonstrate interdisciplinary skills as a core part of the course of study.

The German program is a proficiency-based language program. This means that at various levels (100, 200, 300, and 400) students must demonstrate standards-based abilities in German. Classes at the 100 level are elementary in nature and focus on everyday interactions, basic exchanges of information, and a functional notion of the culture.

Classes at the 200 level are intermediate in nature and require students to be able to understand a wider variety of spoken German. Students are introduced to literature and are asked to make connections between disciplines. Classes at the 300 and 400 levels are designated as “advanced level.” These classes require students to express themselves verbally and in written form on a wide variety of cultural and practical topics. Additionally, these classes are taught exclusively in German.

MAJOR REQUIREMENTS: Students must take six advanced level classes, three of which must be at the 400 level.

For the major, students must complete an approved capstone project in conjunction with an electronic portfolio. Possible capstone experiences include a study abroad experience of at least one term; a special project associated with a 400-level course or independent study; or a language intensive internship.

German majors are permitted to double major in French or Spanish.

MINOR REQUIREMENTS: Students must take three advanced level classes, one of which must be at the 400 level.

NOTE: Students who begin in 309 are not eligible for a minor. Course requirements for the major and minor beyond 208 must be taken at W&J, with the exception of preapproved study abroad programs.

Students who have completed coursework at one level may not take courses at a lower level without departmental approval

PLACEMENT PROCEDURES: All students taking a language at W&J must take the student information questionnaire prior to enrollment in that language. Students with a background in this language must also complete the computerized adaptive placement exam (CAPE). In-coming freshmen will usually take the exam prior to registration during summer orientation, but the exam may be administered at any time. The results of the questionnaire and exam will usually determine the level at which a student will begin a course of study in the language. A student who falls at the high or low end of a scoring range may be placed higher or lower than the course indicated, depending on the number of years of language the student has had. Placement in these situations is done in consultation with a faculty member from the relevant program. Because of the varying requirements for completing a major or minor in language, it is to the student’s advantage to begin at the highest level possible.

TEACHER CERTIFICATION: Students seeking teacher certification in German language K–12 must complete the admission procedures and required courses in education, in addition to completing the required courses for the German major, including GER 260.

STUDY ABROAD: The German program offers three programs for students to study abroad at various levels. Courses are offered as a part of the standard program through W&J. All credits and grades transfer automatically.

- PCIC in Cologne*

This Fall term program offers students in any major who have completed at least one year of German the opportunity to experience Germany to the fullest —its people, culture, and above all, the native language. Courses are offered in English and German and are tailored to American students. Cologne is Germany's fourth largest city and located on the Rhine River with easy rail connections to every major city in Germany and Europe. Interested students should contact the German program coordinator.
- W&J in Munich*

This 12-month program through the University of Munich and Lewis and Clark College is intended for juniors who have completed at least four terms of German at W&J. This program is the ideal way to solidify a student's knowledge of German and take part in a life changing experience fully immersed in the German culture. Considered to be one of the best study abroad programs in the United States, this program offers small, liberal arts-style classes in Munich, Germany. This program is intended for German majors and science majors with appropriate language ability. Interested students should contact the German program coordinator.
- W&J-UniKöln Exchange Program*

The University of Cologne, Germany, and W&J have an established upper-level, two-way exchange program. Advanced-level students in German can directly enroll at this exciting, metropolitan University in the heart of Germany. Students typically live in a German dormitory with other German students and take regular courses at the University in German literature, English literature, or education. This program is ideal as a capstone experience for juniors or seniors seeking additional academic opportunities and independent studies. Interested students should contact the German program coordinator.

GER 105, 106

Elementary German I, II

An introduction for students with little or no

knowledge of German, this course emphasizes fundamentals of grammar, acquisition of vocabulary, listening comprehension, basic oral expression, elementary writing, and short readings on topics pertaining to Germanic culture.

Taught largely in German.

Prerequisite: GER 105, or permission of the instructor, is a prerequisite for 106

GER 207, 208

Intermediate German I, II

An intensive review with frequent practice in oral expression and listening comprehension, this course places special emphasis on developing reading and writing skills via encounters with authentic texts and videos.

Taught primarily in German.

Prerequisites: GER 106, or permission of the instructor, is a prerequisite for 207; GER 207, or permission of the instructor, is a prerequisite for 208

GER 235

Introduction to the German-Speaking World

This course introduces students to the culture, history, and life of the people who live in the German-speaking countries of Europe including modern day Germany, Austria, and Switzerland. Students learn about the long and diverse history of these people while simultaneously learning about the cultural aspects that shaped life in these regions. Through film, text, audio, and images, students will learn about the art, literature, history, and linguistic aspects of life in German-speaking Europe from the early beginnings to the modern day.

This class is taught in English and does not fulfill the language requirement.

GER 257

German Literature in Translation

This course is a study of a special topic, such as nineteenth-century German literature, the modern German novel, or the work of a particular author. The topic to be studied will be announced during preregistration.

This course is taught in English and does not fulfill the language requirement.

Prerequisite: ENG 111, 112, or permission of the instructor

GER 260**Theory and Techniques of Teaching Modern Foreign Languages**

This course is an introduction to the theoretical and practical aspects of teaching modern foreign languages. Students will study the history of language teaching as well as the various approaches and strategies to language instruction and their relationship to second-language acquisition theory. This course is taught in English and must be completed prior to student teaching.

This course satisfies the Pennsylvania Department of Education requirement that candidates for certification in foreign languages receive instruction in methods of teaching foreign languages, a subject which in the last 50 years has developed an extensive literature and repertoire of theoretical approaches.

Offered: Fall term, every other year

Prerequisites: Sophomore status and permission of the instructor

GER 289**German Film**

This course will introduce students to trends and examples from the German cinematic tradition. Students will view and analyze various film genres starting with Weimar cinema and continuing through present day German language films. This course will present films within their historical and cultural context. Representative films will be chosen for each period including Weimar Republic, National Socialism, zero hour, economic miracle, sixties, seventies, eighties, nineties, and post unification.

This course is taught in English and does not fulfill the language requirement.

GER 309, 310**Advanced German I, II**

A course on the development and application of advanced German language skills, with special emphasis on speaking and writing. A variety of texts, videos, Web sites, etc., serve as thematic points of departure for daily discussions, frequent writing assignments, and oral presentations. The course also includes systematic review of sophisticated grammar topics. GER 309 is generally offered in the Fall term; GER 310 in the Spring term.

Taught in German.

Prerequisites: GER 208, or permission of the instructor, is a prerequisite for 309; GER 309 is a prerequisite for 310.

GER 371, 372**German Business Communication and Culture I, II**

Two sequential courses on the topical application of advanced German language skills, with emphasis on the development of an appropriate idiom for business, German contexts, within which business activities are likely to occur. The emphasis of this course is on speaking and writing in a professional context.

Taught in German.

These courses count toward the international business major only.

Prerequisites: GER 309, or permission of instructor, is a prerequisite for GER 371; GER 371, or permission of the instructor, is a prerequisite for GER 372

GER 485**Cultural History of Germany**

A survey of German cultural and intellectual history from the Middle Ages to the twentieth century, with an emphasis on art, literature, philosophy, politics, religion, and science, this course features discussions, oral presentations, and compositions as well as review of advanced grammar as necessary.

Offered: in the Fall term of odd-numbered years

Taught in German.

Prerequisite: GER 310 or permission of the instructor

GER 486**Topics in German Culture**

This course focuses on German cultural topics, which vary from year to year, with emphasis on nonliterary aspects of culture. Possible topics include German-American, film history, art movements, or how a variety of cultural media reveal the spirit of a particular period of German history. The topic or topics to be studied in a given session will be announced during preregistration.

Offered: in the Spring term of even-numbered years

Taught in German

Prerequisite: GER 310 or permission of the instructor

GER 455

Survey of German Literature

A course designed to give students a broad understanding of German literary history. The works examined will span multiple literary movements to reveal the evolution of literary trends and to demonstrate how writers of a period engage in dialog with their artistic forebears. The period to be studied in a given session will be announced during preregistration.

Offered: Fall term of even-numbered years

Taught in German.

Prerequisite: GER 310 or permission of the instructor

GER 456

Topics in German Literature

Focused study of a special topic in literature varying from year to year. Likely concentrations include genre studies, in-depth analysis of a seminal work, or the work of a particular author. The topic to be studied in a given session will be announced in the preregistration schedule.

Offered: Spring term of odd-numbered years

Taught in German.

Prerequisite: GER 310 or permission of the instructor

GER 500, 501

Independent Study

GRAPHIC DESIGN

Associate Professors: Fee (ITL coordinator),
Schmidt (art coordinator)

Graphic design is the study and implementation of the theory and production techniques pertaining to graphic images of any form. Theories of graphic design encompass the realms of art, design, and visual culture. Production techniques involve such activities as drawing, illustration, and the production of digital imagery. Students who complete the graphic design concentration will learn to develop sophisticated imagery that is reflective of their personal style. These students can then participate in the fields of art, graphic design, illustration, multimedia production, and Web development, among others.

To complete this concentration, a student must complete the following courses: ART 108, ART 112, ITL 271, ITL 361, and ART 425.

This course of study is available to all students regardless of major.

HEALTH PROFESSIONS PROGRAM

Associate Professor: Klitz (Committee on Health Professions chair)

Students preparing for admission to graduate schools in the health professions may elect to major in any discipline. If they wish to be recommended to professional schools by the Committee on Health Professions, they should register with the Committee on Health Professions as early as possible, and maintain that registration during their undergraduate preparation. The committee provides recommendations for applicants to health-professional schools in the fields of allopathic medicine, osteopathic medicine, dental medicine, veterinary medicine, podiatric medicine, optometry, physical therapy, occupational therapy, or physician assistant studies. To secure a recommendation from the committee, in addition to the requirements of a major, a student must successfully complete the 10 to 13 courses in biology, chemistry, mathematics, physics, English, psychology, or sociology as designated for their chosen career goals in the Student Pre-Health Handbook. This document is available from the Committee on Health Professions.

The College has agreements regarding admission of qualified students to the Temple University School of Medicine; the Drexel University School of Physical Therapy; the Chatham University School of Physical Therapy; the Pennsylvania College of Optometry; the Saint Francis University Department of Physician Assistant Sciences; the Chatham University Program of Master of Physician Assistant Studies; and the Temple University and Ohio Colleges of Podiatric Medicine. Details are available in the Student Pre-Health Handbook.

HISTORY

Professors: Gormly (chair), Dodge, Mainwaring,
List

Associate Professor: Caffrey

The Department of History is a supportive and intellectually invigorating academic home for students who want to develop the knowledge and skills needed to appreciate the past and thrive in the future. The department offers more than 40 courses, with particular strengths in American, European, and East Asian history. Majors and minors complete requirements that are distributed in a way that ensures both depth and breadth.

MAJOR REQUIREMENTS: 10 courses, including at least two from European history; two from American history; one from a non-U.S. or European course, and at least four from courses numbered above 300. All majors are strongly urged to complete the second-year course in a foreign language. All seniors must complete a capstone project prior to the end of their final term. Students should consult the history department chair for more information on the capstone requirement.

MINOR REQUIREMENTS: Six courses, as follows: two courses in American history; two courses in European history; one course from a non-U.S. or European course; and two courses above 300. No more than two courses at the 100 level may be counted toward the minor.

CITIZENSHIP EDUCATION

CERTIFICATION: Students seeking teacher certification in citizenship education must complete the admission procedures and the required courses in education and complete the required courses for a major in history. In addition, the student must complete the following courses in history, economics, political science, and geography: HIS 201, 204, 206, 208, and 231; ECN 101 and 102; POL 110 and 111; and SOC 261 (geography). Students planning to seek a teaching job are strongly urged by the Department of Education to major in history with a certification in social studies.

SOCIAL STUDIES CERTIFICATION:

Students seeking teacher certification in social studies must complete the admission procedures and the required courses in education and complete the required courses for a major in history. In addition, the student must complete the following courses in history, economics, political science, psychology, sociology, and geography: HIS 201, 204, 206, 208, and 231; ECN 102; POL 111; PSY 101; and SOC 101, 175 (anthropology), and 261 (geography).

HIS 101

European Civilization I

This course is a survey of the development of European civilization from the fourth century A.D. to the Reformation.

HIS 101, 102, and 151 are for freshmen and sophomores only.

HIS 102

European Civilization II

This course is a survey of the development of European civilization from the sixteenth century to the present.

HIS 101, 102, and 151 are for freshmen and sophomores only.

HIS 151

Asian Heritages

An introduction to the histories and cultures of China, Japan, Korea, Vietnam, India, and Tibet through the exploration of such themes as colonization and imperialism, modernization efforts undertaken to meet the challenges posed by the West, family relations, farming, food, literature, painting, Buddhism, Asian immigration to the U.S., and contemporary popular culture. Emphasis will be on the middle of the nineteenth century to the present. No prior knowledge of Asia is expected.

HIS 101, 102, and 151 are for freshmen and sophomores only.

HIS 201

Colonial America and the American Revolution

This course is a study of America in the seventeenth and eighteenth centuries.

HIS 204**Nineteenth-Century America**

This course is a study of American development from the early republic to World War I.

HIS 206**Twentieth-Century America**

This course is an extensive study of the events and historiography of modern American history from the Spanish-American War to the present.

HIS 210**U.S. Economic History**

A study of the sources and consequences of economic and social change from colonial to recent times, this course is the same as ECN 306. However, students who enroll for credit in economics shall complete an additional research assignment in economic history.

HIS 215**United States Diplomatic History from 1898 to the Present**

This course is an intensive study of the events and historiography of American foreign relations from the Spanish-American War to the present.

HIS 220**Ancient Civilization**

A study of ancient Greek and Roman society and culture, course topics include the rise of Greek city-states, the development of a distinctive Greek intellectual and political culture, the destruction of Greek political and economic dominance, the rise and expansion of Roman political and military power, its influence on surrounding peoples, the rise of Christianity, and the military and social collapse of the Roman Empire.

HIS 222**Medieval Civilization**

The development of Europe from the Age of Charlemagne (ca. 800 A.D.) to the fourteenth-century crisis emphasizing the emergence of a distinctly Western culture and society, the evolution from feudal to central monarchies, and the conflict between papacy and monarchy.

HIS 224**Europe from Absolutism to Revolution**

The study of European history from 1648 to 1815 with special emphasis on the development of the bureaucratic state, the development of inter-state relations, the intellectual transformation of the eighteenth century, and the crisis of the old regime culminating in the era of the French Revolution.

HIS 228**Nineteenth-Century Europe**

The chronological span is from the Congress of Vienna to the outbreak of World War I. The analytical focus of the course is the development of the concepts of political and social liberalism with an emphasis on the role of nationalism.

HIS 230**Twentieth-Century Europe, 1919–1945**

From the end of World War I and the Paris Peace Conference to the end of World War II, specific themes and topics that will be considered during this course are the collapse of the Romanov, Hohenzollern, Hapsburg, and Ottoman Empires; the ideal and reality of national self-determination; the emergence of the Soviet state; the tragedy of the Weimar Republic; the rise of the dictators; aggression and appeasement; and World War II.

HIS 231**Post-World War II and Contemporary European History: From the End of World War II to the Present**

The course will examine the two major themes in post-World War II Europe—the Cold War and European integration, which began with the European Coal and Steel Community (ECSC) in 1950 and has transformed itself into the European Union (EU) today. The Cold War began and ended within the period, but the integrative process is ongoing.

HIS 235**History of England I**

This course is an introduction to English history from the first settlements in Britain to 1714.

HIS 236

History of England II

This course is an introduction to English history from 1714 to the present.

HIS 235 is not a prerequisite for HIS 236.

HIS 237

Modern German History, 1700–1890

From the establishment of the Kingdom of Prussia to the dismissal of Otto von Bismarck as Chancellor of the Second Reich, this course places special emphasis on the struggle for the domination of Germany between the Austrian Habsburgs and the Prussian Hohenzollerns up to the Austro-Prussian War in 1866, the Bismarckian policy of “blood and iron,” and the Prussianization of Germany in the Second Reich.

HIS 238

Germany’s Unity and Fragmentation, 1890 to the Present

From the dismissal of Bismarck as chancellor to the reunification of Germany in 1990 and contemporary Germany’s role in the European Union, this course’s focus includes the Second Reich’s responsibility for World War I, the inherent weaknesses of the Weimar Republic, the Third Reich as an attempt to de-Prussianize Germany, and the division of the German nation into the German Federal Republic and the German Democratic Republic.

HIS 237 is not a prerequisite for HIS 238.

HIS 239

Kiev, Muscovy, and Russia

A survey of Russian history from the so-called “coming of the Varangians” in the ninth century and the subsequent Kievan period, the Mongol domination and the rise of Muscovy, Petrine Russia, to 1894. Special attention is given to an analysis of “official nationality,” the “Great Reforms,” and the early revolutionary movements in the nineteenth century.

HIS 240

Russia, the Soviet Union, and the CIS

The chronological parameters of this course are from the reign of Tsar Nicholas II to the formation of the Commonwealth of Independent States (CIS). Special attention is given to the

1905–1917 period, including the February and October Revolutions, Stalin’s Russia, the attempted reforms of Khrushchev and Gorbachev, the August 1991 Putsch, and the era of Boris Yeltsin, including the “October Days” of 1993, the Duma elections, and constitutional referendum in December 1993.

HIS 239 is not a prerequisite for HIS 240.

HIS 250

History of Modern Japan

This course examines Japanese culture and history from the unification of Japan and the Tokugawa Shogunate to the present. The course will examine the political, social, and cultural development of modern Japan and Japan’s role in world affairs.

HIS 254

Ancient China

This course is an examination of social and political developments in China from the pre-historic origins of Chinese civilization through the eve of China’s conquest in the mid-seventeenth century by a coalition led by Manchus.

HIS 255

History of Modern China

Social and political developments in China from mid-seventeenth century to the present are studied. Emphasis is on the interactions between culture and modernization efforts.

HIS 260

Latin American History to Independence

This course is a survey history of the pre-colonial and colonial period of the area known as Latin America through the Wars of Independence.

HIS 261

Latin American History from Independence to the Present

A survey history of Latin America from Independence in the early nineteenth century to the present, this course has special emphasis on the national histories of Argentina, Chile, and Mexico.

HIS 270**Topics in Historical Studies**

This course will examine selected topics in history. Topics will vary according to available faculty and student interest. This course may be repeated for credit if the topic of the course differs.

History 274**World Environmental History**

This course is a thematically and geographically comprehensive survey of world environmental history from the dawn of agriculture to the present. The course will investigate how humans have affected natural environments at the local, regional, and global levels, why those effects occurred, and how such changes have affected humans and other life forms. No prior study of environmental science or world history is necessary.

HIS 302**Europe Transformed: Renaissance and Reformation, 1450–1650**

This course is a study of the cultural and religious transformation of Europe focusing on the emergence of humanism, the rise of Protestantism, and the resurgence of Catholicism.

HIS 304**History of Modern Eastern Europe**

This course will focus on the history of Eastern Europe from 1648 to the present with special attention to the themes of big power domination and the rise of nationalism.

HIS 308**Tudor-Stuart England**

Aspects of English governance and society between 1485 and 1689 will be studied, including the English Reformation and the establishment of the Anglican Church, the emergence of the modern English state, the revolutions of the seventeenth century, and the English scientific revolution.

HIS 310**Legal History of England and America**

This course is a seminar approach to the study of the legal heritage of England and the United States, from the medieval period to the present.

HIS 321**Historical and Contemporary Moscow**

A two-week course in late May/early June at the International University of Moscow, an education institution with which Washington & Jefferson College has a formal agreement. The course will consist of 24 contact hours in Russian language taught by IUM Russian language instructors and six hours of formal lectures in English presented by specialists in economics, culture, politics, and history. Sightseeing will include the Kremlin; Park Pobeda (Victory Park), commemorating the Soviet victory over Nazi Germany in World War II; the tomb of the Unknown Soldier in the Alexander Gardens, adjacent to the Kremlin; Novodevichy Cemetery and Convent; Tretyakov Gallery of Russian Art; the State Duma; the Bolshoi Theater; and an overnight to the ancient cities of Vladimir and Suzdal. This is the same course as RUS 212.

Students who register for HIS 312 must select a historical and/or cultural topic and have it approved by the instructor before the course begins. The student will do some reading and research on this topic before departure. Following completion of the Moscow portion of the course, the student will research and write a paper of 15 to 20 pages on that topic. The paper will be submitted six weeks after returning from Russia.

NOTE: HIS 321/RUS 212 is treated as if it was a January intersession course, except that it occurs at the end of the academic year. In order to comply with the billing procedures of the College and not be charged extra for this course, the student must not exceed 36 credits, normally nine courses during the academic year. It is recommended that the student actually register for the course during the fall preregistration for Intersession and spring of the academic year.

HIS 315**The Intellectual History of Modern Europe**

This course is a survey of European thought from the Enlightenment to the present.

Prerequisite: One year of European history or permission of the instructor

HIS 320**Modern European Diplomatic History**

A survey of European international relations from the Congress of Vienna (1815) to the Helsinki Final Act (1975), this course gives special attention to whether a “balance of power” or “consensus of power” existed from 1815 to the Crimean War; the evolution of contentious alliance systems (1870s to 1918); the failure of collective security in the interwar period; and the Cold War.

HIS 331**Old South**

A study of the American south from colonial times to the Civil War, course topics include the origins of the plantation economy, of racism, and of slavery; the nature of class and caste relations; political conflict within the south; sectional conflict within the nation; and the outbreak of the Civil War.

Prerequisite: HIS 201 or 202, or permission of the instructor

HIS 332**The Civil War and its Aftermath, 1861–1900**

This course is a study of the political, social, and economic dimensions of the sectional crisis and its consequences.

Prerequisite: HIS 202 or permission of the instructor

HIS 333**Constitutional History of the United States**

This course is a survey of the constitutional problems arising from the development of the United States, including constitutional origins during the colonial period.

HIS 334**Jacksonian America**

This course is a study of social and political change from the Federalist Era to 1848.

Prerequisite: HIS 202 or permission of the instructor

HIS 335**The Gilded Age, 1870–1918**

A study of American responses to the wealth, poverty, and new social problems created as part

of industrial growth, course topics include labor, immigration, urbanization, bureaucratization, art, political culture, progressivism, and the anomalous position of the American.

Prerequisite: HIS 202 or 204, or permission of the instructor

HIS 336**Recent American History, 1919–Present**

A seminar approach to an intensive study of American history from World War I to the present with emphasis on domestic and foreign affairs and their relationship to and effect on each other. This course may be repeated for credit if the topic of the course differs.

Prerequisite: HIS 204 or permission of the instructor

HIS 340**The Middle East**

The chronological parameters of this course are from the end of the Ottoman Empire to the present. Special attention is given to the Kemalist national revolution in Turkey, the building of the Zionist state in Palestine, the creation of the state of Israel, the Egyptian revolution under Nasser, the Iranian Fundamentalist Revolution, and the Iran-Iraq and Persian Gulf wars.

HIS 350**Contemporary East Asia**

This course will examine topics in the history of China, Korea, Japan, or Vietnam during the past century. This course may be repeated for credit if the topic of the course differs.

HIS 352**China Through Literature**

This course will deepen understanding of Chinese society past and present through the examination of novels, short stories, and other forms of literature either written in or translated into English. For instance, students may explore the pleasures and tensions of eighteenth-century elite culture through Cao Zueqin’s *Dream of the Red Chamber*, the perilous excitement of 1930s Shanghai through Mao Dun’s *Midnight*, and the rhythms of contemporary urban society through Qui Xialolong’s *Death of a Red Heroine*. Emphasis is on the eighteenth century through the present.

Prerequisite: HIS 151, 255, or 350, or permission of instructor

HIS 355**Global Buddhism**

This course is an examination of the philosophical and religious transformations of Buddhism as it was spread from India to other parts of the world. Particular emphasis is placed on early Buddhist beliefs and practices in India, and on later expressions in Tibet, China, Japan, and the contemporary United States.

HIS 410**Special Topics in Historical Studies**

Intensive study and research of selected topics in history—Topics are varied according to availability to faculty and student interest. This course may be repeated for credit if the topic of the course differs.

Prerequisite: Two previous history courses or permission of instructor

HIS 500, 501**Independent Study**

HUMAN RESOURCE MANAGEMENT

Professor: Myers (psychology coordinator)
Assistant Professor: Litchfield (business coordinator)

The Human Resource Management Emphasis is open to majors in business administration or psychology who wish to prepare themselves for the study of human resource management in graduate school and/or pursue a career in human resource management.

To complete this program, a student must complete the following courses: PSY 101, 102, 225; one from 295, 303, or 392; and one from 235, 245, 324, or 330; ECN 101; ACC 211, 212; and BUS 301, 319, and 350. It is also strongly recommended that the student complete an internship in an industrial/organizational setting.

Students interested in this program are advised to contact the chair of either the Department of Economics or the Department of Psychology.

INTERDISCIPLINARY COURSES

SCI 100

Introduction to Science

This team-taught, topic-based course introduces students to the study of science in a relevant area such as nutrition, forensics, oceanography, environmental science, disease, or artistic perception. The course will provide an interdisciplinary approach for students majoring in fields other than the sciences. The laboratory component is designed to introduce students to the scientific method as applied to the topic of interest.

INFORMATION TECHNOLOGY LEADERSHIP

Associate Professors: Fee (chair), Hannon
Assistant Professors: Holland-Minkley, North

The Information Technology Leadership Program has the dual mission of preparing students to take a leadership role in the area of information technology independent of the career or graduate education paths they pursue and of advancing the uses of information technology across the Washington & Jefferson curriculum. Designed to be an interdisciplinary program, the ITL curriculum comprises aspects of history, sociology, psychology, communication, art, design, science, and mathematics. The program stresses problem solving and oral and written communication skills while addressing issues in computer literacy, systems design, visual culture, interface design, and computer security.

MAJOR REQUIREMENTS: A minimum of 10 courses, including ITL 100, 102, 112, 301, and 400 (the capstone experience), and at least three courses in one area of emphasis: information systems, new media technologies, or data discovery. Two of these three emphasis courses must be at the 300 level or above. At least one of the remaining two courses also must be at the 300 level or above. Majors are strongly encouraged to pursue at least one professional internship during their course of study.

MINOR REQUIREMENTS: A minimum of six courses, including ITL 100; either 102 or 112; one of 211, 241, or 271; and three others, at least two of which must be at the 300 level or above.

The department also collaborates with the Department of Art on a graphic design concentration. Please refer to the catalog listing for further information on this course of study.

ITL EMPHASIS DESCRIPTIONS

Information Systems

Students in the information systems emphasis focus on how we collect, represent, and work with diverse information in the presence of information technology. They are encouraged to

ask themselves how technology informs information usage and problem-solving processes. This question often asks them to reflect on their own innate information processing capabilities and consider what can be learned from them. They also are asked to consider how technology affects the security and privacy of information and the need to integrate technology into society in a manner consistent with its underlying principles and values. In conjunction with the core courses in the ITL major, this emphasis will prepare students to take a leading role in the use of enterprise-wide information technology or to pursue graduate education in the fields of computer information systems or other information technology-related fields.

New Media Technologies

Students in the new media emphasis focus on how people communicate meaning through innovative contexts capitalizing on various new media, including static and multimedia web documents, digital images, and digital video and audio. Visual literacy and creative problem solving are stressed; students are asked to reflect on their consumption and critical understanding of new media content. A wide range of fields are drawn from, including graphic design, educational technology, media studies, photography, human-computer interaction, film studies, electronic publishing, project management, and multimedia production. In conjunction with the core courses in the ITL major, this emphasis will prepare students to take a leading role in the planning, development, evaluation and implementation of new media productions, or to pursue graduate education in the fields of graphic design, educational technology, communication, or other information technology-related fields.

Data Discovery

Students in the data discovery emphasis will focus on the ways that computers can help humans understand complex social behaviors or scientific phenomena. In addition to learning how to acquire data for digital manipulation, students will learn how to access large datasets for specific purposes and to convert that data into human-useable form. Students will be

encouraged to connect these skills to interests in a related minor or double major, using the data discovery techniques of data management, analysis, mining, or geographic information systems to complement their broader educational objectives. In conjunction with the core courses in the ITL major, this emphasis will provide the technology preparation necessary for careers in such fields as market research, business analysis and data mining, spatial analysis, and concept development. This emphasis is especially suited for students with a minor or a double major in one of the sciences or social sciences or for students considering graduate education in one of those fields.

ITL 100

Information Technology & Society

A survey of information technology innovations that changed society in fundamental ways within the context of a more broadly defined discussion of the “history of technology.” Topics within the history of information technology include the development of the integrated circuit, the personal computer, the Internet and the World Wide Web, etc. Topics within the history of technology (broadly defined) include ethical, legal, environmental, and feminist issues involved in the development and implementation of new technologies. The course entails a combination of historical overview and a number of individual case studies of technology development and implementation. The latter will focus on issues of leadership, the identification and solution of complex problems, and the unexpected consequences of technological advances.

ITL 102

Introduction to Programming

This course is an introduction to object-oriented programming with an emphasis on program design, problem solving, methodology, and algorithms. Students will master the fundamental concepts and structures common to programming.

ITL 112

Database Concepts

An overview of the role of databases within a variety of academic, business, and governmental organizations, and an introduction to database design and management. Students will be required to create databases related to their

major fields or areas of academic interest using both small business and enterprise-class database management systems.

ITL 202

Advanced Programming

A second-level course in object-oriented programming, this course builds upon and extends the material presented in ITL 102. Topics include the further exploration of classes and objects, inheritance, reusability, input/output methods, and database interaction.

Prerequisite: ITL 102

ITL 204

Object-Oriented Applications with Java

A second-level course using the programming skills learned in ITL 102 to build practical, problem-based applications based on libraries of existing methods, the focus of this course will be on program development and hands-on programming, with particular focus on input/output, networking, multimedia applications, and databases.

Prerequisite: ITL 102

ITL 211

Fundamentals of Information Systems

This course is an introduction to information systems and their foundational technologies. Topics include surveys of hardware, operating systems, database, and networked computing concepts, as well as special topics in information systems including computation for the Internet and World Wide Web, distributed computing, electronic commerce systems, artificial intelligence, decision support systems, security technologies, and information systems design. Themes common to each of these topics include security and privacy issues, ethics, and cost/benefit analyses.

Information systems emphasis

ITL 241

Introduction to Data Mining

An introduction to the concepts and practices involved in data mining, this course addresses data mining activities in three phases: data preparation (or preprocessing), mining techniques, and classification and analysis. These concepts will be taught using industry-standard

tools for data mining activities. Projects and assignments will be completed as students organize and mine data sets taken from various disciplines of study including marketing, finance, and natural and social sciences.

Data discovery emphasis

Prerequisite: ITL 112

ITL 271

Preparing New Media

An introduction to electronic media theory and practice, this course actively engages in the development and application of new media. Students will create electronic media and study the design issues regarding their implementation. Visual literacy and communication will form the basis of the theoretical explorations of this course.

New media technologies emphasis

ITL 297

Topics in Information Technology Leadership

This course is an introductory survey of a selected topic in information technology, varying from year to year. Specific topic and prerequisites will be announced in the preregistration bulletin. This course includes significant writing and presentation requirements for all students. Course can be retaken for credit when topics are different.

ITL 301

Human-Computer Interaction

A survey of human-computer interaction research and an introduction to issues in cognitive psychology useful in the design of computing systems for human use. Particular emphasis is placed on developing a knowledge of the basic psychological phenomena of human cognition, memory, problem solving, and language, and on how those processes relate to and condition the interaction between humans and interactive computing systems.

Prerequisites: ITL 102 and PSY 101

ITL 310

Systems Analysis

An overview of the concepts, procedures, and tools necessary for identifying, analyzing, modeling, pricing, and presenting computer-based

information systems, the primary objective of this course is to develop skills necessary to conduct the analysis side of the systems development cycle. This course also stresses literature on current and emerging technologies and managerial issues. Students will use modern CASE tools to analyze, model, and price information systems. Students will additionally develop and submit oral presentations and written reports concerning information system projects. Students will learn methods and skills for understanding and evaluating technologies for use in their careers as leaders in the application of information technology.

Information systems emphasis

Prerequisite: ITL 102

ITL 330

Computation and Cognition

A survey of the fields of artificial intelligence and cognitive studies with particular attention given to the ability of computers to mimic, rival, and occasionally exceed humans in the performance of “intelligent” activities. This course examines the central role of information in producing intelligent behavior and contrasts the information processing activities of cognitive versus computation-based systems. Course readings will cover such topics as current uses of intelligent computation systems and the technological, psychological, and linguistic issues related to the construction of computation-based intelligent systems.

Information systems emphasis

Prerequisite: ITL 102

ITL 331

Networking Foundations

A project-based course on networked computing environments, students develop foundational knowledge and skills required to design, administer, secure, and maintain a large local area network. Students will employ network modeling software to design and analyze networking systems, and develop procedures for troubleshooting and optimizing them.

Information systems emphasis

Prerequisite: ITL 102

ITL 335**Information Security Policy and Practice**

This course is an in-depth examination of best practices for securing and protecting modern information systems. This course is designed to provide students with the foundations of information security policies, procedures, and standards. The course covers the principles of information security policy development, and presents a number of complementary topics, including system inspection; preemptive and reactive protections; and legal, social, and privacy issues related to information management.

Information systems emphasis

Prerequisite: ITL 102

ITL 346**Geographic Information Systems**

A survey course in Geographic Information Systems (GIS) designed to provide functional knowledge of GIS theory and applications. The course is appropriate for any major or minor where the student may be interested in learning to create and analyze layered digital maps. The course will be taught using a combination of lectures, demonstrations, and hands-on interactive tutorials in the classroom. Course topics include display and query of spatial data, map overlay and production, global positioning systems (GPS), and the application of spatial analytical tools to answer questions, solve problems, and make decisions.

Data discovery emphasis

Prerequisite: At least sophomore standing

ITL 351**Advanced Database Concepts**

A project-based course on advanced database management system design principles and development techniques. Topics include access methods, query processing and optimization, transaction processing, triggers, stored procedures, distributed databases, object-oriented and object-relational databases, database security and administration, and data warehousing. Students will learn these concepts using an industry standard enterprise-class database management system.

Data discovery emphasis

Prerequisites: ITL 112

ITL 361**Digital Imaging**

A project-based course focusing upon the production of digital images, this course provides opportunities for the development of expertise in the creation of digital imagery. The activities of this course include collaborative group development projects and intensive work with computer-based image editing hardware and software. The theoretical explorations of this course will focus on the study of visual culture.

New media technologies emphasis

Prerequisite: ITL 271

ITL 365**Digital Film**

A project-based course focusing upon the development of digital film, this course provides opportunities for the development of expertise in digital video creation. The activities of this course include collaborative group development projects and intensive work with computer-based video editing hardware and software. Students will also study film and develop a critical eye for digital film enhancements and productions.

New media technologies emphasis

Prerequisite: ITL 271

ITL 370**Web Design and Development**

A project-based course in Web design and development, students will develop Web-based materials and study the design issues surrounding their production and implementation. The study of hypertext environments as well as digital design will form the basis of the theoretical explorations of this course.

New media technologies emphasis

Prerequisite: ITL 271

ITL 397**Advanced Topics in Information Technology Leadership**

An in-depth examination of a selected topic in information technology, varying from year to year. This course is project-based; student learning will be focused on the production of specialized projects, whether individual, class-based, or both. Specific topic and prerequisites will be announced in the preregistration bulletin. Course can be retaken for credit when topics are different.

ITL 400

Service Learning Project Management

A service-learning course in partnership with one or more local nonprofit organizations. Students will be involved in every stage of the process of assisting local nonprofit organizations with information technology needs, including performing a needs assessment, developing a plan for addressing indicated needs (including a schedule of deliverables), and meeting the schedule in a timely manner. Identified needs will likely include such things as demographic analyses of the organization's client base, assistance with the development of networking systems and infrastructure, Web page development, and computer skills training. The course includes readings in the fields of service and leadership and coursework in the technologies necessary to complete the service compact.

Prerequisites: ITL 100, 102, 112, and 301

ITL 409

Dynamic Web Development

An advanced course designed to provide an understanding of concepts, techniques and software products used in building dynamic software applications for the World Wide Web. The course uses standard methodologies for application design and development and will teach evaluation, implementation and configuration of common operating system, database and scripting components to create powerful web applications. The class will culminate with each student designing, building and deploying a custom web application. Discussion and use of emerging web technologies is also included.

Data discovery emphasis

New media technologies emphasis

Prerequisites: ITL 112, 370, or permission of the instructor

ITL/ART 425

Graphic Design Studio

This course focuses on producing portfolio-quality work based on creative, visual problem solving. Class assignments build upon the theory and technical skills presented in the previous four courses in the graphic design concentration. This course is intended to provide a capstone experience for the concentration in graphic

design. This course does not satisfy requirements for either the art or art education major.

New media technologies emphasis

Prerequisites: ART 108, ART 112, ITL 271, and ITL 361

INTERNATIONAL BUSINESS

Professor: West (business coordinator)
Associate Professor: Hyland (languages
coordinator),

The international business major is intended to prepare students for an active role in today's world of international commerce. It combines the strengths of the Department of Economics and Business with those of the Department of Modern Languages to prepare students who will be capable of making significant contributions in the area of international business.

Coursework is combined with study abroad and/or an international internship to ensure that students will be able to participate to the fullest in the global economy of the future.

MAJOR REQUIREMENTS: ECN 101, 102; ACC 211, 212; BUS 300, 301, 307; MTH 225; one modern foreign language through 310; FRN (GER, SPN) 371, 372; a term of study abroad or an international internship in an area where the target foreign language is the primary language spoken; and two of the following: BUS 451, 453, 457, and ECN 321. A student who completes both a term study abroad and an international internship can count the internship as one of the two required business electives.

INTERNATIONAL STUDIES

Steering Committee:

Professors: Dodge, Myers, Scott

Associate Professors: Gai (Director), Misawa

Affiliated Faculty:

Professors: Gormly, Greb, Krol, Maloney,
Vande Kappelle

Associate Professors: Caffrey, East, Hyland,

Manzari, Pflanze, Shaughnessy, Swift, Taylor

Assistant Professors: Moser, Mulvania, Ternes

The International Studies Program offers an interdisciplinary major aimed at providing a global context for a liberal arts education. It is intended to expose students to a broad range of international issues through multidisciplinary course offerings from the arts, humanities, and social sciences. It also offers students the opportunity to study in relative depth one geographical area of the world through an area emphasis, language studies, and study abroad. The goal of the program is to help students become informed and productive citizens in an increasingly interconnected world. Students who successfully complete the international studies major will have an understanding of world events from multiple perspectives and the ability to analyze critically a narrowly defined topic of international interest from theoretical as well as experiential points of view. They will have an appreciation for the values and perspectives expressed by at least one culture different from their own. They will be able to communicate in culturally appropriate ways and in a language other than English with members of at least one society in their area of concentration.

MAJOR REQUIREMENTS: The international studies major requires a minimum of 11 courses representing at least four different departments. At least four of the 11 courses must be at the 300 level or above. All majors are required to complete a minimum of one term of study abroad as well as the capstone experience. The requirements are as follows:

- Four core courses, including POL 120, SOC 261, and at least two courses from the following list:

HIS 215: U.S. Diplomatic

History from 1898 to the present
POL 220: U.S. Foreign Policy
POL 320: International Politics
POL 321: International Law
POL 322: International Political Economy
POL 331: Politics of Developing Countries
REL 204: World Religions (Non-Christian)
SOC/
ANT 263: The Developing World

- One elective to be chosen from:

ENG 260: World Literature
EVS 201/
SOC 264: Environmental Issues in the Developed and Developing World
EVS 280: Environment and Development in East Africa
MUS 241: Music of the World
MUS 341: Music of the African Diaspora and Modern Africa
REL 205: Western Religious Traditions
REL 301: The Development of Western Christianity

- Three courses in one of the following areas:

EAST ASIA

HIS 151: Asian Heritages
HIS 250: History of Modern Japan
HIS 255: History of Modern China
HIS 350: Contemporary East Asia
HIS 352: China through Literature
HIS 355: Global Buddhism
POL 231: Politics of China
POL 250: Special Topics: Political Economy of East Asia
POL 350: Special Topics: East Asia in World Politics
REL 206: Eastern Religious Traditions
SOC 250: Japanese Society
SOC 350: Japanese Business and Industry

EUROPE

FRN 411:	Cultural History of France
FRN 420:	Topics in French and Francophone Cultures
GER 411:	Cultural History of Germany
GER 412:	Topics in German Culture
HIS 228:	Nineteenth-Century Europe
HIS 230:	Twentieth-Century Europe, 1919–1945
HIS 231:	Post-World War II and Contemporary European History
HIS 240:	Russia, the Soviet Union, and the CIS
HIS 304:	History of Modern Eastern Europe
HIS 320:	Modern European Diplomatic History
POL 160:	The Political System of Germany in Cologne
POL 330:	Comparative Politics
SPN 420:	Topics in Hispanic Culture
SOC 255:	Contemporary Russian Life

- Two courses of a foreign language at the intermediate level. Majors are urged to take at least one course in the language of their host country while they are abroad.
- All majors must spend a minimum of one term, or the academic equivalent, on a study abroad program approved by the IST director in line with the College study abroad guidelines. During study abroad, students will take a full load of courses, as defined by the program director and the study abroad institution. A maximum of five full-course equivalents of the required major courses may be taken during a term of study abroad and a maximum of six full-course equivalents of the required major courses may be taken during a full academic year of study abroad.
- All majors must take IST 490: Capstone Experience. The capstone experience could be an approved independent study, internship, or project. The independent study must involve original research of an interdisciplinary nature that must be

approved by the program director. The requirements for an approved internship or project will be determined by the program director depending on the nature of the internship or project. All options for the capstone experience will require both a paper and an oral presentation for successful completion.

IST 247

Topics in International Studies

This course is a study of selected topics in international studies. Actual topic and prerequisites will be provided at the time of registration.

Prerequisite: Varies according to the topic

IST 347

Advanced Topics in International Studies

This course is a study of selected advanced topics in international studies. Actual topic and prerequisites will be provided at the time of registration.

Prerequisite: Varies according to the topic

IST 490

Capstone Experience

The capstone experience must be an approved independent study, internship, or project. The independent study will require original research of an interdisciplinary nature subject to approval by the program director. The requirements for an approved internship or project will be determined by the program director depending on the nature of the internship or project. All options for the capstone experience will require both a paper and an oral presentation for successful completion.

Prerequisites: Senior status and approval by the IST director

IST 500, 501

Independent Study

Prerequisites: Senior status and approval by the IST director

JAPANESE

Japan is ancient yet modern and traditional yet dynamic. It is America's most important ally in the Pacific and one of our largest trading partners. Begin studying Japanese and the culture opens up; become proficient in Japanese and opportunities become endless. Courses in the Japanese language are offered through the Department of Modern Languages.

PLACEMENT PROCEDURES: All students taking a language at W&J must take the student information questionnaire prior to enrollment in that language. Students with a background in this language must also complete the computerized adaptive placement exam (CAPE). Incoming freshmen will usually take the exam prior to registration during summer orientation, but the exam may be administered at any time. The results of the questionnaire and exam will usually determine the level at which a student will begin a course of study in the language. A student who falls at the high or low end of a scoring range may be placed higher or lower than the course indicated, depending on the number of years of language the student has had. Placement in these situations is done in consultation with a faculty member from the relevant program. Because of the varying requirements for completing a major or minor in language, it is to the student's advantage to begin at the highest level possible.

JPN 105, 106

Elementary Japanese I, II

An introduction for students with little or no knowledge of Japanese, this course provides beginning work in understanding and speaking the language with emphasis on communicative competence. Students also are introduced to writing with Japanese characters.

JPN 105 is offered in the Fall term; JPN 106 in the Spring term

Taught largely in Japanese

Prerequisite: JPN 105, or permission of the instructor, for JPN 106

JPN 207, 208

Intermediate Japanese I, II

Intended for students who have completed the first-year sequence or the equivalent, these courses will focus on speaking, listening, reading, and writing to negotiate daily living experiences, many of which reflect traditional Japanese culture. Students will utilize the Hiragana, Katakana, and Kanji systems of writing.

These courses are taught largely in Japanese.

Prerequisites: JPN 106 for 207; JPN 207 for 208

MATHEMATICS

Professors: Woltermann, Wong
Associate Professors: Kline, Zimmerman (chair)
Assistant Professors: Doherty, Higginbottom
Instructors: Gaur, Jones

For students who select mathematics as a major or minor, the mission of the Department of Mathematics is to provide a program of study that is sufficiently strong and deep to enable them to pursue either graduate study in mathematics and/or professional careers in education, business, actuarial science, and other related fields.

The mathematics department is also committed to providing a variety of service-oriented courses that support programs in the physical, biological, social, and informational sciences that broadly introduce students to fundamental concepts in computation, statistics, and applied calculus that foster creative problem solving and quantitative literacy.

For the liberal arts student, the mathematics program is designed to offer a course selection that introduces topics that are relevant in the contemporary world. Finally, for students pursuing a career in education, the mathematics curriculum supports the NCTM (National Council of Teachers of Mathematics) standards and meets the Commonwealth of Pennsylvania's requirements for teaching certification.

MAJOR REQUIREMENTS: MTH 151, 152, 208, 211, 217, 320 (1/2 course), 420 (1/2 course), at least three additional courses numbered above 300, and at least one additional course numbered above 400. MTH 500 or 501 will count as one of these courses only with department approval.

CAPSTONE EXPERIENCE: The half-courses MTH 320: Junior MathTalk and MTH 420: Senior MathTalk, together with the Mathematics Field Test, constitute the capstone experience for mathematics majors. In each of the courses, majors are required to investigate a problem or topic in mathematics, read and understand mathematical exposition, write a report about their investigation, and give an oral presentation of their results to a professional audience that is composed of faculty and student peers.

Although a faculty member supervises the MathTalks program, students are expected to demonstrate an appropriate level of initiative, independence, and mathematical maturity.

3-2 ENGINEERING PROGRAM: Students in the 3-2 engineering program may major in mathematics by completing seven Washington & Jefferson College mathematics courses that are required for the major. See the engineering section of the catalog for more information on the program.

PROGRAM SUPPLEMENTS: ITL 102 and PHY 107 and 108 are recommended, but not required, courses.

MINOR REQUIREMENTS: At least six mathematics courses that count toward the major. MTH 225 may be counted as one of these six courses.

TECHNOLOGY REQUIREMENTS: Many of the introductory courses in calculus and statistics may require a Texas Instruments TI-83 or TI-84 Graphing Calculator.

PLACEMENT PROCEDURES: The department uses a placement exam to determine the appropriate course point of entry for mathematics. The process is designed to evaluate student readiness for various levels of mathematics. Based on the placement score, students may begin a track at the appropriate entry point. AP calculus credits and other external course work are evaluated and may be transferred. Advising is available to ensure a smooth transition to W&J mathematics.

Business Track

MTH 101 → MTH 131 → MTH 225

Math, Economics, and Science Track

MTH 111 → MTH 151 → MTH 152 ...

Elementary Education Track

MTH 123 → MTH 124

TEACHER CERTIFICATION: Students seeking teacher certification in mathematics

7–12 must complete the admission procedures and required courses in education and complete the required courses for the mathematics major, including MTH 301, 412, and one course from MTH 225 or 305.

PREPARATION FOR ACTUARIAL

EXAMS: Students preparing for the actuarial exams should complete MTH 225, 151, 152, 208, 217, 305, and BUS 315.

MATHEMATICS HONORARY: The purpose of the Delta Epsilon Mathematics Honorary is to recognize academic achievement and to promote interest in the field of mathematics. To be eligible for membership in the honorary, a student must complete at least four courses that are part of the mathematics major with a grade point average of 3.40 or better in four of those courses and have an overall grade point average of 3.00 or better.

MTH 101

Introduction to Functions

This course is designed to refresh students on many of the basic mathematical skills required in precalculus, calculus for the business sciences, and other quantitative skill courses. Topics include functions, linear equations, systems, polynomials, rational expressions, and quadratic, exponential, and logarithmic functions. This course is restricted to students whose placement score is under 12.

Prerequisite: Freshman or sophomore status; not available to seniors. Course not available to students with MTH 111 credit.

MTH 111

Precalculus Mathematics

For students who intend to take MTH 151 and need additional preparation. Aspects of algebra, trigonometry, and analytic geometry needed in the study of calculus are studied.

Offered: Fall and Spring terms

Prerequisite: Placement exam score

MTH 115

Mathematics in Our World

This course introduces the liberal arts student to mathematics as a useful and inherently interesting subject. The topics will vary from instructor to

instructor, but significant mathematics will be presented for an entry-level audience in the spirit of the liberal arts tradition. Topics might include consumer mathematics, recreational mathematics, number theory, geometry, modeling with spreadsheets, and other assorted mathematical excursions.

Enrollment is limited to freshmen and sophomores.

MTH 123

Nature of Mathematics: Number Systems

This course will introduce students to mathematical reasoning and strategies for problem solving. These will be applied to the study of sets and logic and understanding the basic operations of number systems. The course will also introduce students to the concepts of functions, patterns, and basic number theory. This course is not available for freshmen or seniors.

Offered: Fall term only

Required for child development and education majors.

MTH 124

Nature of Mathematics: Statistics and Geometry

This course will introduce students to mathematical reasoning and strategies for problem solving. These will be applied to the basic concepts of counting, probability, statistical data analysis, geometrical shapes, and congruence and similarity. This course is not available for freshmen or seniors.

Offered: Spring term only

Required for child development and education majors

MTH 131

Calculus for the Business Sciences

This course covers functions, limits, continuity, and the processes of differentiation and integration with an emphasis on practical applications. Additional topics include the calculus of logarithmic and exponential functions and an introduction to multivariable calculus. Students who have successfully completed MTH 151 or its equivalent will not be given credit for this course. This course is not available to freshmen with AP calculus credit. This course does not count towards a major or minor in mathematics. This is the same course as BUS 131. Business majors must take this course at W&J.

Offered: Fall and Spring terms

Prerequisite: Freshmen must have a placement score of at least 15; no prerequisite for non-freshmen; course not available to students with MTH 151 or 152 credit.

MTH 151 Calculus I

An introduction to the basic concepts of calculus including limits, differentiation, and integration. In particular, the course covers the basic theorems of calculus, the mean value theorem, and the fundamental theorem of calculus. Application topics contain related rates, optimization, area between curves, and volumes of solids of revolution.

Offered: Fall and Spring terms

Prerequisite: Placement exam score [19-30] or successful completion of MTH 111; course not available to students with MTH 131 credit or AP credit for part AB with a score of 4 or 5.

MTH 152 Calculus II

A continuation of Calculus I that features exponential, logarithmic, and inverse trigonometric functions; additional methods of integration; and the calculus of parametric and polar forms. The course also provides an introduction to sequences, series, Taylor series, power series representation of functions, tests for convergence, and various applications.

Offered: Fall and Spring terms

Prerequisite: MTH 151 or AP score of 5 on BC subgrade or permission of the Department of Mathematics .

MTH 208 Multivariable Calculus

This course explores the calculus of multivariable functions. The course begins with topics such as vectors, quadric surfaces, cylindrical and spherical coordinate systems, vector functions, space curves, and arc length and curvature. Topics in partial derivatives include limits, continuity, tangent planes, chain rule, gradient, extreme values of functions, and Lagrange multipliers. Topics in multiple integrals include iterated integrals, double/triple integrals, change of variables, and applications. The course concludes with an

introduction to vector fields, line integrals, and Green's theorem.

Offered: Fall and Spring terms, or on demand

Prerequisite: MTH 152

MTH 211 Foundations of Higher Mathematics

An introduction to the foundational concepts of higher mathematics including a historical perspective of their development. Topics will include basic logic, the algebra of sets, mathematical induction, relations, orderings, functions, the real and complex number systems, and an introduction to a particular algebraic or topological structure.

Offered: Fall term only

Prerequisite: MTH 152

MTH 217 Linear Algebra

Fundamental properties and applications of matrices and linear transformations, including systems of equations, vector spaces, determinants, and characteristic values.

Offered: Spring term only

Prerequisite: MTH 152

MTH 225 Probability and Statistics

An introduction to probability and statistics for students in the physical, biological, and social sciences. Topics include discrete and continuous probability distributions, sampling theory, tests of hypotheses, point and interval estimation, correlation, and linear regression. Business majors must take this course at W&J.

Offered: Fall and Spring terms

Prerequisite: Placement exam score for freshmen in the Fall (19-30) and in the Spring (15-30).

No prerequisite for sophomores, juniors and seniors.

Technology: A Texas Instruments Model 83 or 84 graphing calculator is required.

MTH 245 Applied Statistics for the Life Sciences

An introduction to statistics and experimental design as used in the life sciences. Emphasis will be placed on the practical use of statistical tests. The course covers testing of hypotheses and

parametric and non-parametric methods as well as two sample tests and complex ANOVA designs. Course focuses on when, why, where, and how to use statistics. Data will be analyzed using software and results will be interpreted and formally presented. This is the same course as BIO 245.

Course is not available to students who have completed MTH 225.

Prerequisite: BIO 101 or 102, or permission of the instructor

**MTH 301
Geometry and History of Mathematics**

This course examines the foundations of geometry, starting with neutral geometry and proceeding to the classical results in Euclidean geometry about triangles and circles. These include the theorems of Menelaus and Ceva, constructions, and the classification of plane isometries. Axioms for other geometries, such as hyperbolic or spherical are introduced, and these geometries are compared and contrasted with Euclidean geometry. This course also examines historical aspects of mathematics through readings and presentations on various topics.

Offered: Fall term of even-numbered years

Prerequisite: MTH 152

**MTH 305
Mathematical Statistics**

An introduction to classical probability theory that includes the axioms of a probability measure, conditional probability, and Bayes' Theorem; random variables and their probability distributions; moments and moment generating functions; distributions of special random variables such as binomial, Poisson, Chi square, and normal; sampling distributions such as the t and F distributions. Interval estimation and hypothesis testing also are discussed.

Offered: Spring term of odd-numbered years

Prerequisites: MTH 208 (required) and MTH 225 (recommended)

**MTH 308
Differential Equations**

Emphasis is on techniques for solving ordinary differential equations and on applications to the physical sciences. Possible additional topics are

systems of equations, Laplace transforms, and an introduction to partial differential equations.

Offered: Spring term of even-numbered years

Prerequisite: MTH 152

**MTH 311
Introduction to Number Theory**

An introduction to classical number theory including topics such as prime numbers, unique factorization, congruences, Fermat's, Wilson's and Euler's theorems, perfect numbers, primitive roots, quadratic congruences, the law of quadratic reciprocity, Fermat's conjecture, and the Fermat-Pell equation. The course involves problem solving, writing proofs and student projects on various topics in number theory.

Prerequisite: MTH 152

**MTH 317
Complex Variables**

An introduction to the theory and applications of complex variables. Topics include analytic functions, complex integration, and Cauchy's Theorem, Taylor and Laurent series, residues, conformal mapping, harmonic functions, and Laplace transforms. Applications will be made to problems in science and engineering such as fluid and heat flow, dynamical systems, and electrostatics.

Prerequisite: MTH 208

**MTH 320
Junior MathTalk (1/2 course)**

In this half course each student will investigate a mathematical problem or topic (appropriate for junior-level students of mathematics) under the supervision of a member of the mathematics faculty. The student will present the results of this investigation in a written report (using appropriate mathematics software) and an oral presentation to students and faculty. The report and oral presentation will be evaluated by all full-time mathematics faculty members to determine the student's grade in the course. Students will receive instruction in report writing and oral presentation.

Offered: Fall and Spring terms

Prerequisite: Permission of the Department of Mathematics.

MTH 361**Discrete Mathematical Structures**

An introduction to combinatorics. Topics include binomial coefficients, generating functions, partitions, multinomial coefficients, Stirling numbers, Catalan numbers, the pigeonhole principle, the inclusion/exclusion principle, permutations and Polya's counting theorem, and an introduction to graph theory.

Prerequisite: MTH 152

MTH 390**Topics in Mathematics**

Contents may vary depending on the needs and interests of students and faculty. Possible topics include number theory, algebraic structures, numerical analysis, operations research, complex variables, and topology.

Prerequisite: MTH 152 plus permission of the Department of Mathematics.

MTH 412**Algebraic Structures**

An introduction to the study of abstract algebraic structures including groups, rings, and fields. In particular, topics will include subgroups, cyclic groups, groups of permutations, the fundamental theorem of Abelian groups, homomorphisms, factor groups, rings, fields, integral domains, Fermat's and Euler's theorems, rings of polynomials, ideals, and ring homomorphisms, and the basic concepts of graph theory. The course also emphasizes the writing of proofs and logically explained problem solutions.

Offered: Fall term of odd-numbered years

Prerequisites: MTH 208, 211, and 217

MTH 415**Real Analysis**

This course provides a rigorous treatment of the calculus concepts of limits, continuity, sequences, differentiation, and integration (including double integrals). It includes the axioms for the real number system, basic topological properties of \mathbb{R}^n , basic concepts of metric spaces, and proofs of the classical theorems of calculus.

Offered: Fall term of even-numbered years

Prerequisites: MTH 208, 211, and 217

MTH 420**Senior MathTalk (1/2 course)**

In this half course each student will investigate a mathematical problem or topic (appropriate for senior-level students of mathematics) under the supervision of a member of the mathematics faculty. The student will present the results of this investigation in a written report (using appropriate mathematics software) and an oral presentation to students and faculty. The report and oral presentation will be evaluated by all full-time mathematics faculty members to determine the student's grade in the course. Students will receive instruction in report writing and oral presentation.

Offered: Fall and Spring terms

Prerequisite: Permission of the Mathematics Department

MTH 500, 501**Independent Study**

MIND, BRAIN, AND BEHAVIOR

Associate Professors: Bayline, Fee, Klitz,
Wilson (program director)
Assistant Professors: Holland-Minkley

The Mind, Brain, and Behavior Program has been developed in accord with Washington & Jefferson's college-wide initiative for innovative academic programs that are organized around common issues rather than traditional disciplines. In this spirit, the Mind, Brain, and Behavior Program is designed to offer a multi-disciplinary framework for students interested in the mechanisms underlying behavior. This program builds on W&J's strengths in biology, philosophy, and psychology. It also complements the development of new programs in neuroscience and information technology.

The overall mission of the program is to utilize insights gained from interdisciplinary discourse to improve human self-understanding, to educate students in new methods designed to investigate human experience, and to foster collaborative scholarship that would not be possible within traditional disciplines.

Students in the program will have the advantage of gaining an interdisciplinary perspective on their area of interest before pursuing more specialized study after graduation. Appropriate professional and academic fields for students graduating from the Mind, Brain, and Behavior Program include medicine, law, speech and hearing, education, biology (neuroscience), philosophy, cognitive science, and psychology.

Students will also develop skills as critical thinkers and problem solvers, and will learn to present themselves clearly through academic writing while considering broader theoretical implications. Mind, brain, and behavior students also will be encouraged to conduct empirical research and to present their findings as a poster or paper at an internal or regional under-graduate conference. They will have the opportunity to study with faculty in a variety of disciplines who have a strong interest in the mind-brain system. Among the specific scholarly interests of mind, brain, and behavior faculty are applied behavior analysis, biofeedback, computational modeling of cognitive processes, developmental neurobiology of motor control, development of

visual perception and cognition in human infants, evolutionary psychology, human learning, perceptual and cognitive processes in reading, philosophy of mind and language, and psychology and the law.

Students will begin the program with an integrative introductory course, and then concentrate in one of three specialty tracks in psychology, biology, or philosophy. Students will also take two courses in each of the other two tracks. The program will conclude with a capstone project in the student's specialty track. For those majoring in biology, psychology, or philosophy, the program requires five courses beyond the major.

ELE 007

Mind, Brain, and Behavior Integrated Introductory Course

What are the core determinants of intelligent behavior? Although once considered to be the province of experimental psychology, increasingly, investigators from neuroscience, linguistics, philosophy, and computer science have collectively formed the cognitive sciences to formulate answers to this complex question. The course seeks to introduce students to this interdisciplinary undertaking by examining how complex systems carry out functions such as vision, memory, and language. Original writings by classic and contemporary investigators will form the scholarly base for class discussion. Emphasis will be placed on how critical experiments contributed to the evolution of ideas. Focus is on understanding the determinants of behavior from multiple perspectives.

Offered: Interession

SPECIALTY TRACKS

Biology

- BIO 101 General-Part I
- BIO 102 General-Part II
- BIO 206 Animal Behavior
- BIO 235 Animal Physiology
- BIO 435 Neurobiology (capstone)

Psychology

- PSY 101 Elementary-Part I
 PSY 102 Elementary-Part II
 PSY 215 Experimental
 PSY 225, Social; History and Systems;
 311, 285, Physiological; or Developmental
 or 265
 PSY 406, Advanced Laboratory in
 485, 425, Perception and Cognition;
 or 475 Behavioral Neuroscience; Social
 Psychology; or Sensation and
 Perception (capstone)

Philosophy

- PHL 123 Introduction to Logic
 PHL 125 Evaluating Scientific Reasoning
 PHL 220 Problems with Knowledge
 PHL 270 Special Topics: Philosophy of Mind
 PHL 450 Research Seminar in Philosophy
 (capstone)

MBB 200**Human Nature and Literature**

This team-taught course uses literature and science to explore specific aspects of the human experience. Emphasis will be on how concepts of the individual have evolved since the early 20th century. Course content will vary from offering to offering. Future topics may include: The Individual and Totalitarian Society; The Making of Human Intelligence; and The Individual and Reproductive/Gender Roles.

MUSIC

Professor: Woodard (chair)
Associate Professors: Medley, Swift
Assistant Professor: Simpson

Music courses are open to all students, several without prerequisites. The department offers a variety of enrichment courses valuable to a general education as well as a strong program in theory, history, world music, and performance leading to a music major or minor.

MAJOR REQUIREMENTS: A minimum of 10 courses in music, including MUS 201 and 202; MUS 205 and 206; at least one other course at the 200 level and two courses at 300 level (one of these must reflect a world music topical area); MUS 401 with successful presentation of the senior music project; two full years (four consecutive terms) of a W&J large ensemble; and two consecutive terms of one performance experience, such as applied study in voice or instrumental music, chamber music ensemble, Camerata Singers, or Jazz Ensemble.

MINOR REQUIREMENTS: MUS 201 or 202; MUS 205; four consecutive terms in Choir or Wind Ensemble; three courses from the department's offerings numbered 221 and above; and successful completion of the senior music project. Projects may include senior recitals, papers, and other forms of presentation approved by the music faculty.

NOTE: MUS 103 and 204 do not count toward the minor or major in music.

PERFORMANCE (APPLIED) STUDIES: The music department offers a number of courses in music performance areas known as applied studies. These courses are denoted by the prefix MUA and, as partial courses (see page 21) yield partial credit. Applied studies in music may be taken more than once, with ongoing participation in the College ensembles strongly encouraged. For private instruction in instrumental or vocal music, students should register for the appropriate applied studies course and see the instructor to schedule a one-hour weekly lesson. For private instruction, there is a per-term applied lesson fee.

APPLIED COURSES

1/4 Course Credit Each:

Choir
Wind Ensemble

1/2 Course Credit Each:

Jazz Ensemble
Camerata Singers
Chamber Music Ensemble
Private Instruction in Voice
Private Instruction in Instrumental Music

MUA 101 (1/4 course)

Choir

Participation in W&J Choir offers training in vocal and ensemble techniques, sight-reading, and a wide-ranging repertoire. Along with regularly-scheduled concert performances, the W&J Choir also sings at important College functions and at various community events. All students are welcome to participate with consent of the director, who will determine voice placement.

MUA 111 (1/4 course)

Wind Ensemble

The W&J Wind Ensemble performs the standard band literature as well as the more specialized repertoire utilizing the concept of one player per part. Performing each term at the Olin Fine Arts Center, the ensemble also plays for community events and tours on occasion. Students registering in the Wind Ensemble must have prior experience playing a reed, brass, or percussion instrument, and read music fluently. The director determines seating placement according to instrumental ability.

MUA 211

Camerata Singers (1/2 course)

A small, select vocal ensemble, the Camerata Singers perform a wide variety of music ranging from madrigals to jazz and popular styles. Seeking mastery of a fine body of repertoire in a stylistic manner, W&J's Camerata performs frequently, both on and off campus. The director determines eligibility and placement.

MUA 215 (1/2 course)**Jazz Ensemble**

An ensemble of 18 members that performs standard works from the jazz repertoire in addition to new works written by today's most innovative composers, the W&J Jazz Ensemble rehearses twice weekly with occasional supplementary sectional rehearsals. The instrumentation includes five saxophones, four trombones, five trumpets, bass, drums, guitar, and piano. The group makes at least one concert appearance each term, performs in the community and also hosts master classes by leading visiting jazz performers. The director determines seating.

MUA 217 (1/2 course)**Chamber Music Ensemble**

Available by consent of the music faculty to all instrumentalists (including piano and strings) interested in forming duos, trios, and other chamber ensembles to learn the traditional and contemporary literature, as well as to singers interested in the art song repertory. Special attention is given to ensemble techniques and stylistic concerns of the selected repertory. A presentation of the music studied is required to receive credit.

Chamber ensembles seeking coaching by outside specialists may incur private coaching fees. Contact music faculty for details.

Private Instruction Courses

Weekly private lessons (12 per term) for partial credit are available in voice, piano, organ, guitar, flute, saxophone, clarinet, oboe, trumpet, trombone, tuba and violin. Each studio focuses on building skills in technique, musicianship, and repertory, enabling students to gain proficiency in performance. For specific studio guidelines, students are encouraged to contact the instructor prior to registering. End-of-term juries and Student Recognition Recitals offer evaluation and performance opportunities to those taking private music instruction.

MUA 121 (1/2 course)**Applied Piano****MUA 122** (1/2 course)**Applied Violin****MUA 131** (1/2 course)**Applied Voice****MUA 141** (1/2 course)**Applied Woodwinds****MUA 151** (1/2 course)**Applied Guitar****MUA 161** (1/2 course)**Applied Brass****MUA 171** (1/2 course)**Applied Double Reeds****MUA 181** (1/2 course)**Applied Organ****MUA 191****Applied Trumpet** (1/2 course)

LECTURE COURSES

MUS 103**Introduction to Music Listening**

Open to all students without prerequisite. A course designed to acquaint students with basic listening skills as well as relationships among the major stylistic periods in Western and non-Western music. The goal of this course is to expand the student's musical perception through a variety of listening approaches, assigned readings, lectures, live performance attendance, and discussions. Emphasis is on the distinguishing characteristics of music from various eras and composers.

Does not count toward music major

MUS 241**Music of the World**

Open to all students without prerequisite. This course focuses on a collection of diverse music-cultures from around the globe, addressing art, folk, and popular music styles. Using directed listening and guided, hands-on experiences, students will develop the intellectual tools needed for grasping what it means to make music in a different culture. Because music in non-Western contexts is not an isolated discipline, related cultural ideas such as belief systems, modes of communication and transmission, and musical

instrument design are also important to the study.

Offered: Fall term annually

MUS 201, 202

History of Western Music

MUS 201 Antiquity through the Baroque

MUS 202 Age of Enlightenment into Twenty-First Century

Open to all students without prerequisite. This course is a survey of the musical heritage of Western civilization. Selected major musical works will be examined from a variety of historically oriented standpoints, including their cultural milieu, their main stylistic aspects, and performance practice.

Sequence offered 2007–08; in alternate years thereafter

MUS 204

Music Theory Fundamentals

Open to all students without prerequisite. This course is an introduction to the basic materials of music—the development of skills in rhythmic and melodic notation, scales, and elementary harmony. Presented in both traditional and computer-assisted styles, the course seeks to develop critical listening and music reading/writing skills.

Does not count toward music major

MUS 205, 206

Music Theory I, II

Music Theory I focuses on the musical style of the common-practice period. Students will analyze scores from this repertoire with respect to harmony, melody, rhythm, growth, and other musical characteristics. Students will compose examples illustrating stylistic characteristics, including harmony, voice leading, and counterpoint. Through sight singing and dictation, students will also develop aural skills.

Music Theory II continues to build skills of analysis and composition. Scores from a wider scope of music history will be analyzed, exposing students to a variety of harmonic and formal techniques. Composition assignments

will allow students to apply new techniques observed in analysis. Students also will continue to develop aural skills through more advanced sight singing and dictation. Both MUS 205 and 206 are presented in traditional and computer-assisted styles.

Sequence offered 2008–09; in alternate years thereafter

Three hours lecture, one hour lab

Prerequisites: MUS 204 or placement exam; 205 is prerequisite to 206

MUS 231

Beethoven

Open to all students without prerequisite. An exploration of the composer's life, work, and in-depth study of representative music from each of his creative periods, current theories and analyses of Beethoven's compositional technique are considered alongside the traditional investigations, enabling students to compare various interpretations by scholars and performing musicians. Exposure to a wide range of critical inquiry, live performances, and guest lectures enrich this course.

MUS 245

Music and the Natural Environment

This course examines musical models of the environment by focusing on programmatic music, i.e. music that has specific associations beyond its inherent musical design. In order to understand how different cultures musically interpret their environments, we must consider both Western and non-Western perspectives. Characteristic of such a study is an examination of how humans relate to the environment emotionally and spiritually, not just physically and quantitatively. Student work will focus on learning how to hear environmental messages in music and practicing the communication of these skills orally.

Offered: Spring term in odd-numbered years

MUS 251

Jazz History

Open to all students without prerequisite. Through readings and extensive listening, this course will focus on the leading personalities of jazz from the early twentieth century to the present. The evolution of major stylistic trends

will be examined, as well as social, political, and economic influences.

MUS 255, 256

Topics in Music

Open to all students without prerequisite. This course is an in-depth study of a subject chosen from topics varying from year to year. Among those topics courses offered recently are vocal masterpieces; Romeo and Juliet in Words and Music, The Art of Conducting, The Art of Accompanying, Asian music, Venice, Vivaldi and The Four Seasons, A Pilgrimage to Beethoven's Ninth Symphony, Film Music and Women in Music. Current topics in music will be published in the preregistration bulletin.

MUS 261

American Music

Open to all students without prerequisite. This course is an historical and stylistic examination of a variety of vernacular and art music reflecting American culture. Such forms as folk and popular songs and dances, jazz and concert music, America's diverse sacred styles, opera, and musicals will be considered.

Offered: Spring term in even-numbered years

MUS 300

Music Since 1900

This course traces the creative development of musical ideas during the twentieth century. Derivations from the visual arts, theatre, dance, and multicultural sources are examined, as is the eclecticism of influences in the modern world. Beginning with the impressionists in France, the course surveys primary personalities and stylistic paths in Europe, Russia, England, Latin America, and the United States.

Offered: Spring term in even-numbered years

Prerequisite: One of MUS 103, 201, 202, 205, 206, 241, 261, or permission of the instructor

MUS 306

Music Theory III

Music Theory III continues to build skills of analysis, composition, and ear training. Scores from the eighteenth and nineteenth centuries will be analyzed and used as models for original composition, exposing students to a wider spectrum of harmonies and formal structures.

Students will continue to develop aural skills through sight singing, chord identification, and multi-voice dictation exercises.

MUS 308

Music of the Baroque

A survey of music from the beginning of the seventeenth century to about 1750, with emphasis on vocal forms and the rise of instrumental music as primarily exemplified in the works of Monteverdi, Schutz, Corelli, Vivaldi, Handel, and Bach. Students will be introduced to concepts that enhance their understanding of baroque artistic ideals, evolving technologies, and performance practices.

Prerequisite: One of MUS 103, 201, 202, 205, 206, 241, 261, or permission of the instructor

MUS 309

Nineteenth-Century Romantic Music

A study of that music of the nineteenth century giving voice to the Romantic Movement, this course examines music in its respective circles of men and women who compose, perform, write about and influence its creation. Selected genres are studied, focusing on short lyric forms, programmatic and absolute music, including symphonies, piano sonatas, chamber music, art songs and opera. The relationship of the musicians to their culture and connections with other arts of the period will be considered. Live performances will enrich lectures, class discussions and writing projects.

Prerequisite: One of MUS 103, 201, 202, 205, 206, 241, 261, or permission of the instructor

MUS 310

Writing About Music

A discussion-based course that explores the relationship between words and music, and examines the challenges to insightful, effective writing in the arts. Class sessions are devoted to reading selections and identifying observational perspective, vocabulary development, music research methods and peer-reviewing. Writing forms emphasized include press releases, critical reviews, program notes, essays, research papers and annotated bibliographies. Drafting, editing, and revising are guided by the instructor, along with preparing work for publication and presentations for an audience beyond the

classroom. Typically, a guest music critic visits campus and speaks with students. MUS 310 is part of W&J's Professional Writing Program.

Prerequisite: One of MUS 103, 201, 202, 205, 206, 241, 261, or permission of the instructor

MUS 341

Music of the African Diaspora and Modern Africa

People of African descent have enriched nearly every kind of music one encounters in the Western hemisphere. This course will look at modern manifestations of African music (juju, highlife, afrobeat) and African-derived music in the Caribbean and Americas (vodou, samba, reggae, calypso). The course also will acquaint students with the methods of inquiry of ethnomusicology, integrating the study of history, culture, and society with the study of music.

Typically offered in Fall term

Prerequisite: One of MUS 103, 201, 202, 205, 206, 241, 261, or permission of the instructor

MUS 361

Micromusics of America: Urban and Regional Styles

Confounding any efforts to describe a distinctly "American" style of music is the incredible diversity of urban, ethnic, and regional styles found in this country. This course will look at America not as a "melting pot" but as a "stew," in which indigenous music from around the globe are preserved, but with localized variants and innovations. Students will learn to identify and accurately describe these styles of music and performance practice. A significant part of the class will be devoted to using technological tools and statistical instruments of the social sciences to examine the importance of this music to our society.

Typically offered in Fall term.

Prerequisite: One of MUS 103, 201, 202, 205, 206, 241, 261, or permission of the instructor

MUS 401

Music Seminar

Music seminar provides a forum in which students who have completed upper-level courses in music, along with those seriously interested in the subject matter, can engage in

meaningful discourse about a variety of relevant topics and issues. Readings and musical examples are assigned for each seminar meeting, participants being given principal responsibility for leading discussions. The range of topics includes, though is not limited to, the evaluation of new music, the historical performance movement, ethnomusicology and cultural musicology, and performance and repertory subjects related to scheduled performances at the College and in Pittsburgh. Participants in music seminar will be expected to make formal presentations during the term, submitting written work for each. Music majors and minors will present their senior music projects during the seminar, as a capstone experience in music.

Typically offered in Spring term

MUS 500, 501

Independent Study

NEUROSCIENCE

Professor: Sheers

Associate Professors: Bayline (director), Wilson

Assistant Professors: Leonard, Matsuno, Wenk

The neuroscience program is an interdisciplinary program with faculty members from biology, chemistry, psychology, and physics. The program provides two courses of study. The neuroscience emphasis is provided for students who major in biology or psychology. Students majoring in other disciplines may complete a neuroscience minor. These courses of study are designed for students interested in graduate study or employment in any of the disciplines associated with neuroscience, including neurology, molecular neuroscience, psychiatry, and biopsychology.

EMPHASIS REQUIREMENTS: Along with the requirements in each student's biology or psychology major, the student must complete three core courses in neuroscience (NSC 210, 300, and 400). Additionally, each student must complete a neuroscience-related research project that may be fulfilled by either an on-campus tutorial or independent study project, or a summer or Intersession internship.

MINOR REQUIREMENTS: Students in all majors other than biology or psychology must complete the equivalent of six courses for the minor. These courses include two introductory science courses from two different disciplines (BIO 101 or 102, CHM 160, PHY 101 or 107, or PSY 101), the three core neuroscience courses (NSC 210, 300, and 400), and a neuroscience-related research project that may be fulfilled by either an on-campus tutorial or independent study project, or a summer or Intersession internship.

NSC 210

Introduction to Neuroscience

This course is intended to expose students to the world of the neuroscientist. Students will learn the subject matter of neuroscience and gain insight into the interdisciplinary nature of the field, bridging psychology and biology, as well as topics in physics and chemistry. To this end, we will examine various topics from the perspectives of these different disciplines.

Examples of topics may include: cognition, motor systems, emotion, sensory systems, development, consciousness, evolution, and pharmacology. Each module will include lecture and background information, a discussion on a specific research question within the topic, and some type of demonstration or applied experience.

Offered: Intersession

Prerequisite: One of the following courses: BIO 101 or 102, PSY 101, CHM 160, or PHY 101 or 107

NSC 300

Experimental Neuroscience

This course will combine lectures, laboratory exercises, discussions, and independent projects to allow students to explore topics across the breadth of the field of neuroscience. These topics will include neuroanatomy, neurophysiology, synaptic transmission, anatomy and physiology of sensory and motor systems, behavioral and cognitive neuroscience, and neural development. In the laboratory, students will learn a wide variety of experimental techniques focused on anatomical techniques, physiological techniques, behavioral techniques, and computational techniques. Through these exercises, the students will learn to design, implement, and analyze experiments. Scientific writing will be emphasized. Finally, students will learn to critically read and evaluate research as presented in the primary literature through class presentations and discussions.

Offered: Fall term

Prerequisite: BIO 102 or NSC 210

NSC 400

Advanced Topics in Neuroscience

This course is designed for students acquiring an emphasis in neuroscience. In the course, we will explore different topics in the neurosciences surrounding a central theme by reading and presenting papers from the primary research literature. Potential topics include: neural development, neurobiology of disease, pharmacology and drug effects, computational modeling of neural networks, and neurobiology of sexual

behavior. All classes will have a discussion format. Students will be required to give at least two oral presentations of the research presented in a paper. In addition, the major project in this course will be the preparation of a grant proposal by each student based on a review of the primary research literature in the field.

Offered: Spring term

Prerequisites: NSC 210 and 300

NSC 500, 501

Independent Studies in Neuroscience

The independent study in neuroscience provides students pursuing the neuroscience emphasis or minor the opportunity to carry out independent research under the supervision of a W&J faculty member. Proposals stating the background for the expected work, the experimental design, possible results, and evaluation criteria must be submitted to and approved by the Neuroscience Advisory Committee by the end of the first week of the term in which the independent study is taken. At the end of the term, students must present their work to the Neuroscience Advisory Committee as part of their overall evaluation.

Prerequisite: NSC 300

PHILOSOPHY

Professor: Rembert (chair)

Associate Professors: Osborne, Wolf

Assistant Professor: Kim

The mission of the Department of Philosophy is carried out through its courses, through interdisciplinary studies to which it contributes, through its promotion of the W&J Philosophy Club, and through its efforts to involve students with the philosophical community both regionally and nationally. The philosophy department aims to help students improve their skills in careful reading, critical thinking, and clear writing. It also seeks to provide opportunities for students to explore the foundational questions underlying both their lives and their careers. Finally, it seeks to provide a major course of study that will enable students to be successful in arenas from graduate programs in philosophy to professional schools in law or medicine to a wide range of careers in which reading, thinking, and writing skills are vital.

MAJOR REQUIREMENTS: The major student will be expected to complete 10 courses in philosophy. These must include PHL 123, 201, 204, 450, and at least one other course numbered above 300. Not more than three courses at the 100 level shall be counted toward the major. PHL 450 serves as the capstone experience for this major. With the consent of the major advisor, POL 341 and 342 also may be counted towards the philosophy major. Majors are urged to include a language in their program. Those intending to do graduate work in philosophy should have a reading knowledge of two languages, generally chosen from French, German, and classical Greek.

MINOR REQUIREMENTS: Six courses, including 123 and either 201 or 204.

NOTE: None of the 100-level courses have prerequisites. Any would be appropriate for a beginning philosophy student.

PHL 101

Beginning the Conversation: An Introduction to Philosophy

A variety of literary sources is used in order to

provide a first acquaintance with some of the language, techniques, and concerns commonly associated with philosophy and, most important, to provide an opportunity to join in the conversation of philosophy itself.

PHL 123

Introduction to Logic

This course provides an introduction to deductive reasoning in both its classical and modern forms.

PHL 125

Evaluating Scientific Reasoning

A course devoted to critical skills with respect to concepts, procedures, and problems that are typical, though not exclusive, to the natural and social sciences: e.g., inductive and analogical arguments; experiment; relevance and strength of evidence; and the nature of theories, hypotheses, and laws.

PHL 130

Moral Philosophy

A survey of the major current approaches to moral theory, combined with an examination of their application to important contemporary moral problems.

PHL 135

Social and Political Philosophy

This course presents classical and contemporary conceptions of the nature and aim of social and political communities with discussions of current social issues.

PHL 136

Philosophy and Gender

This course is an introductory exploration of the central themes and orientations that are presently being pursued by philosophical feminists. Can human beings be thought of as pure thinkers or is our life in the world shaped in important ways by the bodies through which we live in the world? Are ethical principles universal and unchangeable or are they formed by the gender and other contexts in which we live? Is scientific objectivity gender neutral or

do scientists frame their questions as well as their answers based in some measure on the gender and other contexts within which they live and work?

PHL 137

Philosophy and Race

This course is an introductory exploration of central philosophical issues that arise from the embodied character of human life and are raised by philosophers of color. How does our perceived race affect the content of our social experience? How can society work toward a genuinely common political community that is composed of people of significantly differing social and cultural traditions? What are the requirements of racial fairness?

PHL 138

Philosophy and the Arts

This course is an introduction to aesthetics, focusing on the role of the arts in human life and society. Through engagement with classic and contemporary texts and a variety of artworks, this course addresses such questions as: What is art? Could anything be art and is art a special type of product or activity distinct from other domains? What makes one work of art better than another? What is the value of the arts in society or in the individual life?

PHL 145

Faith and Reason

This course is an introductory-level course exploring the relationship between reason and faith, particularly as they relate to the grounding of religious belief. The course will explore both classical and contemporary readings. This course is the same as REL 145.

PHL 201

Classical Philosophy

The earliest phases in the development of Western philosophy, from its origins into the Christian era are explored. Special emphasis will be on Plato and Aristotle.

Prerequisite: One philosophy course or permission of the instructor

PHL 202

Medieval Philosophy

Western philosophy from the fourth through the fourteenth centuries of the Common Era,

including seminal medieval thinkers of the Christian, Islamic, and Jewish traditions, is studied. Emphasis will be on Augustine, Averroes, Moses Maimonides, Thomas Aquinas, and William of Ockham.

Prerequisite: One philosophy course or permission of the instructor

PHL 204

Early Modern Philosophy

This course presents philosophy from the time of Galileo to the French Revolution with emphasis on Descartes, Hume, and Kant.

Prerequisite: One philosophy course or permission of the instructor

PHL 205

Nineteenth-Century Philosophy

One of the most diverse periods of Western philosophy, encompassing German Idealism and its wake, are explored. Emphasis will be on Hegel, Kierkegaard, Marx, and Nietzsche.

Prerequisite: One philosophy course or permission of the instructor

PHL 207

Existentialism

This course is an introduction to the philosophical current running through late nineteenth- and early twentieth-century Europe, which emphasized questions of human being and freedom. Figures studied may include Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, and de Beauvoir.

Prerequisite: One philosophy course or permission of the instructor

PHL 209

Topics in the History of Philosophy

This course is an introductory study of a selected period in the history of philosophy, requiring no prior acquaintance with philosophy. Among the possible options for topics might be pre-Socratic, medieval, American, existentialist, or non-Western philosophy. Actual topic will be announced in the preregistration bulletin.

Prerequisite: One philosophy course or permission of the instructor

PHL 220**Epistemology**

An introduction to the classical question of the extent to which the human intellect can ascertain the nature of things and by what means.

Prerequisite: One philosophy course or permission of the instructor

PHL 223**Symbolic Logic**

This is an intermediate logic course providing an acquaintance with some of the techniques of twentieth-century symbolic logic.

Prerequisite: PHL 123

PHL 225**Philosophy of Science**

This course is an exploration of the nature of scientific inquiry. It will examine such basic issues as the nature of scientific explanation, the confirmation of scientific hypotheses, and the character of scientific change. It will also examine the rules of data, theory, and the dynamic of scientific communities in the process of gaining scientific knowledge.

Prerequisite: One philosophy course or permission of the instructor

PHL 231**Environmental Ethics**

This course is an examination of the ethical issues and perspectives that arise in our human encounter with the natural environment. Is the moral community comprised solely of human beings or does it extend to animals and perhaps even trees? Is moral value best understood from the perspective of individual beings or is it better understood in terms of communities or ecosystems? The course also will explore a range of environmental issues including population, world hunger, pollution, global warming, and sustainability.

Prerequisite: One philosophy course or permission of the instructor

PHL 232**Dimensions of Professional Ethics**

This course is an examination of ethical issues that typically arise in a specified professional

context, aiming at developing skill in clear and effective reasoning with respect to ethical dilemmas generally. Possible topics would be medical ethics, legal ethics, or business ethics. Actual topic will be announced in the preregistration bulletin.

Prerequisite: One philosophy course or permission of the instructor

PHL 240**Metaphysics**

This course is an introduction to the classical question of what is real, with respect both to its nature (ontology) and its kinds (metaphysics).

Prerequisite: One philosophy course or permission of the instructor

PHL 242**Philosophy of Mind**

This course investigates the nature of mentality, focusing on the relation between the mind and the body. Topics may include consciousness, the self and personhood, meaning, innateness, perception, knowledge of other minds, and the possibility of artificial intelligence. Relevant research in psychology, neuroscience, and linguistics may be considered.

Prerequisite: One philosophy course or permission of the instructor

PHL 245**Philosophy of Religion**

Selected topics related to religion: e.g., the nature and significance of religious experience, proofs and evidence for the existence of God, the problem of evil, and the immortality of the soul. This course is the same as REL 245.

Prerequisite: One philosophy course or permission of the instructor

PHL 270**Topics in Philosophy**

An introductory survey of a selected topic in philosophy: e.g., aesthetics, philosophy of history, philosophy of sport. Actual topic will be announced in the preregistration bulletin.

Prerequisite: One philosophy course or permission of the instructor

PHL 309

Advanced Topics in the History of Philosophy

This course is a study of a single work, or the work of a single writer, at a level that presupposes some prior acquaintance with the history of philosophy. Examples might be the work of Plato, Aristotle, Kant, Heidegger, and Wittgenstein. Actual topic and prerequisites will be announced in the preregistration bulletin.

Prerequisites: Two previous philosophy courses, at least one of which must be at the 200 level, or the permission of the instructor

PHL 320

Advanced Problems in Epistemology

An introduction to the classical question of the extent to which the human intellect can ascertain the nature of things, and by what means. This course is the same as PHL 220: Problems of Knowledge, but will require a more advanced level of reading, writing, and class participation. The required essay will fulfill the essay prerequisite for the senior research seminar in philosophy.

Prerequisites: Two previous philosophy courses, at least one of which must be at the 200 level, or the permission of the instructor

PHL 325

Advanced Problems in Philosophy of Science

Selected problems in the methodology and conceptual foundations or the social significance of science and technology will be presented. Actual topic and prerequisites will be announced in the preregistration bulletin.

Prerequisites: Two previous philosophy courses, at least one of which must be at the 200 level, or the permission of the instructor

PHL 330

Contemporary Ethical Theory

This course is a study of writing on selected issues in ethical theory from the last half century.

Prerequisites: Two previous philosophy courses, at least one of which must be at the 200 level, or the permission of the instructor

PHL 340

Advanced Topics in Metaphysics

This course presents selected problems in the area of metaphysics. Specific course content will vary from offering to offering. Examples of topics to be explored in this course would be action theory, artificial intelligence, causation, freedom, necessity and possibility, realism, and ontology.

Prerequisite: One 200-level philosophy course or permission of the instructor

PHL 345

Advanced Topics in Philosophy of Religion

This course presents selected problems in the area of philosophy of religion. Specific course content will vary from offering to offering. Examples of topics to be explored in this course would be the warrant for religious knowledge claims, arguments for God's existence, religious language, religion and science, and the problem of religious diversity.

Prerequisite: One 200-level philosophy course or permission of the instructor

PHL 370

Advanced Topics in Philosophy

This course is similar to PHL 270 with the exception that some prior acquaintance with philosophy will be expected. Actual topic and prerequisites will be announced in the preregistration bulletin.

Prerequisites: Two previous philosophy courses, at least one of which must be at the 200 level, or the permission of the instructor

PHL 450

Research Seminar in Philosophy

This course is the culmination of the undergraduate introduction to philosophy. The topics and readings to be covered here will be determined by the participants' required senior essay project, to be written in conjunction with this course. Details concerning this requirement are available from any member of the philosophy department.

Prerequisites: Four previous philosophy courses, including the completion of one major (20-page) research essay in philosophy

PHYSICAL EDUCATION

Professor: Staton (chair)

The mission of the Department of Physical Education/Wellness Department is to provide the knowledge for students to make healthy lifestyle choices throughout their lifetime. The programs are designed to provide proficiencies in lifelong recreational activities and wellness concepts to enable our graduates to make worthy use of leisure time. The attention of all students is directed to the physical education/wellness requirement contained in the curriculum section (page 16) in this catalog. Students should complete this requirement by the end of their sophomore year.

PED 101 (1/4 course)
Beginning Racquetball

An introduction to the sport of racquetball, this course emphasizes skill development, knowledge of rules, and playing strategies.

PED 103 (1/2 course)
Sports Nutrition for Health and Fitness

This course focuses on the understanding and application of sports nutrition principles for the casual exerciser, elite athlete, or sedentary student interested in good health and exercise.

PED 104 (1/2 course)
Fitness Through Activities

This course is designed to help students formulate and maintain their own physical fitness program through participation in a variety of activities. Students will learn the concepts of improving and assessing cardiovascular endurance, building muscular strength, and increasing flexibility.

PED 105 (1/4 course)
Folk, Square, and Ballroom Dance

This course is an introduction to folk dances typical of foreign countries. Ballroom dances (fox-trot, waltz, cha-cha, polka), square dances, line dances, and current popular dances also will be taught.

PED 106 (1/2 course)
Attaining the Mental Edge

This course focuses on the understanding and application of mental training principles to be utilized in the area of psychology, sports, and job skills. Concepts such as mental imagery, goal-setting, motivation training, and relaxation are introduced. Students will learn about team building, leadership, communication, and motivating skills applicable to personal goals, sports performance, and job-related situations.

PED 107 (1/4 course)
Fly Fishing

This course is an introduction to the fundamentals of fly-fishing. Students will learn basic skills in casting, tying knots and flies, and identifying fishes and insects. Field trips on Saturdays will be part of the course and a fee will be assessed.

PED 108 (1/4 course)
Beginning Tennis

This course serves as an introduction to the sport of tennis. Students will learn the rules, basic mechanics, techniques, and strategies of tennis.

PED 109 (1/2 course)
Weight Training

This course is designed to teach the proper mechanics and benefits of weight training.

PED 110 (1/2 course)
Ice Skating

An introduction to the fundamentals of ice skating, this course emphasizes learning basic skills, balance, proper technique, and safety on the ice.

PED 111 (1/4 course)
Badminton

This course is an introduction to the basic strokes and strategy of badminton.

PED 112 (1/2 course)
Beginning Swimming

This course is an introduction to survival

techniques and basic stroke mechanics to those individuals who cannot swim.

PED 113 (1/2 course)

Aquatics

A course designed to give a general overview of different aspects of aquatics. Stroke mechanics, water safety techniques, conditioning, pool maintenance, competitive swimming, and swimming meet management will be taught. The course is geared for a wide range of swimmers.

PED 114 (1/2 course)

Lifesaving/Lifeguarding

This course provides the basic skill of lifesaving and the specialty knowledge needed to work as a lifeguard. American Heart Association certification in both areas may be obtained.

PED 115 (1/2 course)

Kung Fu—Beginner Level I

This course is an introduction to the basic movements, step forms, and self-defense applications.

PED 116 (1/4 course)

Yoga

This course is designed to teach the fundamental skills for astanga yoga practice, including yoga breathing, sun salutations A and B, and other yoga poses.

PED 117 (1/4 course)

Beginning Golf

This course is an introduction to the fundamental techniques and skill of golf. A greens fee will be assessed for this course.

PED 118 (1/4 course)

First Aid/CPR

This course is designed to give elementary first aid training and basic life support capabilities. Red Cross certification in both areas may be obtained.

PED 119 (1/4 course)

Bowling

An introduction to bowling for fun and recreation, this course emphasizes skill development and knowledge of rules. This class will be held at the bowling alley and a fee will be assessed.

PED 120 (1/4 course)

Soccer

This course is an introduction to the sport of soccer. Emphasis will be placed on skill development, rules, technique, formations, and game strategies.

PED 121 (1/4 course)

Lacrosse

This course introduces the history, basic rules, strategies, skills, and general play of lacrosse.

PED 122 (1/4 course)

Water Aerobics

A water exercise class focusing on cardiovascular conditioning and muscle toning.

PED 123 (1/4 course)

Self Defense for Women

This course is an introduction to basic self defense techniques from a front, side, or rear attack.

PED 124 (1/4 course)

Handball

This course is an introduction to the sport of handball. Emphasis will be placed on basic skill techniques, strategies, and rules of the game.

PED 200 (1 full credit)

Health, Wellness, and Physical Education in the Elementary School

This course will focus on health, wellness, and Physical Education instruction. It is specifically designed to instruct teacher education students in the principals of lifelong wellness beginning in the elementary school with emphasis on motor development and healthy living. A school internship is required.

PED 201 (1/4 course)

Intermediate Racquetball

This course is designed to teach advanced shots, movement patterns, doubles play, and strategies of racquetball.

PED 208 (1/4 course)

Intermediate Tennis

A course designed for students who have already attained the basic skills to play tennis.

Advance skills in ground strokes, serves, volleys, and overhead shots will be taught.

PED 215**Kung Fu—Level II**

This course is designed to teach an intermediate level Northern White Dragon set from Northern 5-Animal Shaolin and the representative defense applications.

PED 216 (1/4 course)**Intermediate Yoga**

This course is a continuation of PED 116 Yoga and is designed to teach advanced astanga yoga in a sequential (Vinyasa) movement pattern.

PED 217 (1/4 course)**Intermediate Golf**

This course is for the intermediate golfer. Emphasis will be placed on shot selection, trouble shots, bunker play, rules, and etiquette of the game. Green fees must be paid by the student.

PHYSICS

Professor: Sheers

Associate Professors: Pettersen (chair), Cannon

Assistant Professor: McCracken

Physics attempts to give a description of the natural world, from quarks to quasars, based upon observation and expressed mathematically. The physics department at W&J has an active, accessible faculty, and a tradition of students who succeed in graduate study, business, and industry. Students of the department benefit from one-on-one interaction, opportunities for research, and a sense of community. The department's offerings include a major and minor in physics, a major in biological physics, and courses in the areas of physics, earth and space science, information technology, and environmental studies.

MAJOR REQUIREMENTS: PHY 101 and 102 or 107 and 108; 209, 234, 313, 319, 341, 342, 390, 441, and 442; and two additional courses at the 300 and 400 levels. MTH 208 is required. PHY 441 and 442 serve as the capstone experience.

Students considering a major in physics are encouraged to start PHY 107 and MTH 151 in the fall of the freshman year. PHY 107 can be started in the sophomore year. Students considering changing to physics as a major should discuss the matter with the department chair.

MINOR REQUIREMENTS: PHY 101 and 102 or 107 and 108; 209, 313, 319, and one other physics course listed in this catalog at the 200 level or higher.

PHY 101, 102 **Introductory Physics**

This course is an introduction to physics without calculus. Emphasis will be given to applications of physics to biological systems. Fall term consists of mechanics, thermodynamics, heat, and sound. Spring term consists of electricity and magnetism, optics, and modern physics. Either PHY 101 or 102 satisfies the laboratory science requirement.

Prerequisite: PHY 101 is a prerequisite for 102

PHY 107, 108 **General Physics**

This course is an introduction to physics using calculus. It is recommended for students with calculus, students in physical sciences or engineering, and students who plan to attend graduate school in the sciences. Fall term consists of mechanics and conservation laws, simple harmonic motion, mechanical waves, heat, and thermodynamics. Spring term consists of electricity and magnetism, simple circuits, optics, special relativity, and modern physics. Analysis and problem-solving are emphasized. Either PHY 107 or 108 satisfies the laboratory science requirements.

Prerequisites or corequisites: MTH 151 for PHY 107; MTH 152 and PHY 107 for PHY 108

PHY 149 **Good Vibrations**

This course is a hands-on, laboratory-based exploration of the physical principles underlying music and the psychophysical aspects of auditory perception. No previous background in science is necessary. Some use of basic algebra is required. This course satisfies the laboratory science requirement.

PHY 209 **Modern Physics**

An introduction to modern physics, including quantum physics and special relativity. The theory is developed from the observed experimental phenomena.

Four hours lecture, three hours lab

Prerequisites: MTH 152 and either PHY 101 and 102 or PHY 107 and 108

PHY 233 **Introduction to Mathematica®**

This course explores how the Mathematica® programming language can be used to solve applied mathematics problems using symbolic computation, numerical computation, and visualization (graphics). Examples will be drawn from the fields of mathematics, science (primarily physics and engineering), and finance

(depending on student interest). The mathematical basis for calculations will be introduced with the topics. This course does not count as a lab science course.

Prerequisite: Mathematics 151 (Calculus I) or permission of instructor. An additional mathematics course is recommended.

PHY 234

Mathematical Methods in Physics

Mathematical techniques that stress physical relevance and application are studied. Coordinate systems, vector functions, power series, ordinary and partial differential equations, numerical integration and differentiation, complex numbers and functions, real and complex matrices, probability, nonlinear equations, and dynamics.

Prerequisites: MTH 152 and either PHY 101 and 102 or PHY 107 and 108 concurrent

PHY 313

Electricity and Magnetism

Electric and magnetic fields, including interaction with matter, Maxwell's equations, and an introduction to special relativity are presented.

Prerequisites or corequisites: MTH 208 and PHY 234

PHY 317

Thermal Physics

Temperature, entropy, heat and work, classical and quantum statistics, cryogenics, and kinetic theory are studied.

Prerequisite or corequisite: MTH 208 or PHY 234

PHY 319

Classical Mechanics

Newtonian mechanics, including motion of a particle and systems of particles in inertial and rotating coordinate systems, central forces and celestial mechanics, motion of rigid bodies, and chaos. An introduction to Lagrangian mechanics is presented.

Corequisite: MTH 208

PHY 322

Electronics

This course is a study of modern electronics and scientific instruments with an emphasis on microelectronics. Measurement and control

applications include AC and DC circuits, power supplies, amplifiers, and logic devices.

Instrumentation concepts include feedback controls, data acquisition, and microcomputer interfacing.

Three hours lab per week in addition to lecture

PHY 327

Biological Physics

This course introduces the student to the physics of living systems, with emphasis on the physics of biological molecules (including DNA, proteins, and lipids) and cellular and system function. A portion of the course will survey topics in current biological physics research.

Prerequisite: PHY 234

PHY 331

Quantum Mechanics

This course is an introduction to the elements of quantum physics with emphasis on the theoretical underpinnings. Basic "facts of life" in the atomic world, wave-particle duality in physical systems, wave-mechanical descriptions, structure of the hydrogen atom, many-electron atoms, and discussion of radiation are studied. Examples from various areas of physics selected to illuminate how the theory works in practice.

Prerequisites: MTH 208 and PHY 209

PHY 341, 342 (1/4 course)

Experimental Physics I, II

This course is an introduction to modern experimental techniques with emphasis on laboratory arts, computerized data acquisition and analysis, and analysis of error. Laboratory exercises are supplemented by timely, topical lectures by staff members and by students enrolled in the course.

PHY 381

Special Topics in Physics

A course with content changing from year to year. During any particular year, the material offered is selected to meet the needs of eligible students for that year. The topic for any given year will be selected from the following: computational physics, electricity and magnetism II, electrical circuits, optics, and special and general relativity.

Prerequisites: PHY 313 and 319

PHY 390 (1/2 course)

Physics Seminar

An introduction to current research, students will study published research articles of current interest in physics or related fields, and present them to the rest of the class. Emphasis is placed on critical reading, oral presentation, study of current experimental and theoretical methods, searching the literature, and reading about the exciting frontiers of physics research.

Prerequisite: Junior or senior standing

PHY 441, 442 (1/4 course)

Senior Research I, II

Independent senior research, under departmental approval and supervision, including literature search, design and construction of experiment, theory, calculation, and analysis, culminating in a bachelor's thesis. The project may be one suggested by the instructor or one proposed by the student and approved by the instructor. This is the capstone experience to the physics major.

PHY 500, 501

Independent Study

POLITICAL SCIENCE

Professors: DiSarro (chair), Benze
Associate Professors: Gai, Misawa
Assistant Professor: Sloat

The political science department recognizes the importance of a discipline-based education within a strong liberal arts tradition. Specifically, the department seeks to impart to our students the essential skills and knowledge for a successful career in a political science-related field such as academia, government, law, or international affairs. Students also master a specific core of discipline-based knowledge and an understanding of their civic responsibilities in a global community. The department provides faculty mentoring, not only through academic advising but also through career counseling and exposing our students to practical political experience.

MAJOR REQUIREMENTS: Political science majors are required to successfully complete 10 courses. The distribution of the 10 courses is as follows: three introductory courses: POL 110, 111, and 120; three courses at the 300 level or above: one course each from American Government/ Public Policy (POL 302, 310, 312, 313, 314, 315, 411, and 412), international/comparative politics (POL 320, 321, 322, 330, and 331), and normative/empirical theories (POL 340, 341, and 342); three electives; and one capstone experience chosen from the following options: a directed independent study, POL 450 field experience, or a 400-level seminar. The department must approve all capstone experiences and students must submit a proposal for their capstone experience to the department chair by March 1 of their junior year.

NOTE: An appropriate philosophy course may satisfy the political science major requirement in normative/empirical theories with the approval of the department chair. MTH 225 is recommended for prospective graduate school students. Foreign language proficiency at the intermediate level or above is recommended for majors who intend to pursue international careers or graduate studies in international/comparative politics.

POL 100 **Principles of Government**

This course is an introduction to political science. Main topics include political ideologies, political culture, democracy and authoritarianism, political participation, governmental institutions, and international politics.

Freshmen only

POL 110 **Origins of American Government**

This course focuses on the origins and evolution of governments; ideas and methods of analysis applicable to the development of American structure and systems relative to the great constitutional issues.

POL 111 **Processes of American Government**

An exhaustive study of principles and policies produced, implemented, and judged by the formal branches of American government, by their subdivisions, and by public opinion and pressure groups.

POL 120 **World Politics**

This course is an introduction to international relations and comparative politics. Topics include states and nations, political systems, political processes, developed countries, developing countries, and politics among states.

POL 210 **Urban Politics**

Traditional structures of government in the context of change and factual and normative aspects of the “New Federalism” are studied.

POL 212 **Political Parties**

A study of party organization, operation, and underlying assumptions in modern democratic societies, the emphasis is on the American party system.

POL 213**Public Policy**

This course is a general introduction to public policy. Through the use of lectures, readings and assignments, students will be introduced to policy concepts such as policy types, agenda building, policy creation and initiation, and policy evaluation. In the last third of the course, these concepts will then be applied to a specific policy area.

POL 220**U.S. Foreign Policy**

This course is designed to introduce students to the basic historical background, concepts, and issues in the study of U.S. foreign policy. The course examines different theories, patterns, sources, and participants in the U.S. foreign policy-making process. The class will focus on American relations with Western Europe, Asia, Latin America, the Cold War/Soviet Union, post-Cold War, the Middle East, and Africa.

POL 230**Politics of Africa**

This course is designed as a basic introduction to the study of African politics. It examines the major theories and issues that exist in African politics today, with a focus on the historical evolution of African political systems (traditional), colonial rule, one-party dictatorships, and military regimes, as well as the crisis of political legitimacy and Africa's search for democracy.

POL 231**Politics of China**

This is an introduction to Chinese politics. After a brief look at the modern Chinese political history from 1840 to 1949, the course focuses on the Chinese political and economic system since 1949. The communist period under Mao between 1949 and 1976 will be compared to the post-Mao reform period since 1978.

POL 232**Politics of the Middle East**

This course is designed to introduce students to the basic historical background of the Middle East, and the contemporary impact of the region on world politics, including terrorism. The Middle East region provides a variety of

complex cultural, social-linguistic groups, religions, and political traditions. The dominant political cultures of the region offer a unique understanding of politics and society in all the different Middle Eastern countries represented.

POL 240**American Political Thought**

This course is a study of the political ideas of selected American statesmen and philosophers from the colonial period to the present with attention on the connection between theory and practice in the American republic. Topics addressed include liberty, equality, constitutionalism, democracy, and individual rights.

POL 250**Special Topics**

This course is a study of selected problems, issues, and cases in political science.

POL 302**The Modern State**

This course examines the policy process in the modern state with emphasis on agenda building, models of the policy process, case studies of specific policies, and the evaluation process.

POL 310**Public Administration**

This course is a study of the general principles and processes of public administration as demonstrated by the policies of public administrative agencies.

Prerequisite: POL 111

POL 312**Women and Politics**

This course provides an overview of women in politics, beginning with the colonial experience and the writing of the Constitution through women's suffrage to women as voters, members of interest groups, political candidates, and office holders. Policy issues related to gender, such as employment equity and reproductive rights, are also examined.

POL 313**Environmental Policy**

This course is an introduction to environmental policy. Topics covered include a history of

environmental policy, identification of major policy actors (both inside and outside of government), the conflict between environmental policy and natural resource policy, and alternatives to the regulatory approach.

Prerequisite: POL 213 is suggested but not required

POL 314

The American Presidency

An analysis of the constitutional and political posture of the chief executive within the American political system, this course gives special consideration to the nature and scope of executive power and to decision making in the White House. Discussions and lectures will focus on topics such as presidential selection, accountability, personality, and the comparative analysis of selected presidents.

Prerequisite: POL 100, 110, or 111, recommended but not required

POL 315

The Legislative Process

This course is an analysis of the legislative process in the United States government with a focus on Congress. Emphasis is placed upon constitutional powers and limitations, member goals, congressional elections, congressional structures, and the relationships between Congress and other parties (the executive branch, judicial branch, interest groups, political parties, etc.) in the effort to construct policy.

Prerequisite: POL 111 or permission of instructor

POL 320

International Politics

An in-depth study of international relations, main topics include theories of international relations, international organizations, trade and monetary issues, peace and security issues, politics of the global north and the global south, and global ecopolitics.

Prerequisite: POL 120 or permission of the instructor

POL 321

International Law

The aim of this course is to examine and to introduce to students the actual working of law within the present arrangement of states (state system), the inevitable limits of this type of legal order, and the possible role of international legal

order that transcend these limits. The emphasis of the course will be on international organizations.

Prerequisite: POL 120 or permission of the instructor

POL 322

International Political Economy

This course deals with the dynamic relationships between politics and economics in the international arena. Major topics include theories of international political economy, international trade relations, the international monetary system, globalization, the global north and the global south, and the global environment.

Prerequisite: POL 120 or permission of the instructor

POL 330

Comparative Politics

This course is an introduction to the study of comparative politics. The course aims at introducing the student to the theory and basic concepts of comparative politics, such as political system, forms of governments, process, and policy. These concepts will be introduced through the comparative study of different European parliamentary political systems, including the European Union.

Prerequisite: POL 110 or 120

POL 331

Politics of Developing Countries

This course is an examination of politics in the developing countries and transitional democracies. The course focuses on political development, totalitarian dictatorships, military authoritarian regimes, and the transitional democracies in Russia and Eastern Europe, Asia, Africa, Latin America, and the Middle East.

Prerequisite: POL 110 or 120

POL 340

Research Methods

This course is an introduction to empirical research methods in political analysis. Main topics include concepts and hypotheses, operationalization and measurement, research design, survey research, data collection, data processing, and data analysis.

Prerequisites: Any two political science courses

POL 341

Political Thought: Pre-Modern

Analysis and discussion of selected thinkers and doctrines in Western political thought from the Greeks through the Reformation thinkers. An effort is made to enter as participants into this tradition of discourse. The emphasis is on primary sources.

Prerequisites: POL 110 and 111

POL 342

Political Thought: Modern

This course focuses on the writings and ideas of great political philosophers and the most significant political theorists from the sixteenth to the twentieth century (Machiavelli to Mao). The course will explore the concepts of the modern state, political structure and authority, Western political traditions, revolutions, and non-Western political ideas in this time period.

Prerequisites: POL 110 and 111

POL 350

Special Topics

This course is an advanced study of selected problems, issues, or cases in political science.

Prerequisite: Dependent on the topics covered

POL 410

Seminar: American Politics/Public Policy

A seminar for advanced political science majors, intended as one of the alternatives for the political science capstone experience. This particular seminar is designed primarily for students preparing for graduate study in American government, public policy, or the law.

Prerequisites: POL 111, 213, and junior status

POL 411

Constitutional Law, Politics, and the Federal System

This course is an analysis of significant judicial decisions and political forces that have shaped the American federal system and its institutions.

Prerequisite: POL 111

POL 412

The Supreme Court and the Bill of Rights

This course is an examination of major judicial decisions and political conflicts that have shaped

and defined the guarantees of the Bill of Rights and the Fourteenth Amendment.

Prerequisite: POL 411 or permission of the instructor

POL 420

Seminar: International Relations/Comparative Politics

A seminar for advanced political science majors, intended as one of the alternatives for the political science capstone experience. This particular seminar is designed primarily for students preparing for graduate study in international studies or comparative politics.

Prerequisites: POL 320 or 330 and junior status

POL 450

Field Experience

This course is an educational experience designed to supplement traditional classroom work. It is intended as one of the alternatives for the political science capstone experience. The student is provided with a unique opportunity to gain substantive knowledge as well as practical experience as to the inner workings of government. The field experience may include not only working in governmental institutions but also in campaign organization, and nonprofit political institutes as well as legal offices.

Prerequisites: POL 110, 111, and senior status

POL 500, 501

Independent Study

PRE-LAW PROGRAM

Professor: DiSarro (Legal Profession
Committee chair)

The Pre-Law Program advises students interested in the legal profession and helps prepare students for admission to law school. Although no specific courses are required for pre-law students and such students may major in any subject they choose, pre-law students are encouraged to take challenging courses in accounting, English composition, and literature as well as law-related courses in economics, history, and political science. Further information about the Pre-Law Program is available from Dr. Joseph DiSarro.

PROFESSIONAL WRITING

Coordinator: Harding

Affiliated Faculty: Easton, S. Fee, T. Fee, Fleury,
Hyland, McEvoy, Shaughnessy, Taylor, Troost,
Woodard

The interdisciplinary program in professional writing offers a concentration that complements all academic majors. Students who complete the concentration should be able to write accurate, clear nonacademic prose for a variety of audiences as well as research and analyze a wide range of topics.

CONCENTRATION REQUIREMENTS:

Four courses from two different departments. Two must be selected from the foundational courses: ENG 200, 201, 203, or ITL 271; two additional courses can include more from the list of foundational courses, or COM 250, COM 320, COM 360, ENG 301, ESP 301, FRN 319, FRN 320, GER 371, GER 372, ITL 370, MUS 310, PHL 232, SPN 319, SPN 320, and other courses approved by the coordinator; a graded internship approved by the coordinator can replace one of the four required courses.

Students interested in careers as professional writers should elect courses within their majors that allow them to develop their research skills and choose electives that expand their general knowledge. For example, those interested in science writing should take several courses in the sciences; those interested in arts writing and reviewing should take courses in theatre, music, and art history. Future journalists should certainly take courses in political science and economics. Because technology has become central to the field, students should develop high-level proficiency with word processors and competence in desktop publishing, Web design, or both. Students should also seek appropriate pre-professional experiences, such as writing for college publications or interning with business, government, or nonprofit organizations.

PSYCHOLOGY

Professors: Cavoti (chair), Crabtree, Myers
Associate Professors: Bennett, Wilson, Klitz
Assistant Professor: Grime

Psychologists study behavior from a wide range of perspectives that include social, clinical, physiological, developmental, organizational, and cognitive psychology. As a member of the science division, the psychology department employs empirical methods to learn about behavior and the variables that affect it. The department also participates in a wide range of research and applied programs that intersect our discipline including neuroscience; mind, brain, and behavior; child development and education; and human resource management.

MAJOR REQUIREMENTS: All students must complete a minimum of eight courses in psychology. PSY 101, 102, 215, and one advanced laboratory course from 405, 406, 425, 427, 465, 475, or 485 are required of all psychology majors. PSY 215 and the advanced laboratory course must be completed successfully at W&J. Students must also elect two of their remaining courses in psychology from PSY 225, 235, 245, 265, 275, 285, and 295. In addition, students are required to take MTH 225. The department also recommends that students take ENG 200 and COM 220.

MINOR REQUIREMENTS: All students must successfully complete a minimum of six courses in psychology. PSY 101, 102, and 215 are required of all minors. PSY 215 must be successfully completed at W&J. All other courses should be considered electives. At least two elective psychology courses must be taken from PSY 225, 235, 245, 265, 275, 285, and 295.

CHILD DEVELOPMENT AND EDUCATION MAJOR: The child development and education major is offered by the psychology department in cooperation with the education department. (See page 53.) The major consists of the following courses: EDU 201, 207, 301, 302, 303, 304, 406, PSY 101, 102, 225, 265, 275, either PSY 330 or EDU 403, and either EDU 407 or 408. EDU 407 or EDU 408 serves as the capstone for the major. EDU 407 is the capstone experience for students who are also

seeking elementary education certification. EDU 408 serves as the capstone experience for students not seeking teacher certification. Students may choose to major in either psychology or child development and education; they may not major in both.

ELEMENTARY EDUCATION

CERTIFICATION: Students seeking teacher certification in elementary education K–6 must major in child development and education. In addition, they must complete the admission procedures and take the content courses required for certification as part of the elementary education certification program.

HUMAN RESOURCE MANAGEMENT

EMPHASIS: The human resource management emphasis is open to majors in business administration or psychology who wish to prepare for the study of human resource management in graduate school and/or pursue a career in human resource management. The details of this program may be found on page 98. To complete this program, a psychology major must complete the following courses as part of the major: PSY 101, 102, 225; one from 295, 303, or 392; and one from 235, 245, 324, or 330. In addition they must complete: ECN 101; ACC 211, 212; and BUS 301, 319 and 350. It is also strongly recommended that the student complete an internship in an industrial/organizational setting. Students interested in this program are advised to contact Dr. Myers of the Department of Psychology or the chair of the Department of Economics and Business.

MIND, BRAIN, AND BEHAVIOR

PROGRAM: The Mind, Brain, and Behavior Program represents an interdisciplinary inquiry into the determinants of behavior. The program seeks to introduce students to this interdisciplinary undertaking by examining how sophisticated systems carry out functions such as vision, memory, and language. Focus is on understanding the determinants of behavior from multiple perspectives. The details of this program may be found in the catalog on page 114. Psychology majors wishing to complete this program must take one of the following courses as part of their major: PSY 225,

PSY 265, PSY 285, or PSY 311. In addition psychology majors must take: MMB 100: Mind, Brain, and Behavior, BIO 101, BIO 102, and two from PHL 123, PHL 125, PHL 220, and PHL 250.

NEUROSCIENCE EMPHASIS: The neuroscience emphasis represents an interdisciplinary program that can be pursued by students majoring in biology or psychology. Please refer to the catalog listing for further information on these courses of study. Students majoring in psychology must successfully complete PSY 500 or 501, or an approved research experience as part of the emphasis. In addition to their psychology major, students pursuing the neuroscience emphasis must successfully complete NSC 210, 300, and 400.

NEUROSCIENCE MINOR: Students not majoring in biology or psychology must complete the equivalent of six courses for the minor. These courses include two introductory science courses from two different disciplines (BIO 101 or 102, CHM 160, PHY 101 or 107, or PSY 101), the three core neuroscience courses (NSC 210, NSC 300, NSC 400), and a neuroscience-related research project that may be fulfilled by either an on-campus tutorial or independent study project, or a summer or Intersession internship.

**PSY 101, 102
Elementary Psychology**

This course is a study of the basic concepts in the scientific study of behavior. The first term emphasizes the scientific method, physiology, sensation, perception, learning, and memory. The second term considers such topics as intelligence, emotion, personality, behavior disorders, therapy, and social psychology.

Prerequisite: PSY 101 is a prerequisite to PSY 102

**NSC 210
Introduction to Neuroscience**

In this course, students will be introduced to the world of the neuroscientist. Students will learn the subject matter of neuroscience and gain insight into the interdisciplinary nature of the field, bridging psychology and biology, as well as topics in physics and chemistry. To this end, the course will examine various topics from the perspectives of these different disciplines.

Examples of topics may include cognition, motor systems, emotion, sensory systems, development, consciousness, evolution, and pharmacology. Each module will include lecture and background information, a discussion on a specific research question within the topic, and some type of demonstration or applied experience.

Offered: Intersession

Prerequisites: BIO 101 or 102, PSY 101, CHM 160, or PHY 101 or 107

**PSY 215
Experimental Psychology**

An introduction to the empirical methods employed in the scientific study of behavior. The student will gain experience in collecting psychological data and reporting of procedures and results. Problems involved in experimental design and applied statistics will also be discussed.

Three hours lecture-recitation, three hours lab

Prerequisites: PSY 101 and 102, and MTH 225 (MTH 225 may be taken concurrently)

**PSY 225
Social Psychology**

This course is an examination of the ways in which other individuals, singularly or in groups, influence an individual's behavior, attitudes, and beliefs. Topics such as conformity, altruism, aggression, obedience, attitude change, person perception, affiliation, and group dynamics will be examined.

Prerequisites: PSY 101 and 102

**PSY 235
Theories of Personality**

Theories of the development, structure, and function of personality, together with relevant experimental evidence, will be examined in the interest of evaluating their adequacy.

Prerequisites: PSY 101 and 102

**PSY 245
Abnormal Psychology**

This course studies the principal forms of mental disorder, with emphasis upon their causes, symptoms, course, and therapy.

Prerequisites: PSY 101 and 102

PSY 265**Developmental Psychology**

This course examines the nature of human development from conception through adolescence. Material covers physical, cognitive, and social development, with an emphasis on understanding the interacting influence of biological and environmental factors. Topics are presented in the context of major developmental theories and empirical research, with attention to the methodological issues pertinent to the study of developmental change.

Prerequisites: PSY 101 and 102

PSY 275**Cognitive Psychology**

This course is an introduction to cognitive psychology. Topics include how people perceive and attend to visual and auditory information; a detailed understanding of the process of memory; basic processes of reading and language; problem solving and decision making; and artificial intelligence. Students will take an experimental approach to the study of cognition, which will include reading primary source articles and participation in a set of laboratory studies that replicate many of the classic studies in cognitive psychology.

Prerequisites: PSY 101 and 102

PSY 285**Physiological Psychology**

This course provides information on how physiological processes control behavior. Basic neuroanatomical and neurophysiological processes will be used to explain the following human and animal behaviors: sensation, movement, sex, thirst, hunger, emotion, aggression, learning, memory, and mental disorders.

Prerequisites: PSY 101 and 102

PSY 295**Industrial/Organizational Psychology**

This course examines psychological principles as they apply to industrial and business enterprises. Such areas as selection and placement, leadership, satisfaction, morale, training, small group interaction, and labor-management relations will be considered.

Prerequisites: PSY 101 and 102

PSY 303**Organizational Behavior Management**

This course is an in-depth examination of the application of behavior analysis to industrial and business settings. It begins with a thorough review of the basic concepts of behavior analysis, but emphasizes the application of these techniques. Several actual cases of managerial problems in business and industry will be examined carefully, along with their solutions. Since students will be expected to develop their own intervention plans to address actual management challenges, this course is especially valuable to those individuals planning careers in applied psychology, business, or industry.

Prerequisites: PSY 101 and 102

PSY 311**History and Systems in Psychology**

A course examines the influence of philosophical antecedents, early scientific contributors, and major learning theorists to the development of psychology. Theories and systems will be critically evaluated in terms of contributions and how adequately they explain and predict behavior.

Prerequisites: PSY 101 and 102

PSY 321**Psychology and the Environment**

Students will focus on the relationship of our behavior and experiences with the natural and man-made environments. The course will be divided into three major sections. Section I will be introductory and will examine what environmental psychology is and how it studies its questions of interest. Section II will examine the natural environment and topics like noise, temperature, and natural disasters. Section III will examine the man-made environment and topics like crowding, cities, work and leisure, and personal space. (Counts as a course for the Environmental Studies Program)

Prerequisites: PSY 101 and 102

PSY 324**The Psychology of Communicating**

With consideration of the communication source, message characteristics, and channels of communication as a foundation, students will analyze a variety of communication situations and attempt to learn what contributes to their success or failure. Topics will include persuasion,

influence, nonverbal communication, and mass media with particular emphasis on advertising. The course will examine how psychological factors play a role in each.

Prerequisites: PSY 101 and 102

PSY 326

Psychology and the Law

This course will focus on applications of personality, social, cognitive, and clinical psychology to the courtroom. The legal system's informal theories about human behavior will be compared to what we know about the psychology of human behavior. A number of topics will be explored in depth, including scientific jury selection, the accuracy of eyewitness testimony, and the role of psychologists as expert witnesses.

Prerequisites: PSY 101 and 102

PSY 330

Principles of Psychological Assessment

This course is an examination of the use of tests within psychological work and research. The psychometric issues of tests and of test construction will be examined. Also examined will be the current varieties of psychological tests in use including intellectual, ability, personality, clinical, projective, neuropsychological, interest, and occupational tests.

Prerequisites: PSY 101 and 102

PSY 347

Special Topics in Psychology

This seminar emphasizes contemporary theories and issues in psychology and related areas.

Prerequisite: PSY 102

PSY 370

Sensation and Perception

This course is an introduction to the five basic senses—touch, smell, taste, hearing, and vision. The first half of the term will be devoted to discussing the basic aspects of vision, including the biology of the visual system, color perception, identification of objects, depth perception, and visual illusions. The second half of the term will be devoted to hearing, touch, smell, and taste. The course will take a functional approach to the senses, describing not only how the senses work, but what the senses are used for, and how

impairments in the senses can have a profound influence on everyday life.

Prerequisites: PSY 101 and 102

PSY 380

Drugs and Behavior

This course studies the effects of psychoactive drugs on behavior. The topics to be covered include the physiological basis of drug effects; drug pharmacology; the behavioral effects of the most-often used prescription and non-prescription drugs (including alcohol); and the psychological, social, and legal consequences of drug use.

Prerequisites: PSY 101 and 102

PSY 392

Psychology of Management

This course is an extension of industrial psychology, which focuses upon the problems of management in industry. Supervisor-subordinate relations; management selection, placement, and training; decision making; and special problems that managers are likely to encounter will be stressed.

Prerequisites: PSY 101 and 102

PSY 405

Advanced Laboratory in Learning

This advanced laboratory course explores methods and findings from classical learning theory. Topics include classical and operant conditioning and observational and spatial learning. The course includes experiments with both human and animal subjects. No invasive techniques are used.

Three hours lecture, three hours lab

Prerequisite: PSY 215

PSY 406

Advanced Laboratory in Perception and Cognition

This advanced laboratory course will introduce techniques necessary to perform experiments in perception, memory, and reasoning. At the end of the course, students will design and perform their own experiment using the techniques learned in the course. The lecture portion of the course will be organized around three main topics, sensory information processing, memory,

and thought processes.

Three hours lecture-recitation, three hours lab

Prerequisite: PSY 215

PSY 425

Advanced Laboratory in Social Psychology

This advanced laboratory course is designed to explore the methods of investigation used in social psychology, the study of how people think about, influence, and relate to one another. These methods will be explored first hand through a series of student-designed research projects as well as through class lectures/discussions and assigned readings of primary research articles and other sources.

Three hours lecture-recitation, three hours lab

Prerequisite: PSY 215

PSY 427

Advanced Laboratory in Social Cognition

This is an advanced laboratory course designed to introduce research methods used in social cognition—the interface between social psychology and cognitive psychology. These scientific methods will be explored first-hand through student-designed research projects. Selected topics in social cognition will be explored in depth.

Three hours lecture-recitation, three hours lab

Prerequisite: PSY 215

PSY 430

Seminar in Psychotherapy and Counseling

This course provides a systematic and critical examination of major traditional, as well as current, theories and techniques of psycho-therapy and counseling. Emphasis will be on the examination of the theoretical bases of psycho-therapy and counseling systems and techniques, and on the application of such theoretical principles in the remediation of psychological disturbances.

Prerequisite: PSY 235 or 245

PSY 465

Advanced Laboratory in Developmental Psychology

This course examines the application of the scientific method to the study of developmental phenomena in the field of psychology, with an emphasis on the social and cognitive domains.

Students will learn about methodological issues encountered in developmental research and gain experience in searching for, reading, and discussing empirical work in the field. Students will apply their knowledge and skills by conducting a term-long research project that will be presented in oral, written, and poster form at the end of the term.

Prerequisite: PSY 215

PSY 475

Advanced Laboratory in Sensation and Perception

This advanced laboratory course is designed to examine the methods of research used in sensation and perception, specifically in the area of reading, including the study of eye movements in reading. The course will include the analysis and presentation of material from primary source readings (journal articles and/or book chapters) related to the sensory and perceptual processes involved in reading. The course will culminate in student research projects, which will include research design, execution of the study, analysis of data, and presentation of the results in a written research report and participation in a class poster session.

Three hours lecture-recitation, three hours lab

Prerequisite: PSY 215

PSY 485

Advanced Laboratory in Behavioral Neuroscience

This upper-level laboratory course examines basic neuroanatomical and neurophysiological processes used to explain behavior. Research methodology and instrumentation will be the major features of laboratory exercises.

Three hours lecture-recitation, three hours lab

Prerequisite: PSY 215

PSY 499

Psychology Practicum

This course is a supervised field experience in some approved area of human behavior. Areas may include institutional work, school psychology, special education, etc.

Prerequisite: Selection and screening by department

PSY 500, 501

Independent Study

RELIGIOUS STUDIES

Professor: Vande Kappelle (chair)

The mission of the religious studies department is to acquaint students with the role religion has played and continues to play in the total development and life experience of humanity. Courses taught by the department encourage students to combine intellect with passion, scholarship with service, and to integrate religious and moral values into lifestyle and career in ways that will be wholesome and beneficial to them and to others.

MINOR REQUIREMENTS: Six courses, including a minimum of four courses in the Department of Religious Studies. Of these, at least one course must be from the advanced (300) level. For courses outside the department that are applicable to the minor, consult the list of approved courses. Only one Intersession course may be used in fulfillment of the minor.

In some rare cases, students may petition the department for exceptions to these requirements. Such petitions must be submitted to the department for approval in advance.

REL 101

Introduction to Religion

This course is an examination of religious experience and beliefs and their expression in symbol, ritual, myth, theology, ethics, and community. Using a comparative case study approach, this introduction to the field of religious studies offers the student an opportunity to encounter and reflect upon religion in human life. The course exposes students to basic religious questions, concepts, and phenomena from different religions and different historical periods.

REL 102

Religion in America

This course is an introduction to the history, themes, and issues in American religion from the precolonial period to the present. This course examines the principal religious traditions and movements that have shaped American culture and politics, including Native

American and African American traditions, Puritanism, Catholicism, Judaism, revivalism, religious movements originating in America, American civil religion, the emergence of fundamentalism, the religious roots of the civil rights movement, the changing role of women in religious life and thought, and the contemporary challenge of religious pluralism in American society.

REL 103

Introduction to Judaism: Its History, Beliefs, and Practices

A survey of Judaism and its emergence from Israelite religion into the rabbinic culture of interpretation and halakah (Jewish law). Using both a historical and thematic approach, the course focuses upon key periods of development and upon the major ideas, movements, and practices central to ancient and modern Jewish life and thought. Attention is paid to the role of sacred Jewish texts and interpretation, community, covenant, and halakahic observance as well as the crises, challenges, and choices confronting Judaic faith and practice today. The course includes such topics as anti-Semitism, the Holocaust, and the state of Israel.

REL 104

Introduction to Christianity: Its History, Beliefs, and Practices

An essential introduction for students who want to understand the dynamics of the world's most numerous religion. Using a historical approach, the course examines the biblical sources, the centrality of Jesus, the essential doctrines of Christian theology, and what it means to be a Christian—Eastern Orthodox, Roman Catholic, and Protestant—in the modern world.

REL 105

Introduction to Islam: Its History, Beliefs, and Practices

This course is a study of the origin and growth of Islam as a religious, cultural, and political force in the world. Beginning with the founding by the Prophet Muhammad in the early seventh century, the course presents a detailed explana-

tion of the Qur'an, as well as the core of beliefs and obligations. The course also explores the content and practical applications of the Sharia (Islam's holy law); the differences between the Sunnis and Shiite forms in their historical, theological, and sociopolitical perspectives; Sufism; and Islam's strength and influence in the contemporary world in addition to social factors such as ethnicity, nationality, and gender.

REL 115

Human Origin: Scientific and Christian Perspectives

Explanations concerning human origin touch at the core of what it means to us to be human. This class will explore the topic of human origin from scientific and Christian perspectives. The nature and philosophy of science, the historical interaction between Christianity and science, and the scientific and creationist views that offer explanations for our origin will be discussed.

REL 145

Faith and Reason

This is an introductory-level course exploring the relationship between reason and faith, particularly as they relate to the groundings of religious belief. The course will explore both classical and contemporary readings. This course is the same as PHL 145.

REL 201

The Hebrew Bible (Old Testament) in Context

An academic study of the Hebrew scriptures in their historical and cultural setting, designed to acquaint students with the central beliefs and moral values that helped shape Western society. This course examines the major themes of the Old Testament (e.g. creation, fall, exodus, covenant, promised land, royal theology, prophecy, wisdom, and apocalyptic) as well as its sources, types of literature, principal narratives, main characters, and religious value.

REL 202

The New Testament in Context

An academic study of the literature of the New Testament in its historical and cultural setting, designed to acquaint students with the central beliefs and moral values underlying the Christian religion. This course examines the life and

teaching of Jesus Christ, the origin and early history of the Christian Church, the teachings of Paul and the apostles, and the Book of Revelation.

REL 203

Biblical Studies

A study of a selected book or topic from the Bible.

Normally taught during Intersession

REL 204

World Religions (Non-Christian)

A general introduction to the major living religions (including primal religious expressions of North America and Africa, Judaism, Islam, Hinduism, Buddhism, Confucianism, and Daoism), to the leading problems of religious thought, and to the alternative approaches of world religions to ultimate questions concerning the meaning of human life.

Normally offered during summer session

REL 205

Western Religious Traditions

Western civilization has been shaped decisively by three monotheistic religious traditions—Judaism, Christianity, and Islam. Despite their distinctiveness, these traditions share a common background and numerous historical convergences. Using a comparative approach, this course examines such topics as scripture and tradition; monotheism; authority; worship and ritual; ethics; material culture (e.g., architecture, art, food, musical instruments, and ritual objects); religion and the political order; and the presence of radical (fundamentalist) forms of expression within these traditions that is increasingly shaping the course of world history.

REL 206

Eastern Religious Traditions

A general introduction to the major Asian religious traditions, including Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Daoism, and Shintoism as well as the place of Islam in historical and contemporary Asia. Using a historical and geographical approach, this course examines the religious literature, the central beliefs, and the sacred practices of each tradition in addition to such factors as ethnicity, nationality, and gender.

REL 208**Adventures in Spirituality**

Understanding religion both as art form and as means toward personal and social transformation, this course introduces students to different understandings of spirituality; to stages of spiritual growth and formation; to various spiritual themes, representative thinkers, and practitioners (primarily, though not exclusively, from the Christian tradition); to the established spiritual disciplines; and to goals and deterrents of spirituality. Students will have the opportunity to examine their own personality (and spirituality) type.

REL 215**Faith and Film**

This course examines basic religious questions (e.g., the existence of God, the problem of free will, the immortality of the soul, the problem of evil, the notion of divine revelation, the nature of religious experience) in the light of the art form of contemporary film.

REL 232**Sociology of Religion**

This course is a study of religion as a social institution, including its historical development, its organization and operation, its effects on individuals, and its relation to society as a whole. Special attention is given to contemporary issues of secularization, new religious movements, civil religion, the rise of evangelical and fundamentalist movements, religion and politics, and religion and health. This course is the same as SOC 232.

REL 245**The Philosophy of Religion**

Selected topics related to religion: e.g., the nature and significance of religious experience, proofs and evidence for the existence of God, the problem of evil, and the immortality of the soul. This course is the same as PHL 245.

REL 247**Topics in Religion**

A course in religious studies varying from year to year. The topic or subject to be studied in any term will be published in the preregistration bulletin.

REL 301**The Development of Western Christianity**

A study of the growth and development of Christianity against the backdrop of select ideologies and worldviews that have influenced Western civilization from the classical Greek period to the present. Important issues of human existence as well as theological concerns will be examined from an historic Christian perspective, including the meaning of God; human nature; epistemology (the sources of knowledge); cosmology (the nature and meaning of reality); ethics and social relationships; and the development of such Christian doctrines as the Trinity, Christology, salvation, sin, the Church, the sacraments, eschatology, and the relation of Christianity to other world religions.

Prerequisite: One previous religious studies course or permission of the instructor

REL 302**Global Christianity**

Though the story of Christianity has been inextricably bound up with that of Europe and European-derived civilizations, above all in North America, for most of its history Christianity was stronger in Asia and North Africa than in Europe. During the past century, the center of gravity in the Christian world has shifted inexorably southward to Africa, Asia, and Latin America. This course examines the spread of Christianity through the non-Western world, focusing on the inculturations of the past and on concepts of cultural synthesis that are transforming this missionary religion from a primarily Western phenomenon to a chiefly southern one. Particular emphasis is placed on such recent developments as liberation theology, feminist perspectives, evangelicalism, and neo-Pentecostalism. Topics include relations between Christians and non-Christians—particularly Muslims—in regions of the world marked by conflict and instability.

Prerequisite: One previous religious studies course or permission of the instructor

REL 310**Europe Transformed: Renaissance and Reformation, 1450–1650**

This course is a study of the cultural and religious transformation of Europe focusing on

the emergence of humanism, the rise of Protestantism, and the resurgence of Catholicism. This course is the same as HIS 302.

REL 355**Global Buddhism**

This course is an examination of the philosophical and religious transformations of Buddhism as it was spread from India to other parts of the world. Particular emphasis is placed on early Buddhist beliefs and practices in India, and on later expressions in Tibet, China, Japan, and the contemporary United States. This course is the same as HIS 355.

The course is limited to juniors and seniors.

REL 500, 501**Independent Study**

RHETORIC

Professor: R. Easton

Associate Professors: Fleury (program director),
Frank, McEvoy

Assistant Professor: Harding

The interdisciplinary concentration in rhetoric serves as a complement to an academic major and aims to give students a foundation for developing their analytic and communication skills. Rhetoric is the “art by which discourse is adapted to its end.” In other words, students study and practice effective and ethical oral, written, and visual communication. To complete the concentration, students must take four courses from at least two different departments. Courses include COM 120, 218, 220, 240, 318, 320, 360 or ENG 200, 201, or 301. Other courses may count toward the rhetoric concentration with the written consent of the rhetoric concentration program director.

RUSSIAN

Professor: Scott

The end of the Cold War signals a new urgency in the study of Russian as the Federation moves to consolidate its position in the emerging power structures of the new century. History, language, and cultural tradition conspire to create an interesting and timely field of study. Courses in Russian language are offered through the Department of Modern Languages. Students with a background in Russian should consult with Dr. Scott about appropriate placement.

PLACEMENT PROCEDURES: All students taking a language at W&J must take the student information questionnaire prior to enrollment in that language. Students with a background in this language must also complete the computerized adaptive placement exam (CAPE). Incoming freshmen will usually take the exam prior to registration during summer orientation, but the exam may be administered at any time. The results of the questionnaire and exam will usually determine the level at which a student will begin a course of study in the language. A student who falls at the high or low end of a scoring range may be placed higher or lower than the course indicated, depending on the number of years of language the student has had. Placement in these situations is done in consultation with a faculty member from the relevant program. Because of the varying requirements for completing a major or minor in language, it is to the student's advantage to begin at the highest level possible.

NOTE: Students who have completed coursework at one level may not take courses at a lower level without departmental approval.

RUS 105, 106 Elementary Russian I, II

Fundamentals of grammar; regular review of the essentials; study of prose texts related to the grammar and vocabulary of each unit.

Prerequisite: RUS 105, or permission of the instructor, is a prerequisite for RUS 106

RUS 207, 208 Intermediate Russian I, II

This course includes a review of all grammar

with expanded categories of verb application and readings of graduated difficulty from Russian literature. Oral drill is emphasized as well as accumulation of vocabulary.

Prerequisites: RUS 106, or permission of the instructor, is a prerequisite for 207; RUS 207, or permission of the instructor, is a prerequisite for 208

RUS 212 Historical and Contemporary Moscow

A two-week course in late May/early June at the International University of Moscow, an education institution with which Washington & Jefferson College has a formal agreement. The course will consist of 24 contact hours in Russian language taught by IUM Russian language instructors and six hours of formal lectures in English presented by specialists in economics, culture, politics, and history. Sightseeing will include the Kremlin; Park Pobeda (Victory Park), commemorating the Soviet victory over Nazi Germany in World War II; the tomb of the Unknown Soldier in the Alexander Gardens, adjacent to the Kremlin; Novodevichy Cemetery and Convent; Tretyakov Gallery of Russian Art; the State Duma; the Bolshoi Theater; and an overnight to the ancient cities of Vladimir and Suzdal. This is the same course as HIS 321.

Students who register for HIS 321 must select a historical and/or cultural topic and have it approved by the instructor before the course begins. The student will do some reading and research on this topic before departure. Following completion of the Moscow portion of the course, the student will research and write a paper of 15 to 20 pages on that topic. The paper will be submitted six weeks after returning from Russia.

NOTE: HIS 321/RUS 212 is treated as if it was a January Intersession course, except that it occurs at the end of the academic year. In order to comply with the billing procedures of the College and not be charged extra for this course, the student must not exceed 36 credits, normally nine courses during the academic year. It is recommended that the student actually register for the course during the fall

preregistration for Intersession and spring of the academic year.

RUS 309, 310

Advanced Russian I, II

This is a course in the fundamental constructions and common idioms of contemporary Russian with readings and excerpts taken from the classics as well as from various aspects of Russian professional life. This course is intended to familiarize students with the language of government, economics, social sciences, the arts, and Russian journalism.

Prerequisites: RUS 208, or permission of the instructor, is a prerequisite for 309; RUS 309, or permission of the instructor, is a prerequisite for 310

RUS 500, 501

Independent Study

SOCIOLOGY

Professors: Greb, Miller (chair)
Associate Professors: Hyden, Krol

Students seeking careers in health care, law, business, education, and other occupational fields are benefited by knowledge of “how the system operates.” Sociology provides an introduction to the components of society as well as specialized examinations of the institutions of society—family, education, economy, government, and religion. Group interaction—an essential in sociological discussion—is a focus of most sociology courses. Sociology courses at all levels add a dimension of sophistication to the understanding and utilization of events in the “real world.”

MAJOR REQUIREMENTS: Majors are required to complete successfully 10 sociology courses including SOC 201, 301 or 412, 495 (capstone experience), and three other courses numbered 300 or above. Courses previously listed as SOC/ANT will count as electives toward the sociology major. Math 225 counts as an elective in the sociology major.

MINOR REQUIREMENTS: Six courses including SOC 201; two from among SOC 101, 300, 301, 302, or 412; and three other courses in sociology, which may include additional core courses. At least two of the six must be 300- or 400-level courses; no more than two 100-level courses may be counted toward the minor.

EMPHASES: Majors may elect the following emphases: Comparative Sociology/Global Studies—five courses from ANT 175, 263, 276, SOC 255, 262, 347, 251/351, and SOC 261 and 363 or EVS 260; Institutions and Social Structures—five courses from ANT 263 or EVS 201, SOC 225, 232, 233, 234, 240, 302, 335, 336, and 361; Social Problems—five courses from SOC 120, 223, 224, 225, 226, 234, 241, 323, 335. Students should consult their departmental advisor to plan these specialized course programs. Pre-law students are encouraged to join the Pre-law Society and to take the practice LSATs.

SOCIAL SCIENCE CERTIFICATION:

Students seeking teacher certification in social science 7-12 must complete the admission and course requirements in education and have an academic major in psychology or sociology. Students must complete the following courses in anthropology, psychology, and sociology: ANT 175; PSY 101, 102, 215, 366, and one of PSY 225 or 301; and SOC 101, 120, 201, and 233.

SOC 101

Introduction to Sociology

This course is an introduction to the study of societies and social interaction by use of the sociological method. In addition to examining the basic structures and workings of societies, the course will explore both usual and unusual types of social behavior.

SOC 120

Social Problems

This course is a study of major problems in American society, their causes, and the effect they have on both a broad, structural level in society and on individuals. Through work in community agencies, if agencies are available, students are provided opportunities for gaining firsthand, practical experience in social responses and for defining and dealing with such problems.

ANT 175

Introduction to Anthropology

This course is an introduction to the field of anthropology, with emphasis upon the prehistoric development and geographic patterns of culture. The behavior of humankind and its relation to environmental factors are illustrated by analysis of both traditional and modern societies.

SOC 201

The Sociological Tradition

An exploration of the social and intellectual history of sociology, this course will cover the major theories, methods, and problems of the discipline through reading some of the classic written works in the field.

SOC 215

Introduction to Quantitative Sociological Analysis

An introduction to quantitative sociological research, this course examines the need for sampling and explores simple random sampling and stratified techniques. It examines levels of measurement, discusses parametric and non-parametric statistics, and teaches appropriate univariate descriptive statistics for each level of measurement. The course also teaches, minimally, two appropriate bivariate techniques for each level of measurement and concludes with a brief examination of three variable models.

SOC 216

Introduction to Qualitative Sociological Analysis

This course is an introduction to qualitative sociological research, which should prepare the student to carry out the collection and analysis of data, obtained from participant and nonparticipant observational studies.

SOC 223

Juvenile Justice, An American Dilemma

This course examines juvenile delinquency and society's efforts to deal with it. The history of delinquency and juvenile justice is traced from colonial days to the present. The focus is on the nature of delinquency and the juvenile justice system, including police programs, diversion programs, probation, institutionalization, and aftercare as well as some of the issues involved in juvenile justice.

SOC 224

Terrorism

This course examines the geological, psychological, political, economic, religious, and social roots of terrorism. This class will look at the motivation behind the formation of various terrorist groups, their structure, location, range of action, and effectiveness in different parts of the world including South and Central Africa, Central and Latin America, the Far East, the Middle East and North Africa, North America, and Western Europe. Also examined will be the various countertactics used in combating such acts as bombings, skyjackings, assassinations, kidnappings, and other rural and urban terrorist activities.

SOC 225

Corrections

This course examines detention, probation, penal institutions, parole, and prevention of crime as well as the treatment of deviants by social institutions. The course includes field trips.

SOC 226

The Sociology of Deviant Behavior

This course is an examination of the social processes producing unusual, bizarre, and condemned behavior.

SOC 232

Sociology of Religion

This course is a study of religion as a social institution, including its historical development, its organization and operation, its effects on individuals, and its relation to society as a whole. Special attention is given to contemporary issues of secularization, new religious movements, civil religion, the rise of evangelical and fundamentalist movements, religion and politics, and religion and health. This course is the same as REL 232.

SOC 233

The Family

This course is an in-depth look at the nature and diversity of family forms in modern day America, as well as in other cultures and historical periods. Some of the topics included are the formation of families; interaction in families; dating and mate selection; and the dissolution of marriage through divorce, as well as family reformulation after divorce. Problems and strengths of the modern family will also be addressed.

SOC 234

Sociology of Education

An examination of the relationship of the educational system to other aspects of society, this course includes an examination of human relations within the institution, the interaction patterns between the institution and the community, and the impact of the institution on the behavior and personality of the participants.

SOC 240**Sex Roles**

This course will provide a framework for understanding female and male roles in society, particularly as these relate to gender-based systems of stratification. Included will be such topics as the meaning and development of sex roles; gender identity; the gender-based division of labor at home and in the workplace; and change in sex roles over time. Cross-cultural and historical evidence will be emphasized.

SOC 241**Race and Ethnic Relations**

This course is an examination of the basic concepts, theories, social processes, and resulting societal configurations of race, racism, and ethnicity. A historical and global review of selected groups will test the accuracy of the theories presented. Contemporary social interactions will be introduced as the data unfolds during the course.

SOC 242**Asian Americans**

The course will have four perspectives. Asian-American groups will be examined from a view of their arrivals, assimilation progress, and current expectations; an examination of the homelands of the arrivals and the “push-pull” factors that led to their departure for the United States and selected Latin American countries; social, economic, and political issues currently affecting relations between Asian Americans, members of the dominant culture, and relations among the various Asian-American groups; and evaluation of contemporary views—positive and negative—of short-term and long-term assimilation progress in the new “homelands.”

SOC 245**Animals and Human Society**

Social and behavioral scientists are increasingly coming to recognize the importance of animals in human social life. From the mundane to the dramatic, animals are implicated in human societies. This course will delve into many ways, both instrumental and expressive, that animals are central to human society by considering scholarship, commentaries, and controversies on the role of animals in our lives. Students will be asked to scrutinize and critically examine the

taken-for-granted role of animals in everyday social life so as to arrive at a better understanding of the profound influence of animals on our lives. The course will consider, among other things, the topics of companion and other domestic animals, attitudes towards animals, wildlife, social problems centering on animals, and the use of animals and animal imagery in economic activity.

ANT 246**Introduction to Africana Studies**

This is an introductory survey of the sociocultural experience of Africans in the Diaspora. The purpose of this course is to introduce students to the field of Africana studies. An interdisciplinary approach will be used to examine eight primary subject areas of the black experience, including history, religion, social organization, political economy, the sciences and creative culture, and environment. The major strands of Afrocentric social theory and protest thought will be examined through an exploration of strategies of resistance embodied in the works and actions of historical figures as well as in the historical and contemporary folk and popular production.

SOC 247**Special Topics**

This course is a study of sociological issues relating to some areas of current sociological interest in the world today. Topics change; consult pre-registration: bulletin for special topics titles and course descriptions. Potential courses include: SOC 247 Asian Americans; SOC 247 Japanese Society; SOC 247 Urban Sociology; and SOC 247 Sociology of Education.

SOC 250**Japanese Society**

The course will use a sociological framework to examine Japanese culture, history, language, and the arts. Native and foreign perspectives on the worldwide spread of Japanese influence will be reviewed, covering the periods before and after American involvement and the pre- and post-World War II eras. Selected projections of Japan's future will complete the course.

SOC 255**Contemporary Russian Life**

This course is an introduction to contemporary social life in the Russian Federation. It examines adults who were (and are still) heavily influenced by the previous entity, the Soviet Union. It explores the lives of younger people who have only known a much more capitalist-oriented way of life.

The course acknowledges politics and economics, but its focus is on the life experiences of the people. The course begins with an overview, of which language is a part. Once this large picture is presented, we look at the new society from the eyes of the adult. This gives us a picture of what has changed, and perhaps even been “lost” by this transition from socialism to capitalism. Next is the view of this world through the eyes of people who have really experienced nothing else, the youth.

Having completed this, the course concludes with a project done on campus or with tasks associated with an optional “field trip” to Moscow, Russia. Students taking the field trip may receive 300-level credit toward the sociology major.

SOC 261**World Societies**

This course examines world societies in selected geographic areas, with particular emphasis on the relation of the physical environment and human activities. Topics include languages, religions, population, settlements, kinship, economic, and political forms. The evolution of specific cultures and distinctive cultural regions of the world will be discussed.

SOC 262**Environment and Society**

Air and water pollution, the destruction of the soil and rain forests, acid rain, and global warming issues are all symptoms of human decision making and social processes. This course examines the social causes of the environmental problems the world faces today by focusing on the industrial revolution; social structures, ideologies and values; population growth and distribution; urbanization; poverty; the status of women; environmental law and criminal activity; and public policy in economic and social realms as it relates to environmental issues.

ANT 263**The Developing World**

The course will feature an examination of political, economic, and social conditions in areas of the world where ongoing technological developments are emerging. Impediments to this development will be examined. Included will be areas of traditional behavior including political, social, and religious constraints, presence of poverty—both relative and absolute, and resulting physical, psychological and sociological consequences from these conditions. Relationship of societies to geographical considerations will serve as an integrating portion of the course.

SOC 264**Environmental Issues in the Developed and Developing World**

The team-taught course provides in-depth examination of global environmental issues from socioeconomic, political, economical, and ecological perspectives. The course employs a case study approach, facilitating seminar-type discussions and debate. Topics that are covered include land degradation, agricultural systems, extraction of minerals and fossil fuels, deforestation, water issues, desertification, poverty, loss of biodiversity, adoption/enforcement of international environmental protocols, and global climate change. Students become familiar with the peer-reviewed literature and search the databases of international development organizations to complete out-of-class assignments. This course is the same as EVS 201.

SOC 265**Urban Sociology**

Examinations of urban life from the viewpoints of communities and groups, essentials of life needed for survival of urban life, and projections of the forms the urban world will assume in the future. Changes in the ecology of major urban areas in the United States will be featured.

ANT 276**Ethnology and Cognitive Anthropology**

This course is an introduction to the comparative study of world cultures. Special emphasis will be placed on the attempts which have been made to explain cultural similarities and dissimilarities among the peoples of the world.

ANT 277**Sounds, Gestures, and Objects: An Anthropological Perspective**

The sounds and gestures that we make, recognize, and ignore are part of that shared behavioral pattern we call culture. Also included in culture is the way in which we organize the objects around us. This course will examine the cultural areas of sound, gesture, and objects in the United States and a number of other cultures in other countries.

ANT 280**Introduction to Archaeology**

Archaeology, a subdivision of anthropology that examines extinct human societies using the remaining artifacts to explain their behavior, will cover the history, objectives, methods, theories, and current condition of the discipline. General focus will be on North, Central, and South American sites with special emphasis on sites located in Pennsylvania. Included will be discussions of contemporary “Americanist” archaeology.

SOC 291, 292**Tutorial**

A tutorial course is intended to provide individual students the opportunity to pursue a specific course of academic work under the close direction of an instructor who has agreed to supervise the work. The 291 and 292 courses are for freshmen and sophomores while the 391 and 392 courses are for juniors and seniors.

SOC 300**Social Psychology**

This course studies interrelationships of social institutions and personality; groups as personality-shaping forces; and the human individual as a culture-creating organism.

Prerequisite: At least one 100-level course in the social sciences or permission of the instructor

SOC 301**Contemporary Social Theory**

This course presents major theories of society and social action from 1950 to present, with emphasis on their analysis of modern life. It also studies the relation of theory to social research and empirical evidence.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 302**Sociology of Wealth and Power**

This course examines caste, class, status, and power as principal forms of inequality, with emphasis on historical changes and modern conditions and consequences of inequality for social solidarity and intergroup conflict and for individual life chances and life styles.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 323**Criminology**

This course examines the crime problem in the United States with major emphasis on the police, prosecution, and court systems. Specific offenses will be examined as well as the causes and prevention of crime.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 331**Industrial Sociology**

Occupational structure of modern society, with special attention to professional and managerial occupations is studied as well as how bureaucratic setting influences work and the individual and the relation of individual's occupation and the organization to social status, personal attitudes, and private life.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 335**Sociology of Health, Illness, and Disease**

The course will focus on a sociological interpretation of the field of medicine. Ethnomedicine, medical, ecology, health problems research, and health care delivery systems will be discussed. The relationship between practitioners and recipients of medical care will be analyzed.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 336

Sociology of Law

This course considers the components of law and their relation to traditional and contemporary values of society.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 347

Special Topics

This course is a study of sociological issues relating to some areas of current sociological interest in the world today. Topics change; consult pre-registration bulletin for special topics titles and course descriptions. Potential courses include: SOC 347 Industrial Sociology; SOC 347 Japanese Business and Industry.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 350

Japanese Business and Industry

This course studies the social structural foundations of Japan's current economic system, including both domestic and external economic policy. Topics include Japan's policies on defense and foreign aid, openness of Japanese market and reciprocity, Japan's investment in the U.S. and other world markets, and the significance of the Japanese MITI (Ministry of International Trade and Industry).

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 361

Population and Demography

Population studies focus upon the stages of population growth as well as the numbers of people and their distribution throughout the industrialized and industrializing world. Particular attention is paid to the causes of population growth including fertility, mortality and migration, the different theoretical perspectives that interpret population growth, the age/sex population structure, and current trends and

consequences. Topics such as poverty, the status of women, and urbanization are discussed.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 363

Diffusion of Environmental Innovations

This course introduces students to the role of being a professional "change agent" when working with new ideas and change. The focus is on ideas/changes within the environmental conservation/management arena and the attendant social consequences. Through a mixture of lectures, discussions, case studies, and field experiences, students come to understand the processes which innovations are adopted and diffused among people. By the end of the course, students come to know the methodologies for planning and implementing change and are able to anticipate and predict the consequences of planned change. This course is the same as EVS 260.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

ANT 380

Classical Archaeology

A collection of case studies in classical archaeology, this course explores numerous sites through the study of text, imagery, and archaeological reports. The primary focus of the content resides on Greek and Roman archaeology; however the ancient Near East and Egypt are also considered.

Prerequisites: ANT 175, SOC 280, and HIS 220

ANT 383

Field Methodology and Lab Analysis

A focused approach to the study of field methodology and laboratory analysis techniques, this course provides the opportunity for intensive study of survey, excavation, and ethnography, as well as the qualitative and quantitative analysis of collected materials. A strong understanding of anthropological field methodology and analysis will be developed through research involving real data from anthropological field projects as well as simulated field experiences.

Prerequisites: ANT 175, SOC 280, and SOC 261

SOC 391, 392

Tutorial

A tutorial course is intended to provide individual students the opportunity to pursue a specific course of academic work under the close direction of an instructor who has agreed to supervise the work. The 291 and 292 courses are for freshmen and sophomores while the 391 and 392 courses are for juniors and seniors.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 412

Survey Research

This course will cover all aspects of survey research, from conceptualization to questionnaire construction to data collection and analysis. Students will participate in all phases of an actual survey.

Prerequisites: At least one 100- and one 200-level sociology courses, comparable courses in the other social sciences, including psychology, or permission of the instructor

SOC 495

The Sociological Experience (Capstone Experience)

This course provides the student with an opportunity to demonstrate an awareness of sociological knowledge, the ability to apply sociological knowledge and methods to a social situation in need of investigation, and the skill needed to combine the theoretical and pragmatic aspects of sociology covered in the undergraduate program in sociology to an identified social situation. Students will report during each class period where they are in their research or experience, the nature of the material being covered and the issues and problems with which they are working. These issues and problems will be discussed by all members of the seminar.

Prerequisite: Junior or senior sociology majors only, or permission of the instructor

SOC 500, 501

Independent Study

SPANISH

Associate Professors: Hyland (program coordinator), Manzari
Assistant Professor: Ternes

The Spanish major and minor programs are offered through the Department of Modern Languages. The Spanish program offers courses in language, literature, and film with a strong emphasis on the cultural aspects of Spain and Latin America. Spanish has become one of the fastest growing languages spoken by more than 300 hundred million people in 21 countries. The Spanish program at W&J seeks to develop student language proficiency, providing the students with the necessary skills to succeed in their local and global communities.

MAJOR REQUIREMENTS: Since the department offers advanced placement, requirements for the Spanish major vary according to entry level. Entry level is determined by a computerized placement exam (see placement procedures at bottom right) and through consultation with Spanish program faculty. Because of the varying requirements for completing a major or a minor in Spanish, it is to the student's advantage to begin at the highest level possible, usually SPN 207 or 208. However, students with very limited or no background in Spanish will begin their studies with SPN 105 or 106.

Students who begin in 207 will take eight courses, including 207, 208, 309, 310, and three 400-level courses. With prior approval, one departmental course taught in English translation, or one extra-departmental course of appropriate content, may count toward the major. Students who begin in 208 can complete a major with seven courses, excluding 207.

Students who begin in 309 will take six courses, including 309, 310, three 400-level courses, and at least one additional course at the 300 or 400 level. No courses taught in English may count toward the major.

Students majoring in Spanish are required to complete a capstone experience consisting of a portfolio in electronic format. The portfolio comprises a body of work, both written and oral, which will substantiate that, throughout the completion of the major, the student has

developed the skills and qualities essential to proficiency in the language and its culture(s).

Spanish majors are strongly advised to spend an extended period immersed in the culture(s) of the target language on an approved Intersession, summer, or term- or year-long study abroad program.

Spanish majors are permitted to double major in French or German.

MINOR REQUIREMENTS: Like the major, Spanish minor requirements vary according to entry level. Entry level is determined by a computerized placement exam (see placement procedures below) and through consultation with Spanish program faculty. Because of the varying requirements for completing a major or a minor in Spanish, it is to the student's advantage to begin at the highest level possible. However, students with very limited or no background in Spanish will begin their studies with SPN 105 or 106.

Students who begin in 207 will take five courses, including 207, 208, 309, 310, and one 400-level course. Coursework completed on a pre-approved study abroad program may be substituted for a 300- or 400-level course. Students who begin in 208 must still take five courses to complete a minor.

Students who begin in 309 are not eligible for a minor.

Course requirements for the major and minor beyond 208 must be taken at W&J, with the exception of preapproved study abroad programs.

NOTE: Students who have completed coursework at one level may not take courses at a lower level without departmental approval.

PLACEMENT PROCEDURES: All students taking a language at W&J must take the student information questionnaire prior to enrollment in that language. Students with a background in Spanish must also complete the Computerized Adaptive Placement Exam (CAPE). Incoming freshmen will usually take the exam prior to registration during summer orientation, but the exam may be administered at any time. The

results of the questionnaire and exam will usually determine the level at which a student will begin a course of study in the language. A student who falls at the high or low end of a scoring range may be placed higher or lower than the course indicated, depending on the number of years of Spanish that the student has had. Placement in these situations is done in consultation with a faculty member from the Spanish program. Because of the varying requirements for completing a major or minor in Spanish, it is to the student's advantage to begin at the highest level possible.

TEACHER CERTIFICATION: Students seeking teacher certification in Spanish language K–12 must complete the admission procedures and required courses in education, in addition to completing the required courses for the Spanish major and including SPN 260.

SPN 105, 106

Elementary Spanish I, II

An introduction for students with little or no knowledge of Spanish, both courses implement a proficiency-oriented approach that focuses on the rapid development of listening and reading comprehension skills through constant exposure to high-frequency language in the form of spoken and printed texts. The language students practice in class is realistic, so that they will be able to perform survival linguistic tasks. Cultural study focuses on the diversity of the Spanish-speaking world, and students will be able to appreciate and understand differences between their own culture and those of the Hispanic countries.

Taught largely in Spanish.

Prerequisites: Departmental placement; SPN 105, or permission of the instructor, is a prerequisite for SPN 106

SPN 207, 208

Intermediate Spanish I, II

This course is a review and extension of communication skills for students with a basic knowledge of Spanish. Emphasis is placed on listening, reading, speaking, writing, and culture. The course combines linguistic and cultural information and numerous opportunities to communicate in realistic situations, and to express ideas and opinions. Through extensive

use of authentic materials, students are exposed to a diversity of language learning and cultural experiences. Because these selections are actual products of various Spanish-speaking cultures, students have a completely authentic view of the Spanish language and the people who speak it.

Taught in Spanish.

Prerequisites: Departmental placement; SPN 106, or permission of the instructor, is a prerequisite for SPN 207; SPN 207 or permission of the instructor is required for SPN 208

SPN 257

Spanish Literature in Translation

This course is a study of a special topic, such as Hispanics in the United States or the work of a particular author. The topic to be studied will be announced in the preregistration bulletin.

Taught in English.

Offered: Intersession

SPN 260

Theory and Techniques of Teaching Modern Foreign Languages

An introduction to the theoretical and practical aspects of teaching modern foreign languages, students will study the history of language teaching as well as the various approaches and strategies to language instruction and their relationship to second-language acquisition theory. This course must be completed prior to student teaching. This course satisfies the Pennsylvania Department of Education requirement that candidates for certification in foreign languages receive instruction in methods of teaching foreign languages, a subject which in the last 50 years has developed an extensive literature and repertoire of theoretical approaches.

Taught in English.

Offered: Fall term, every other year

Prerequisites: Sophomore status and permission of the instructor

SPN 309, 310

Advanced Spanish I, II

These two sequential courses focus on the development and application of advanced functional, purposeful Spanish language skills,

with special emphasis on speaking and writing. Through intensive writing, grammatical exercises, reading, and oral communication, students demonstrate knowledge of advanced grammar and linguistic aspects of Spanish, such as morphology, semantics, and syntax.

Taught in Spanish.

Prerequisites: SPN 208, or permission of the instructor, is required for SPN 309; SPN 309, or permission of the instructor, is required for SPN 310

SPN 354

An Introduction to Literary Analysis

An introduction to reading and interpreting complex works of art from the Hispanic world, including art, prose, poetry, drama, and the essay. Attention is given to helping students analyze these works from an aesthetic, cultural, social, and political perspective while intending to develop a more sophisticated level of oral and written expression in Spanish.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 371, 372

Spanish Business Communication and Culture I, II

Two sequential courses on the topical application of advanced Spanish language skills, with emphasis on the development of an appropriate idiom for business Spanish contexts. Selected readings will provide cultural contexts within which business activities are likely to occur. The emphasis is on speaking and writing.

Taught in Spanish.

Prerequisites: SPN 309 is a prerequisite for SPN 371; SPN 310 is a prerequisite for SPN 372, or permission of the instructor

These courses count toward the international business major only.

SPN 420

Topics in Hispanic Culture

A study of Hispanic cultural topics, including Spain's history from medieval times to the present, Latin American culture from the pre-Colombian era to the twenty-first century, and significant issues in politics, economics, and the dynamic tension between tradition and change in contemporary Latin American society.

Emphasis is given to advanced language study, composition, and oral proficiency. The topic to be studied will be announced in the preregistration bulletin.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 451

Don Quixote

This course is a study of Miguel de Cervantes' novel, *Don Quixote de la Mancha*. The philosophical, esthetic, and historical values which shaped the novel will be examined. Major critical approaches will be considered, as well as the influence that this seminal work has had in Hispanic letters.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 453

Peninsular Literature I

This course is a survey of peninsular literature from its origins in the Middle Ages up to 1700. Students will read and analyze texts of several genres including poetry, prose and theatre presented in chronological order. In the analysis of the works we will pay attention not just to the literary techniques employed by their authors corresponding with the literary fashions of their time, but also to the social, historical, ideological, religious, philosophical, a esthetic, and political backgrounds that contributed to their creation.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 454

Peninsular Literature II

This course offers an overview of peninsular literature from the eighteenth century to the present day. Students will study authors and their textual production in view of the political, social, and cultural processes that have affected Spain through these centuries. The course is focused on textual analysis of the different literary works, research of secondary sources, and development of a critical discourse suitable to the level.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 455**Spanish American Literature I**

An introduction to basic genres, themes, and techniques to study and analyze works by major literary figures in Spanish America from the Pre-Columbian to modernist periods. The selections correspond to different stages of historical and cultural development in Spanish America so that students may gain a better understanding of how those events produced a distinct literature.

Taught in Spanish

Prerequisite: SPN 310 or permission of the instructor

SPN 456**Spanish American Literature II**

An introduction to basic genres, themes, and techniques to study and analyze works by major literary figures in Spanish America from modernism to the present day. The selections correspond to different stages of historical and cultural development in Spanish America so that students may gain a better understanding of how those events influenced the production of a distinct literature.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 457**Topics in Spanish and Latin American Literature**

This course is a focused study of a special topic in literature varying from year to year. Likely topics include medieval literature, modern Spanish drama, Latin American Nobel Prize winners, Latin American women writers, Latin American short story, or the work of a particular author. The topic to be studied will be announced in the preregistration bulletin.

Taught in Spanish.

Prerequisite: SPN 310 or permission of the instructor

SPN 500, 501**Independent Study**

STUDY ABROAD

Students are encouraged to learn the languages, cultures, and customs of other nations and to deepen their understanding of world affairs. To introduce students to diverse cultures and a wider world, the College encourages its students to study abroad. The Office of International Programs maintains a list of more than 30 approved term and yearlong programs of academic study in more than 20 countries. The programs are regularly evaluated and monitored by faculty in order to ensure high academic quality and immersion in host cultures. Students attending these programs receive W&J credit.

The Office of International Programs conducts extensive advising activities, guiding students through the process of identifying programs that fit personal and academic goals, consulting with W&J faculty to obtain course approval, applying, and other aspects of off-campus study. Group and individual advising sessions take place every week. The office provides mandatory pre-departure orientation meetings for all students going off campus and continuous registration at W&J.

W&J maintains formal exchange agreements with universities in Australia, China, France, Germany, Ireland, Japan, Mexico, Russia, South Africa, Spain, and the United Kingdom.

REQUIREMENTS: Good standing and a minimum grade point average of at least 2.50. Any student with less than this and who has good reason to believe that there are extenuating circumstances may appeal to the Academic Status Committee for an exception to this rule before leaving to study abroad.

APPLICATION: Students who receive W&J academic credit for an off-campus program must submit an application through the off-campus study office. Applicants are required to consult with academic advisors, have courses approved by departments, and obtain recommendations from faculty.

FEES AND FINANCIAL AID: W&J endeavors to make off-campus study available to all students. Financial aid, as determined by the

Office of Financial Aid, continues when students study abroad. W&J requires the payment of W&J's tuition and in some cases room and board. W&J charges a nominal administrative fee of \$300 for participation in an off-campus program. For more detailed information as off-campus study pertains to financial aid, please refer to page 201 in the Financial Aid section. Students are responsible for airfare and any personal expenses.

FOREIGN LANGUAGE: Students abroad are encouraged to study in the language of their program country, which typically requires four terms of college-level language study. W&J also has approved programs abroad where students may learn the host language while taking other courses in English.

ACADEMIC CREDIT: Academic credit is given for programs approved by W&J. Students must receive a C or better for credit to transfer. Grades earned on term and year programs do not count in the student's grade point average with the exception of the German program.

The German program offers three programs for students to study abroad at various levels. Courses are offered as a part of the standard program at W&J. All credits and grades transfer automatically.

THEATRE

Professor: Cameron (chair)
Associate Professors: Fleury, Frank
Assistant Professors: Maresh, Shaw

The Department of Theatre and Communication offers a major and a minor in theatre (as well as a minor in communication—see page 55). The theatre major provides a broad-based education in theatre with the goal of creating the complete, passionate theatre person. This rigorous program will challenge young men and women to explore theatre from a number of perspectives—those of the actor and playwright, director and designer, advocate and critic. A bold mixture of classroom, laboratory, and stage experiences, the theatre major teaches essential skills and concepts that will allow graduates to succeed in the kind of life they choose to create for themselves.

MAJOR REQUIREMENTS: A total of 10 courses, including THR 151 (two terms, equivalent of one course), THR 180, THR 271, THR 272, ENG 215 or 315, and THR 499. Four additional courses from the theatre curriculum are required. At least three of the 10 required courses must be at the 300 level or above.

MINOR REQUIREMENTS: A total of six courses from the theatre curriculum, at least two of which must be at the 300 level or above.

THR 151 Theatre Practicum

This course is a practical learning experience in theatre production. Students enrolled in the practicum will receive one-half course credit (two credits) for significant and responsible participation in all visiting and in-house theatre, music, and dance productions at the Olin Fine Arts Center and other campus venues over the course of the term. A maximum of one course credit (four credits) may be received for theatre practicum.

THR 152 Theatre as a Liberal Art

This course examines the role of theatre in society. This course is designed to give students

a basic working knowledge of the theatre as a vehicle for entertainment, intellectual enlightenment, political and social awareness, and self-discovery.

THR 153 Creative Dramatics

This course is an introductory course on the application of dramatic fundamentals in the K–12 classroom and other interpersonal and group contexts. Using projects and studio/lab experiences, this class explores the principles and methods used in guiding dramatic play, with an emphasis on utilizing drama as both a developmental and diagnostic tool.

THR 180 Acting I: Fundamentals

This course is an introduction to the theories and techniques of the art of acting for the stage. The course employs improvisational techniques, script analysis, and scene and monologue work.

THR 250 Topics in Theatre

This course focuses on topics relevant to theatre and/or communication, varying from year to year.

THR 260 Production Design

This course introduces students to contemporary practices in scenic, lighting, and costume design for the theatre. Students will explore the aesthetic, practical, and creative choices one must make when developing unified designs for the stage. This class is an applied design studio; students will create physical expressions of their designs.

THR 271 History of the Theatre I

This course is a survey of theatre history and dramatic literature from classical Greece to seventeenth-century France. Representative plays from classical Greece and Rome, medieval and Renaissance England, China, Japan, and seventeenth-century France will be read and

discussed. Theatrical conventions in each period and the relationships between theatre and society will also be examined.

THR 272

History of the Theatre II

This course is a survey of theatre history and dramatic literature from the eighteenth century to the present. The birth of modern drama in the nineteenth century and its continuous development up to the present will be emphasized. Representative plays will be read and discussed and the theatrical conventions of the modern era, and the relationship between the theatre and the society that created it, will be emphasized.

THR 280

Acting II: Scene Study

This course continues to explore the actor's craft. Emphasis is placed on the fundamental relationship between actor and text and the continued development of the physical, intellectual, and emotional resources of the actor.

Prerequisite: THR 180

THR 281

Playwriting

This course is designed to teach the fundamentals of playwriting to students who will write a series of exercises, scenes, and short dramatic pieces. Playwriting is an intensive writing course that requires students to read and analyze a number of plays and to participate in story sessions designed to develop dramatic ideas.

THR 360

Problems in Scenic Design

An advanced theatrical design studio, this problem-solving course explores the challenges of designing effective stage sets. Projects emphasize creative solutions through artistic collaboration in the face of limited resources.

Prerequisite: THR 260

THR 375

Women in American Theatre

This course examines the history of and work by women playwrights, directors, actors, and theatre managers in the United States from the late eighteenth century to the present. In this course, students also study women's history in

the United States and feminist and gender theory as they influence and have been influenced by American theatre.

Prerequisite: One theatre course or one GWS course

THR 379

Directing for the Stage

This course is an examination of the process of bringing a written text to life on the stage. Directing theory, script analysis, concept development, visual storytelling, organizational strategies, and the director-actor relationship are emphasized.

Prerequisite: One theatre course

THR 380

Acting III: Advanced Scene Study

This course is an intensive study and application of acting techniques. Emphasis is placed on comprehensive script analysis, vocal and physical characterization, styles of performance, and the exploration of emotion as a means of creating dramatic truth.

Prerequisite: THR 280

THR 382

Theatre Workshop

A studio experience for advanced theatre students, this course focuses on creating original works of drama and bringing them to life on the stage by term's end. Students will participate in the process on every level—as writers, dramaturgs, directors, actors, designers, and stage technicians.

Prerequisite: One theatre course

THR 383

Comedy Lab

An intensive writing and performance course for the theatre student that is dedicated to creating new comedy. Students develop a number of evenings of new works, with an emphasis on the topical and timely. The course explores comedy from finding the comic idea to performing the comedic sketch before an audience.

Prerequisite: One theatre course

THR 390

Dramatic Literature

This course is an advanced seminar in selected

areas of dramatic literature. Students read and study in detail the work of a particular playwright (e.g., Henrik Ibsen, Molière, Caryl Churchill) or a group of plays and playwrights representative of a particular country or era (e.g., twentieth-century Irish plays, post-war American drama, English Renaissance plays, ancient Greek drama).

Prerequisite: One theatre course or ENG 190

THR 499

Senior Project

This course is the capstone experience for the theatre major. In the fall or spring of the senior year, each major presents a project that explores in depth the student's specific talents and areas of interest. Since theatre is a collaborative art, students may work in teams to complete their projects, which may take the form of performances, directing projects, plays or screenplays, scholarly papers, etc. Preparation for the senior project begins in the fall or spring of the junior year.

Prerequisite: Senior theatre majors only

THR 500

Independent Study

THEMATIC MAJOR

The purpose of the thematic major is to provide a creative opportunity for students to build an individualized curriculum around a particular theme and to explore interrelationships between academic disciplines. Examples of some of the most recent thematic majors at the College include conservation biology, the cultural and philosophical basis of art, and American studies.

Thematic majors are developed and pursued under faculty supervision. Proposals must be approved by the Curriculum and Program Committee no later than midterm in the first term of the applicant's junior year.

Students may secure additional information about the thematic major from the Office of Academic Affairs.

ACADEMIC REGULATIONS



COLLEGE CALENDAR AND ACADEMIC LOAD

The College year is divided into a four-month fall term; a one-course, three-week Intersession; a four-month spring term; and a summer session. Dates of the beginning and end of each term and Intersession, the summer session, vacations, recesses, and examination periods are indicated in the College calendar on page 3. All enrolled students must be in attendance after the opening of an academic term until the close of the final exam period for each session unless they are pursuing an approved off-campus course of study.

The typical academic load for a fall or spring term is the equivalent of four courses, with the possible addition of physical education or other partial courses. During Intersession, students are limited to one course, with the possibility of adding physical education and wellness courses. Students are expected to complete at least eight courses (exclusive of physical education and wellness) in each of the first two years, and nine for each year thereafter to add to the 34 required for graduation.

ENROLLMENT INFORMATION

FULL-TIME AND PART-TIME STATUS

A student attains full-time status by being enrolled in a minimum of three courses during a 14-week term, or one course during Intersession, or two courses during a summer session, except under conditions to be determined by the Office of Academic Affairs. Students enrolled in fewer than three full courses are considered part-time. Part-time students do not have access to the full range of College resources.

SPECIAL STATUS

Students who wish to take one or more courses at the College, but who are not seeking a degree, may apply as special students. Special students who subsequently decide to seek a degree at Washington & Jefferson College should contact the Office of Admission.

CLASS LEVELS

For the purpose of course registration, students are grouped into classes according to the following rules:

- Students who have completed fewer than eight courses* are considered freshmen;
- Those who have completed at least eight courses, but less than 16, are sophomores;
- Juniors have completed at least 16 courses, but less than 25; and
- Seniors have completed 25 or more courses.

*Please note that physical education courses are not included in these calculations, and that your academic progress is evaluated along a related rule for financial aid purposes. Please see page 202.

REGISTRATION INFORMATION

FACULTY ADVISOR

Every student has a faculty advisor. Freshmen are advised by their Freshman Forum professor; students who have not declared a major by sophomore year will be assigned to open major advisors. Once a student has declared a major, he or she will usually be advised by a member of that department. Faculty advisors will assist in selecting courses, counsel on academic progress, and help develop vocational plans and objectives. In all academic advising, the student has certain responsibilities. He or she must arrange meetings with the advisor several times a term, not just prior to registration. It is the responsibility of each student to know both the general graduation requirements and those of the student's major field of study, and to meet all requirements satisfactorily for graduation.

DECLARATION OR CHANGE OF MAJOR

All new first-year students enter the College as open majors, in order that they may explore freely the College's academic offerings. First-year students may declare a major at the end of the fall term, and all students must declare a major by the end of the sophomore year. This declaration is nonbinding.

When students declare or change their majors, they must inform the Office of the Registrar. The declaration or change of a major does not take effect until recorded in the registrar's office. They should also choose a new advisor in

the discipline they intend to pursue. Students should consult the department chair for assistance in selecting a major advisor; those students intending to pursue a double major should retain advisors in both disciplines.

REGISTERING FOR CLASSES

Incoming first-year students will receive assistance with class registration, along with other information, during LAUNCH, one of the College's orientation programs for new students. During LAUNCH, students meet with faculty advisors who will acquaint them with the College's curriculum and academic policies. Transfer students participate in a separate, similar orientation program.

Current or re-enrolling students at the College will use WebAdvisor, the online registration system, to sign up for classes. The registrar's office publishes deadlines and procedures prior to each registration period, typically held in November for Intersession and spring terms and in April for summer and fall terms.

PENALTIES FOR LATE REGISTRATION

Please contact the Business Office for this information.

CHANGES TO A SCHEDULE (ADD/DROP)

Students may begin making changes to their schedules immediately following the close of the registration period. This is called the add/drop period. For fall or spring terms, students may make changes to their registrations up to the end of the first full week of classes. For Intersession, students have until the end of the second day of the Intersession term. Course changes made before this add/drop deadline do not appear as course registrations, and no record of the transaction will appear on the student's transcript. After the add/drop period ends, a student may withdraw from one or more courses, but may not add a course. Withdrawing from a course after the add/drop period will result in a designation of that withdrawal on the student's transcript (in the form of a W).

Add/drop transactions can be processed in one of two ways. If the desired course is open and the student has the necessary prerequisites, it is possible to add or drop via WebAdvisor, the online registration system. Alternatively, a student may choose to process an add/drop form or course petition form, available through the

registrar's office. These forms require the signatures of the student's advisor and the instructors of the courses involved in the transaction. The transaction is not final until the form is returned to the registrar's office. Students processing add/drops through WebAdvisor should follow the registrar's online instructions for receiving verification of the transaction.

COURSE AUDITING

Auditing of a course, for no credit, is permitted upon the payment of tuition incurred and the written consent of the instructor. Permission must be obtained from the registrar's office by the end of the add/drop period as described above.

OVERLOAD POLICY

For full-time students, fall and spring tuition cover nine course registrations, or the equivalent, during the academic year. Students registering for more than 36 credits (the equivalent of nine courses) in one academic year will be charged an overload fee of \$650 per credit in excess of the 36. Please note that this calculation is based on what you register for in a year, rather than what you complete. Your registration for each term is tabulated at the end of the add/drop period. Finally, this policy does not apply to physical education and wellness courses, applied music studies, or the theatre practicum course, THR 151.

FIFTH COURSE

Any freshman or sophomore making the Dean's List in a 14-week session is permitted to take a fifth course in the subsequent 14-week session, with the written approval of the student's major advisor and the registrar. Any junior or senior earning a grade point average of 2.50 or better in a 14-week session is permitted to take a fifth course in the subsequent 14-week session, with the written approval of the student's major advisor and the registrar. A senior in his or her final term who does not qualify under this regulation but is otherwise in good academic standing will be permitted to take a fifth course. A fifth course that results in more than nine course registrations for a single academic year will carry an additional tuition charge, in accordance with the overload policy.

CLASS ATTENDANCE

Students are expected to attend all scheduled

meetings, lectures, discussions, diagnostic exercises, and laboratory periods that constitute the course in which they are enrolled. Absences which, in the opinion of the professor, are damaging to a student's academic work will be reported to the Office of Academic Affairs. Continued absence may result in the dismissal of a student from the course with a grade of F.

In the case of illness, a student must report immediately to the Office of Health Services so that competent medical attention may be provided. A student choosing to pursue medical care through another practitioner should notify the Office of Student Life so they can be aware of the illness.

In all cases of absence, it is the student's responsibility to notify his or her course instructors of the situation, either directly or through the student life office. Students may be asked to provide documentation supporting the reason for their absence, and should be aware that faculty attendance policies remain in effect even in cases of illness.

FINAL EXAMINATIONS AND OTHER DIAGNOSTIC EXERCISES

At the beginning of each term, instructors will distribute a course syllabus that indicates the diagnostic exercises for that course. Such exercises may include announced and unannounced quizzes, examinations, papers, and oral presentations. Typically, courses terminate with a final examination given during the final exam period designated in the official schedule, although substitutions such as a final paper or presentation may exist.

Attendance at all scheduled and announced examinations is required. Unauthorized absence from an examination may result in a grade of F on the examination. Students who must, for whatever reason, be absent from a test or presentation may be required by the instructor to obtain an excuse in writing from the Office of Academic Affairs.

WITHDRAWING FROM A COURSE

After the usual one week set aside for course changes during registration (add/drop period), students may officially withdraw from a course until 10 class days (two weeks) after midterm. Note that the class attendance policy is in effect until the student officially withdraws from the course. Students are expected to consult with their academic advisor prior to withdrawing

regarding the potential effects on their academic progress. Course withdrawal requires the signatures of the instructor of the course and the student's academic advisor. Faculty may refuse to authorize withdrawal, particularly in cases of academic dishonesty. Students will be given the grade of W (withdrawal). Courses for which students have received a grade of W do not count as completed courses, nor are these grades considered in determining a student's grade point average.

REPEAT OF A COURSE

Any course (except Freshman Forum) successfully completed at W&J may be repeated once. The original course (and grade) and the repeat of the course (and grade) will appear on the student's transcript; however, only the second course (and grade) are counted towards graduation requirements and the grade point average. Students may take any number of special topics courses with the same course number as long as the topics of the courses are different.

OBTAINING COURSE CREDIT FOR COURSES AND PROGRAMS COMPLETED AT OTHER COLLEGES

A currently enrolled W&J student, with approval of his or her major advisor and the registrar's office, may take courses at another college or university. Courses in which the student earns grade of C- or better may be transferred to W&J, subject to existing regulations covering such courses. The student initiates the procedure by obtaining a course description from the other institution and presenting this to the relevant department chair at W&J. The registrar's office will provide further instructions and the appropriate course transfer form.

If you are an incoming transfer student, the registrar's office, in conjunction with the Office of Academic Affairs and department chairs, will provide the final determination of the course credit awarded from the courses you have completed prior to coming to W&J.

In any given summer, a W&J student may transfer to W&J up to two courses taken in another summer school program. These courses must be approved in advance according to the procedure described in the first paragraph in this section.

GRADING POLICIES

GRADING SYSTEM

At the close of a session or upon completion of a class, the instructor reports a final grade indicating the quality of the student's work in the class. Grade reports are available after the close of each session via WebAdvisor, the College's online registration system. Official copies of grade reports and transcripts are available to you through the College registrar.

In addition to final term grades, midterm grades are reported to some students. All first-term, full-time freshmen receive midterm evaluations, as do students on academic probation or those whose work to date in the class would merit grades below C-. Midterm grades are available via WebAdvisor.

Grade-point values are assigned for each credit according to the grading system below.

The basis for determining the student's overall scholastic standing is the grade point average. This average is determined by dividing the total number of grade points earned by the total number of courses attempted. For example, if a student earns a C (2.00) in each of two full courses, and a B (3.00) in each of two half-courses, first multiply the course units by the point value of the grade (grade of 2.00 x 1 course = 2.00 grade points and grade of 3.00 x 1/2 course = 1.5 grade points) and add the grade point values for each course together to find the total number of grade points (2+2+1.5+1.5 = 7). Then add the course units together to find the courses attempted (1+1+1/2 + 1/2=3). Finally, divide the grade points by the courses attempted to find the grade point average ($7 \div 3 = 2.33$, or C+ average). The grade point average is figured only on hours attempted—courses in which you receive letter grade (A through F). Grades of "satisfactory" or "audit" represent courses earned, but are not used in the calculation of the grade point average.

SATISFACTORY/UNSATISFACTORY OPTION

The satisfactory/unsatisfactory option is open to all students at the College. Between midterm and 10 class days (two weeks) after midterm, or during the second full week of Intersession, students may convert a course (excluding ENG 111, ENG 112, and Freshman Forum) from a

graded to a satisfactory-unsatisfactory (S/U) basis. Students exercising this option may not subsequently withdraw from that course.

A student taking a course graded S/U must do all the work normally assigned in the course. For example, he or she must take all tests and quizzes and must complete all papers. The student is also subject to the current College attendance requirements.

No more than two courses (excluding internships and physical education classes) may be taken on an S/U basis during a student's time at W&J.

Courses graded S/U will not count towards the fulfillment of a student's major or minor requirements.

Grading for S/U courses is governed by the following: A student earning a C or better will be considered to have earned a "satisfactory" grade. A student receiving an "unsatisfactory" grade will not receive credit for the course. Neither an S grade nor a U grade will affect the student's grade point average.

Physical education and wellness courses are offered on an S/U basis, unless specifically approved otherwise by the faculty.

INCOMPLETE GRADES AND GRADE CHANGES

Failure to satisfy minimal course requirements shall result in a grade of F, unless the Office of Academic Affairs approves a student's request for an incomplete grade, which must be submitted on a "Request for Incomplete" form, available from the registrar's office. Students on academic probation must obtain approval from the Director of Advising before submitting a request for an incomplete grade to a faculty member.

Unless an emergency makes it impossible for the student to do so, such requests must be submitted within two business days of the end of the final exam period. The Office of Academic Affairs will provide written confirmation to the student and the instructor if the request is approved. Incomplete courses must be completed, and the grade changed, by the date listed on the "Request for Incomplete" form and no later than the end of the fourth week of the succeeding session in which a student is enrolled (not to include Intersession or summer) or the grade of incomplete will be automatically converted to an F.

ACADEMIC SANCTIONS

Full-time students whose academic performance fails to meet acceptable standards will be issued a warning or placed on probation by the Academic Status Committee or, with the approval of the faculty, will be dismissed from the College. When students are placed on academic probation, they must arrange an interview with a representative of the Office of Academic Affairs. The purpose of this interview will be to review their academic performance and establish a program for improvement. Students placed on academic probation are expected to remove their deficiencies at the earliest possible time. This can be accomplished only by means of improved grades. The staff will assist in designing individualized programs to improve the academic performance of students placed on academic probation. These programs may include time management, study skills, restricted activities, and personal conferences with academic advisors, deans, and members of the faculty. In addition, students on probation may not participate in co-curricular College activities, such as student government, intercollegiate athletics, and other clubs and organizations, while on probation without written permission from the Office of Academic Affairs. Students may be removed from probation only by the Academic Status Committee after the completion of a regular session or a summer session of full-time study at this College, as defined in the description of full-time status.

Rarely is a student permitted to remain on probation for more than one year. The Academic Status Committee reviews the record of every probationary student at the close of each session. Students who have improved their work to the satisfaction of the committee standards are removed from probation. Others, whose work shows no improvement, may be dismissed from the College. Students who are dismissed may appeal their dismissal in writing to the vice president of academic affairs within 10 business days of notification of dismissal. The vice president of academic affairs will make a recommendation to the president of the College, who will make a final decision on the appeal. A student who is academically dismissed for a second time is ineligible to return to the College.

READMISSION AFTER ACADEMIC DISMISSAL

Students who are dismissed from the College

must remain away from school for at least one full fall or spring term. After that period, students may petition the Academic Status Committee for permission to reapply. During their time away, dismissed students should engage in a course of activity, which may include attendance at another institution, intended to address the causes of their lack of academic success and to demonstrate their readiness to return to W&J. More information about readmission after academic dismissal may be obtained from the Office of Academic Affairs.

A student who is academically dismissed for a second time is ineligible to return to the College.

ACADEMIC HONESTY POLICY

THE PRINCIPLE OF ACADEMIC HONESTY
Washington & Jefferson College is a community dedicated to the intellectual and personal development of its students. Such development may be achieved in many ways, including creating original works of writing, art, and music; conducting research; engaging in discussions; taking examinations; and participating in co-curricular activities. Central to such developmental activities is that whatever a student represents as being the fruit of his or her own intellectual labor is indeed his or her own. Otherwise the student will not only have acted dishonestly, but will also have wasted the developmental opportunities afforded by the College.

W&J upholds academic honesty in the College community by pursuing cases of academic misconduct. When such academic misconduct is discovered, the College will ensure through the imposition of appropriate penalties that the student does not gain unfair advantage through his or her dishonesty, and will help the student address the concerns that led to the offense. If the nature of the intellectual dishonesty is determined to be conscious, calculated and/or intentional, or if academic misconduct recurs, the student may be judged to be incapable of benefiting to a satisfactory degree from the developmental opportunities afforded by the College, and may then be permanently dismissed so that the College's resources may be directed to deserving students.

VIOLATIONS OF ACADEMIC HONESTY (ACADEMIC MISCONDUCT)

The Washington & Jefferson College community requires its students to create and submit their own work in every setting at the College, including classes, laboratories, and co-curricular endeavors. A violation of this principle constitutes academic misconduct. Examples of academic misconduct include, but are not limited to:

- Plagiarism, which is representing the fruits of another's intellectual labor as one's own, whether this is done with the intention to deceive or is the result of incompetence. Examples include using someone else's ideas, research results, sentence structure, or phrasing without properly crediting the author, thus leading the reader to assume that they are the student's own creation.
- Fabricating material and representing it as genuine. This includes falsifying research results for a laboratory report or falsifying information for a written essay.
- Submitting papers or other academic work in two different classes or other academic settings without full knowledge of the instructors involved and written permission from both instructors. When an assignment asks for original work, the presumption is that the work has not been submitted in a different class or another academic setting.
- Knowingly giving or receiving unauthorized aid on a piece of academic work (including tests, papers, research, artwork, etc.). For example, a person knowingly giving answers to another person during a test is as guilty of academic misconduct as the person receiving the answers.
- Misconduct in a testing situation, including copying answers from another student's test, using electronic devices or other unauthorized sources of information during a test, or illicitly collaborating on tests taken outside of the classroom.

Students are responsible for adhering to academic honesty policies specific to each of their classes. Such policies are in addition to the College's general policy, and are communicated by the instructor.

PROCEDURES FOR CASES OF ACADEMIC MISCONDUCT

If a course instructor suspects that a student has committed plagiarism or another form of academic misconduct, the instructor must first discuss the matter directly with the student or students involved. If the academic misconduct has taken place outside of a classroom setting, the person responsible should contact the Office of Academic Affairs for advice on how to proceed.

If a course instructor believes that the case of academic misconduct is minor (for example, the student may simply have misunderstood how to cite a source), the instructor is not required to impose a specific penalty on the student, and the case need not be reported to academic affairs.

If a course instructor believes that the student is guilty of intentional or major academic misconduct, the instructor may give the student an "F" for the course, or impose other penalties consistent with the instructor's academic honesty policy. The instructor must send written documentation of the violation and the penalty to the student and to the vice president for academic affairs, or another representative of the Office of Academic Affairs, who will keep a record of the offense. The Office of Academic Affairs will send a letter to the student and to the faculty member indicating that a charge of academic misconduct has been received, affirming the penalty imposed by the faculty member, and informing the student of the appeal process. If the Office of Academic Affairs has a record of previous academic misconduct, or if a single infraction is judged to be sufficiently serious, the Office of Academic Affairs may impose an additional penalty, up to and including dismissal from the College. The letter to the student will include a description of this additional penalty and a rationale for imposing that penalty.

A student contesting the decision of the faculty member or the Office of Academic Affairs has the right to appeal in writing to the Academic Status Committee within 10 business days of the date of the letter from the Office of Academic Affairs. The Academic Status Committee will review the student's appeal, and if needed, contact the student, faculty member, the Office of Academic Affairs, and any other parties that

may be involved, for further information. The decision of the Academic Status Committee will be sent in written form to the Office of Academic Affairs, to the student, and to the faculty member, along with a recommendation for action to be taken by the Office of Academic Affairs.

A faculty member who serves as an independent resource for students is available for consultation on issues of academic misconduct.

LEAVING THE COLLEGE

GRADUATION PROCEDURES

Students who plan to graduate at the end of the spring term must file an application for graduation during the preceding fall term. Students who will complete all degree requirements by the end of fall or summer term can apply to the registrar's office to have their degrees conferred at the close of that term; the student may then apply for participation in commencement for the following spring term, if desired. Forms are available from the Registrar's Office. Degrees will be conferred only on those with no academic or financial obligation to the college.

VOLUNTARY LEAVE OR WITHDRAWAL AND RETURN TO SCHOOL

In order to withdraw from the College or pursue a temporary leave of absence, students must consult in person with the Office of Student Life. In either case, official action cannot be taken until the student files an official written statement of leave/withdrawal.

RIGHT OF PETITION

Students have the right to petition any faculty committee regarding a waiver of academic rules and regulations. Petitions should be submitted to the Office of Academic Affairs.

ACADEMIC HONORS AND PRIZES



DEAN'S LIST

Each session, the Office of Academic Affairs compiles a list of full-time students whose grade point averages for the previous session were 3.50 or higher, based upon a minimum of three courses exclusive of those taken satisfactory/unsatisfactory. Courses taken S/U must be passed.

ALPHA AND BETA SCHOLARS

At the end of each academic year, students (except graduating seniors) who have attained a cumulative grade point average of 3.85 or higher are designated as Alpha Scholars. Students attaining a cumulative grade point average of 3.70 or higher, but less than 3.85, are designated Beta Scholars. To achieve Alpha or Beta status, students must have taken a minimum of seven graded courses at W&J or in a program run by W&J (in which case letter grades transfer) during the year. Students who satisfactorily complete an off-campus study program or full-time internship may reduce the number of graded courses at W&J required for eligibility by four courses for each full semester spent off campus during the year. Alpha/Beta Scholar status is noted on the student transcript and recognized at a suitable College occasion.

GRADUATION WITH LATIN HONORS

The rank of a student at graduation will be determined wholly by the work done while at Washington & Jefferson College. In order to be eligible for the ranks of summa cum laude, magna cum laude, or cum laude, a student must have completed at least four 14-week terms of four-day classes each plus two Intersessions.

Eligible students whose grade point average for their full course is not less than 3.85 will be graduated summa cum laude; those whose grade point average is less than 3.85, but not less than 3.70, will be graduated magna cum laude; those whose grade point average is less than 3.70, but not less than 3.50, will be graduated cum laude.

GRADUATION WITH HONORS IN AN ACADEMIC MAJOR

To achieve honors, a student must display academic excellence beyond the classroom by successfully completing a substantial research or creative project, beyond regular classwork, in any area of study offered by the College. A project worthy of honors should be well researched and well crafted and should make an identifiable contribution to its field; these standards will be determined and verified by faculty in the project's area of study. In addition, the student should be able to communicate, by written and oral means, the details, rationale, and value of the project to specialists and non-specialists alike. Consequently, students awarded honors at W&J fulfill in a highly advanced way the goals of the College's liberal arts mission.

To qualify for honors, students should have an overall grade point average of 3.20 or above. Students may work for honors in either the junior or senior years. Students interested in pursuing honors should discuss potential projects with their chosen faculty directors no later than the spring proceeding the academic year in which they will file for honors. In the following fall, students working toward honors will file an "Intent to Complete an Honors Project" form with the Academic Status Committee, which will review all proposals. Once the honors project is complete, the student's work will be judged by faculty in the area of study; the student's effectiveness of communication to a collegewide audience will be judged by faculty both inside and outside the area of study. Successful completion of these requirements will earn the student honors, to be awarded by the College in the student's area of study.

Complete procedures for graduation with honors may be obtained from the Office of Academic Affairs or from the College's Web site. The student should consult with the chair or program director in the area of study concerning the criteria for honors-level work.

HONORARY AND DEPARTMENTAL SOCIETIES

A number of honorary and departmental societies have chapters at W&J. These include Phi Beta Kappa, which has been active on campus since 1937, and the following: Alpha Kappa Delta (sociology); Alpha Lambda Delta (first-year students); Alpha Psi Omega (theatre); Student Affiliates of American Chemical Society (SAACS); Gamma Sigma Alpha (Greek academic); Delta Omicron (music); Delta Phi Alpha (German); Delta Sigma Pi (business); Gamma Sigma Epsilon (chemistry); Kappa Delta Epsilon (education); Omicron Delta Epsilon (economics); Student Pennsylvania State Education Association; Phi Alpha Theta (history); Phi Sigma (biology); Pi Delta Phi (French); Phi Sigma Alpha (political science); Pre-Legal Society; Pre-Health Professions Society; Psychology Club; Sigma Delta Pi (Spanish); Phi Sigma Tau (philosophy); Sigma Tau Delta (English); Psi Chi (psychology); Sigma Pi Sigma (physics); and Order of Omega (Greek leadership).

ACADEMIC PRIZES

Certain academic departments annually award scholarship prizes to the highest and, in some cases, second highest upperclassmen in those departments. Candidates must have completed at least four sessions and two Intersessions at Washington & Jefferson College, with a cumulative grade point average of at least 2.33. Within the department concerned, candidates must have completed no less than three sessions beyond the introductory course with an overall grade point average of 3.33 or higher in all courses.

Prizes are well-bound books selected jointly by the recipient and the chair of the department. The books are stamped with the College seal.

The prizes are:

Art	Scholar in Art
Biochemistry	Scholar in Biochemistry
Biology	Edwin Scott Linton Prizes
Chemistry	Jesse W. Lazear Prizes
Economics	Benjamin Franklin Prize

Education	Walter Hudson Baker Prize Scholar in Education
English	John Livingston Lowes Prize William Holmes McGuffey Prize
History	Henry Willson Temple Prizes
ITL	The ITL Award for Independent Learning
Languages	J. Adolph Schmitz Prizes
Mathematics	Clyde Shepherd Atchison Prizes
Music	Scholar in Music
Philosophy	Edward Moffat Weyer Prize
Physics	George Winchester Prizes
Political Science	James Gillespie Blaine Prize James Clyde McGregor Prize
Psychology	Scholars in Psychology
Sociology	Scholar in Sociology
Theatre	Dudley R. Johnson Prize in Theatre Arts Jennifer Lynn Oliver Prize in Theatre

The following prizes have been established by endowments from private donors:

Emily M. Auld Memorial Prize in English—Awarded annually to a junior majoring in English who has achieved a high level of performance and demonstrates great promise for the future. Established by Frank L. Auld '35 in memory of his wife, Emily, a former senior English teacher at Trinity High School.

Friedrich R. Crupe Prize in International Trade—This award is supported by an annual gift from Friedrich R. Crupe to encourage the study of foreign language and international trade. A prize is awarded each year to a member of the senior class who has excelled in the study of international trade and foreign language. Students are evaluated for their performance in two areas: academic achievement and an essay that integrates some aspect of foreign language or culture and international economics or business.

The Charles P. Eaton Prize for Independent Work in the Liberal Arts—Established in honor of Charles P. Eaton '64 by his coworkers at C.P. Eaton & Associates, this

academic prize is awarded to the student who submits the most innovative and rigorous Honors project or independent study as determined by the academic division directors of the College. Special consideration is given to interdisciplinary projects.

Charles P. Eaton Prize for Entrepreneurial Studies—Established in 2004, in honor of Charles P. Eaton '64 by his coworkers at C.P. Eaton & Associates, Inc., this academic prize is given to a student who exhibits innovative and rigorous studies within the Entrepreneurial Studies Program.

The Dr. Mariano Garcia '39 Award in Mathematics—Established in 2005 by an endowment from Dr. Mariano Garcia '39, the annual award is given to one or more students to celebrate academic excellence in the study of mathematics. Annually, the mathematics department faculty will select one or two award recipients who have excelled in mathematics with preference given to an outstanding senior, a promising junior or sophomore, or both. Recipients may or may not be mathematics majors or minors.

Gilbert Award in Old English Literature—Provided by the will of Howard Worcester Gilbert, which offers an award for the best essay on Old English language and literature, beginning with Beowulf and extending to the year of 1060. The essay is to consist of either a general survey of the literature of the period or of a treatise on any author of that period.

Robert Harbison Bible Prize—Established by the will of Robert Harbison of Beaver County, Pennsylvania, the prize is awarded to the member of the senior class who passes the best examination on the Old and New Testaments.

Samuel Jones Classical Prize—Competition for this annual prize is open to members of the junior or senior class for significant independent research in an area of classical interest.

Samuel Jones Prize in Chemistry and Physics—This prize is alternated yearly between the departments of chemistry and physics. It is awarded to a member of the junior

or senior class who writes the best essay on a specific topic or attains the highest score on a departmental examination.

Josephine Markley Prize in Physics—Offered each year. Students in introductory physics courses are eligible to take an examination, with the prize going to the student achieving the highest examination score.

William G. and Belle M. Marshall Prize in Economics—Established in 1984 by James M. Marshall '40, in memory of his parents, William G. Marshall '11, trustee from 1949 until his death in 1957, and Belle M. Marshall. Preference for the award will be given to students demonstrating achievement and promise in economics and business.

M. Elizabeth McBurney Scholarship Prize—Created by a bequest from M. Elizabeth McBurney in 1987 with awards made annually to an upperclassman that has achieved high scholarship in history and demonstrates need. Preference will be given to descendants of former students of the Washington Seminary and in keeping with College scholarship policy.

A. Richard Oliver Prize in French—Established by students, friends, and colleagues of Dr. A. Richard Oliver, professor of French from 1947 until his death in 1976. Income from this fund is used annually for a book prize awarded to an outstanding student in French. If a student of French is not available to receive the prize, it will be awarded to a student in another foreign language.

Jennifer Lynn Oliver Prize in Theatre—Established by an endowment from Ms. Oliver's mother and stepfather, Page and Ray Bruno, other family, and friends, this prize is awarded annually to the graduating senior theatre major achieving the highest cumulative grade point average during his/her tenure at the College. The prize is given in memory of Jennifer Lynn Oliver '00, a gifted actress and scholar who made many noteworthy contributions to theatre and intellectual life at W&J.

The Richard S. Pett Academic Travel Award—Established in memory of Richard S. Pett by his wife, Lynne, and his daughters,

Melissa and Lauren, the Academic Travel Award goes to a deserving junior or senior majoring in a foreign language who desires to study abroad.

The Michael P. Rettger Memorial

Academic Award—This multi-year academic award goes to a promising sophomore or junior majoring in accounting who desires to begin his/her career with a public accounting firm. Established in memory of Michael P. Rettger '01 by his friends and co-workers at Ernst & Young LLP in Pittsburgh, the award is given to honor the memory of Mike Rettger, a bright young business man who died from a sudden illness in 2003.

Matthew Brown Ringland Prizes in the Social Sciences—The will of Josiah Ringland of Washington, Pennsylvania, bequeathed a sum to the College for the purpose of establishing a prize in the social sciences. Income from this sum is awarded annually by the faculty to two students who do the most outstanding work in “commerce, trade, finance, statesmanship, and international law.”

Alfred Henry Sweet Prize in History—Income from a fund given by students, friends, and colleagues of Dr. Alfred Henry Sweet creates a prize that is awarded annually to a student who has done the most competent piece of research in the field of history.

Nicholas C. and Josephine C. Tucci Memorial Prize in Chemistry—Awarded annually to a junior chemistry major who has demonstrated outstanding achievement and financial need. Established in memory of Nicholas C. and Josephine C. Tucci, community leaders and friends of W&J.

Nicholas C. and Josephine C. Tucci Music Prize—Awarded annually to a deserving student for the study of music during Intersession. A committee, named by the College, will select the winner based upon academic performance and interest and promise in music. Established by Josephine C. Tucci in memory of her late husband, Nicholas C. Tucci, community leader and friend of the College.

Maurice Cleveland Waltersdorf Award for Leadership—Established through a challenge

grant by his son, John M. Waltersdorf, member of the Class of 1946, and support from former students. An annual award is given to a student who has completed three full years at W&J and who best exemplifies academic excellence and promise as a leader in our free enterprise society. Dr. Waltersdorf was a professor and chairman of the economics department from 1924 to 1956.

Maurice Cleveland Waltersdorf Prize in Economics—Income from a fund given by friends and former students of Maurice C. Waltersdorf provides a prize that is awarded annually to the member of the graduating class who, as an economics major, attained the highest average in all work done in the Department of Economics.

Stelvio W. Zanolli '43 Memorial Scholarship Award—Established by the family, friends, and former students of Professor Zanolli, this scholarship award is given annually to a student who is eligible for financial aid and who has excelled in leadership at the College through athletics or other endeavors.

The Barbara Betler Greb and Edward Martin Greb Endowed Student International Travel Award Fund—Established by Dr. Edward Martin Greb, a member of the Washington & Jefferson College faculty since 1975, this fund commemorates Dr. Greb's appreciation of a quality college education that endeavors to widen students' horizons through affordable international travel opportunities. As directed by the Donors, this award may be available to one or more students in good standing regardless of class year who indicate a desire to travel internationally for college credit and meet the qualifying criteria for award consideration. Qualifying students will be considered based upon the criteria established by the appropriate review committee of the College and include the founding Donors fund establishment intent and student selection considerations.

Betty and Bill Saalbach Adam Smith Silver Pin Award—Established and endowed in 2007, by Bill and Betty Saalbach, and contributed to by alumni, faculty and friends, this endowed prize fund has been created to

support a qualifying economics major whom authors the outstanding senior thesis. The annual amount for the prize award provided by this Fund will be a \$500 cash prize, and the Silver Pin Award. This annual award shall be administered by the Economics and Business Chair and faculty in accordance with the above guidelines.

David and Kristin Steinberg Scholarship in Information Technology Leadership—

Established in 2005 by David and Kristin Steinberg to provide scholarship aid to one Washington & Jefferson College student, as chosen by the Chair of the ITL Department in conjunction with department faculty. This scholarship will be awarded with preference given to a sophomore or junior student who has completed four ITL courses by the end of the semester in which an application for scholarship is made.

The Dr. Frederick H. Wilson Memorial Academic Prize in Economics—

Established endowment by family and friends in memory of Dr. Frederick H. Wilson, W&J Class of 1943, and Emeritus Trustee of the College until his death in June 2004. Dr. Wilson was a well respected business and community leader who displayed a deep seated love and active interest in the educational value of his alma mater. Preference for this annual award is to be given to an upperclassman who has demonstrated achievement and promise in economics and business. Award selection will be made in accordance with the College's academic recognition guidelines.

SPECIAL PRIZES AND AWARDS

The Alumni Prize for Original Research in the Life Sciences—This annual award was established by Bruce H. Wainer '69 to recognize one undergraduate original research project in the field of biology or psychology.

Birch Scholarship Award—Presented annually to an outstanding athlete who has won at least two letters in the same or various sports and has achieved an academic standing of graduation with distinction. Donated in 1938 by James M. Wray, it honors his mother, Harriet J. Birch, whose six brothers all were W&J graduates.

Barbara Ransohoff Burnett Prize in Music—

Established in 1991 by former College President Howard J. Burnett in memory of his wife, Barbara Ransohoff Burnett, this prize recognizes an outstanding student in music, whose participation either in performing ensembles or classroom studies demonstrates high achievement, active interest, and strong commitment to the standards of excellence set by the Department of Music. The award is given in honor of Mrs. Burnett, a devoted member of the College and community, who nurtured support of the fine and performing arts at Washington & Jefferson College.

The Robert L. Ceisler '40 Pre-Law English Award—

Established by Mr. and Mrs. Ceisler to honor and encourage a pre-law student and a member of the junior class who has excelled in clear, concise writing. In selecting the recipient, preference is to be given to students who are currently or have in the past been involved in the study of Judaism or Jewish heritage.

The Coblentz-Silliman Leadership Prize—

This award is derived jointly from an endowment by Mr. and Mrs. George W. Coblentz in memory of their son, and from a similar fund provided by the Board of Christian Education of the Presbyterian Church in the U.S.A. It is presented annually to a student, selected by the College officers, who has been a leader in College activities, a good student, and who has exerted a distinct Christian influence on classmates.

Donald W. Ebbert Award—Given each year in memory of Donald Ward Ebbert of the Class of 1928 to the student completing the junior year whose effort and determination to achieve in academics, athletics, or other school activities have gained the respect, admiration and friendship of students and faculty alike.

The Frederick J. Frank Leadership

Award—Endowed in honor of Dr. Frederick J. Frank, who served W&J for 38 years (1947–1985) as faculty member, director of admission, and dean, the prize is awarded to an upperclass student whose leadership has benefited either W&J, the city of Washington, or the student's home community. The award criteria are leadership, campus involvement, and community service.

The James W. Gargano Memorial Award—

Presented annually for the best essay by a senior English major, the winner to be determined by members of the English department from among essays submitted by professors of that year's departmental seminars. The award commemorates the devotion to scholarship of James W. Gargano, an outstanding scholar of American literature and former chairman of the English department.

The James W. Hanna Prize in Education—

Established in 1996 by Dr. Hanna's sister, Ms. Linda Hanna Weaver, and by students, colleagues, and friends, the prize is awarded annually to an outstanding education student to encourage the successful completion of teacher certification. Preference in selection is given initially to graduates of Washington High School. If no such student is qualified, graduates from other high schools may be considered. Financial need shall be considered only between candidates of equal ability and character. The prize winner is selected by the president of the College, the dean of the faculty, and the chair of the education department.

Vira I. Heinz Study and Travel Award—

Established through an annual grant by Mrs. Clifford S. Heinz of Pittsburgh, this award makes it possible for a woman member of the junior class to study abroad during the summer before her senior year in college. Selection is made by a committee named by the College, and is based upon the applicant's outline of her plans for constructive use of the award, and her ability to be a favorable representative of the United States abroad. Applicants must have an overall grade point average of 2.50 or above.

The Elizabeth A. Holmes '97 Music

Prize—Presented annually to enhance the music opportunities and experiences of a junior or senior student who is active in the Wind Ensemble, Choir, or Chamber Singers and has a demonstrated interest in music.

The Dudley R. Johnson Prize in the

Theater Arts—Established by friends and colleagues of Dudley R. Johnson, dean of students at W&J from 1951 to 1967, and awarded annually to a graduating senior who, during his or her years at the College, has made the most significant contribution to the theatre arts.

Pete Kimmel Track Award—

Through a fund established by a donation of Mr. and Mrs. C. R. Kimmel in memory of their son, Robert C. (Pete) Kimmel '66, who was the first W&J graduate to die in Vietnam, an annual Pete Kimmel Award is provided to the outstanding member of the W&J track squad.

The Daniel Latchney Prize in

Chemistry—Presented annually to an outstanding junior or senior chemistry major and awarded by the Committee on Health Professions to a student registered in the Pre-Health Program. The student must exhibit distinguished academic achievement and good character. This prize was created in memory of this member of the Class of 1978 by his wife, Lisa '78, and his daughters, Jessica and Sarah.

The Richard R. Martin Prize in

Psychology—Given annually to an outstanding student majoring in psychology. This award was established in 2002 by faculty members in psychology who worked closely with Richard R. Martin in appreciation of his leadership as chair of the department.

Adlai E. Michaels Prize—

This prize is awarded to an outstanding sophomore chemistry major selected by the chemistry department in honor of Dr. Adlai E. Michaels, professor of chemistry at W&J from 1959 to 1983.

Michael Missentgis Athletic Memorial

Award—In memory of their son, Mike Missentgis, a member of the Class of 1973 and of the football team, Mr. and Mrs. James Missentgis of Jersey City, New Jersey, presented to Washington & Jefferson College a monetary gift. Income from this gift will be used for a plaque to be presented to the outstanding freshman football player.

The Patterson, Atchison, Shaub, Dorwart, and Thomas Mathematics Award—

Established by former students in memory of these W&J mathematics professors. The award is to encourage students to pursue projects in which they investigate the application of mathematics to a problem in one of the sciences, business, economics, industry, government, or other discipline. Interested students or faculty from any major should contact the chairman of the mathematics department.

Paul L. Reardon Award—Presented annually to the junior athlete who demonstrates academic, athletic, and leadership qualities.

The James Rule 1898, Howard Hughes '11, and Robert Murphy '06 Fund—A fund in honor of James Rule, Howard Hughes, and Robert Murphy was established by an anonymous donor. Income from the fund is to be used to award a prize of at least \$2,000 each year at Thanksgiving time to a student in the sophomore year at the College to be selected by the president of the College.

Walter S. Sanderlin Prize in History—This prize was established by Robert A. Johnson, Esq. '66, to honor Dr. Walter S. Sanderlin who served as a member and chairman of the history department at W&J from 1946 to 1985. The prize is a monetary award given to a senior history major with a cumulative average among the top 10 percent of history majors and among the top 10 percent of the senior class, who has been accepted into graduate school in any discipline of the humanities or social sciences.

The David K. Scarborough Leadership Award—Awarded annually at Honors Day to a junior class member as selected by the president of the College. A tuition prize and plaque recognize the recipient's service to the College community, individual leadership, and academic achievement. David K. Scarborough served Washington & Jefferson College from 1956 to 1992 as basketball coach and then administrator, retiring as vice president and dean of student affairs. This fund is provided by alumni and associates of Dr. Scarborough to honor his leadership by example, devotion to development of the whole student, and dedication to Washington & Jefferson College.

PHI BETA KAPPA

Kappa of Pennsylvania (est. 1937) is the local chapter of Phi Beta Kappa, a national society honoring students for academic excellence in the liberal arts and sciences. Although important, a high grade point average does not by itself guarantee membership: to be eligible for election, candidates must have taken at least three quarters of the courses required for their degree in the liberal arts. New members are elected by

resident members at the College by secret ballot. Guided by individual judgment, they evaluate candidates according to the following criteria: intellectual curiosity and growth, good character, a love of learning for its own sake, and distinguished academic achievement in a challenging selection of courses. Phi Beta Kappa is an independent organization with a self-perpetuating membership; it is not an agency of Washington & Jefferson College.

STUDENT LIFE



Student life at Washington & Jefferson College includes a varied program that gives students an opportunity to develop personal and leadership skills. Clubs, fraternities, sororities, varsity and intramural sports, student publications, campus radio, dramatics, music, a student activities board, and Student Government all keep the W&J spirit alive. All campus activities reflect the belief that learning is a continuous process that takes place throughout the college experience, with campus activities complementing the learning that happens in the classroom. We are proud of the diverse programming we provide.

Students at W&J are encouraged to participate in all areas of college life. College faculty and staff are eager to enjoy opportunities to meet outside of the classroom or office. We have a strong community feeling on our campus with students.

COMMUNITY STANDARDS

W&J students are expected to show respect for the law and the rights of others, a concern for the dignity of the individual, and an appreciation for the educational objectives and interests of the College. All students are expected to maintain standards of conduct consistent with these principles and to take personal responsibility for their conduct. A detailed description of the W&J community standards can be found in the online Student Handbook at www.washjeff.edu/handbook.

STUDENT GOVERNMENT

Washington & Jefferson College's Student Government exists to promote standards of student freedom and maturity and the interests of the student body. It is organized to give guidance and support to all student organizations and to allocate student activity funds. Legislative power within the Student Government is vested in an assembly of student representatives who are elected within three weeks following the first week of classes. Both residential students and commuting students are represented in the governing body. Student Government is deeply involved in the life of the College, with student members serving on College committees.

CAMPUS ORGANIZATIONS

A variety of organizations on campus provide opportunities for social and intellectual growth. These groups are organized and conducted by students in cooperation with faculty advisors and cover a wide range of interests.

Academically-based clubs include, but are not limited to, the Accounting Society, Business Club, Economics Club, Franklin Literary Society, Philosophy Club, Pre-Health and Pre-Legal Societies, and the Psychology Club. Language and arts clubs include the Spanish, German, and French clubs, along with an Art Club and Student Theatre Company.

Musical organizations include the College Choir, Camerata Singers, Jazz Ensemble, and Wind Ensemble. Tours and concerts are annual events for the musical organizations.

Publications include *Pandora*, the College yearbook; the *Red & Black*, the College newspaper published by student staff; and the student literary journal, *Wooden Tooth Review*.

WNJR, the College radio station, serves the College community 24 hours a day, 365 days a year from an on-campus studio with music, news, sports, and discussion programs. Broadcasting and technical positions are open to students.

Religious organizations include the Student Christian Association and the Inter-Varsity Club, devoted to the fostering of an understanding of Christianity; the Orthodox Christian Fellowship, for students showing interest in Orthodox Christianity; the Hillel Fellowship, fostering principles of Jewish culture and religion; and the Newman Club, providing spiritual development opportunities for Catholic students.

Community service organizations present on campus include Alpha Phi Omega, a national co-ed service fraternity, G.I.V.E. (Getting Involved in Volunteer Experiences), and Big Brothers Big Sisters of W&J. Each group coordinates and participates in various volunteer and fundraising activities throughout the year. The Office of Volunteer Services also runs the Presidents' Service Network. The Presidents' Service Network works to promote civic engagement by educating the campus about real community needs, encouraging involvement in meaningful community service, and celebrating

volunteer achievements. By holding regular meetings that bring together students, faculty, and staff, the Network aims to connect campus clubs, organizations, and offices with the information, support, and ideas they need to make their community service efforts flourish. It believes a campus that values creating and maintaining a strong sense of volunteerism builds community and character.

For a complete listing of student organizations, please visit the Student Activities Web site at www.washjeff.edu.

SOCIAL LIFE

Social life is abundant at W&J. Many social programming groups exist to offer a great variety of social outlets for students. The Student Activities Fee funds student programs, Monticello's coffeehouse, as well as Student Nite Life programming, off-campus trips, and the larger campus events such as the Homecoming Dance, Earthfest, the W&J Street Fair, Spring Concert, and International Week, sponsored by the Asian Student Association, the Black Student Union, and the International Club.

Social organizations include six national fraternities and four national sororities. Fraternities are Alpha Tau Omega, Beta Theta Pi, Delta Tau Delta, Phi Delta Theta, Phi Gamma Delta, and Phi Kappa Psi. Sororities are Delta Gamma, Kappa Alpha Theta, Kappa Kappa Gamma, and Pi Beta Phi.

The Interfraternity Council is formed by representatives of the national fraternities to support and expand the influence of fraternities and regulate those activities which are jointly supported by the fraternities.

The Panhellenic Council serves a similar purpose for the sororities.

ATHLETICS

Organized sports are an important part of college life. The women's intercollegiate varsity sports at W&J include basketball, cross country, field hockey, golf, soccer, softball, swimming and diving, tennis, track and field, volleyball, water polo, and lacrosse. Intercollegiate teams for men include baseball, basketball, cross country, football, golf, lacrosse, soccer, swimming and diving, tennis, track and field, water polo, and wrestling. A

hockey club is active in the winter. The College is a member of the National Collegiate Athletic Association (NCAA-Division III), Presidents' Athletic Conference (PAC), Eastern College Athletic Conference (ECAC) for both men's and women's athletics and the Empire 8 in women's field hockey. An extensive intramural program offers a variety of sports for men and women who do not necessarily want to compete at the varsity level. Club sports include ice hockey, women's rugby, men's rugby, men's soccer and equestrian. In compliance with the Equity in Athletics Disclosure Act, a summary report on participation rates, financial support, and other information is available, upon request, from the Department of Athletics.

CAMPUS SECURITY

The campus of Washington & Jefferson College is generally safe and the security and safety of students and residence halls are of primary concern. A collective effort on the part of security personnel, residence life staff, and, most importantly, on the part of students themselves is required to maintain effective campus security. The Department of Protection Services is staffed 24 hours a day. Washington & Jefferson College is in compliance with all requirements of the College and University Security Information Act of 1988.

CAREER SERVICES

The Office of Career Services, located in the Rossin Campus Center, offers career counseling and information to students of every class level and major. Students can participate in a wide variety of workshops designed to help with identifying career opportunities, job search preparation, and transitioning from W&J to the next stage in their life.

Also available are one-on-one career counseling, career assessment tools, and a career library to aid in career planning. In addition, Career Services can help students find internships and learn about the graduate school admission process.

The Office of Career Services utilizes the campus e-mail system and offers subscriptions to listservs that distribute information about internships and employment opportunities to

students and alumni. There are bulletin boards in the Career Corner, located outside the office, where selected hard copies of opportunities are posted. Booklets on résumé writing, portfolio preparation, interviewing basics, job search strategies, and job search correspondence as well as other publications also are available in the Career Corner.

For the event calendar, a list of useful links, and access to other on-line resources, visit the Career Services Web site at www.washjeff.edu/careerservices. The Office of Career Services is open Monday through Friday from 9 a.m. to 5 p.m. with extended hours available by appointment.

VOLUNTEER SERVICES

Service to others plays a vital role in student life at Washington & Jefferson College. Many W&J students volunteer their time and efforts for a wide range of community organizations and the number is increasing every year. The Office of Volunteer Services (OVS) and student-run service groups engage the College community in solutions to local and national problems by raising awareness and encouraging hands-on participation.

OVS is filled with the inspired energy of students, whose hopes and dreams for a better world find practical outlets in a myriad of community service projects. The connection to neighbors outside W&J becomes a vital learning and socializing experience for these students and a significant factor as they make plans for the future.

STUDENT COUNSELING SERVICE

The Student Counseling Service provides free, confidential services for W&J students. Services include brief individual counseling, up to eight sessions per academic year, as well as referral services, group counseling, walk-in consultations, emergency psychological services, and outreach programming. The Center also offers psychological consultation to students, faculty, staff, or parents who are concerned about a student. Regular hours are 9:00 a.m. to 5:00 p.m., Monday through Friday during the academic school year. Students may call for an appointment, and open hours are reserved for walk-ins each day.

After hours emergency consultations are also available by calling Protection Services and asking to speak to the counselor on call.

CULTURAL DIVERSITY

The Office of Multicultural Affairs assists in fostering a community that contributes to the successful recruitment, retention, and graduation of underrepresented students at Washington & Jefferson College. The Office of Multicultural Affairs enhances the academic and social experience of all students through outreach and support. In keeping with the mission of the College, the office works in a partnership with faculty to promote lifelong learning one student at a time. The office believes that diversity strengthens the community and enhances the collegiate environment. Through collaboration, multicultural affairs initiates, develops, and implements multicultural education in the areas of policies, services, and programs for the entire student body. Creating a more intelligent, respectful, diverse, and connected community is the challenge. We ask that all students join in this commitment.

STUDENT HEALTH SERVICES

All full-time students enrolled in the College are entitled to use Student Health Services. The service is not for faculty, staff, part-time students, or their families. It is a walk-in clinic offering primary care. The staff consists of two part-time physicians and two full-time RNs. The physician is available daily to see students referred by the nurse. Monday through Friday, one nurse covers the hours of 8 a.m. to 4 p.m. and one nurse covers the hours of 3:30 to 10:30 p.m. On weekends a nurse is available for consultation by phone.

MOTOR VEHICLES

The College provides parking for students on an assigned priority, with upperclass students receiving highest priority. Parking space is limited. A valid permit must be displayed at all times.

Applications for parking permits may be obtained and returned to the Office of Protection Services. There is currently no charge for permits. Permits are nontransferable.

Violations of parking regulations may result in fines and loss of parking permission. Persistent violations may result in towing or booting at the owners expense.

Washington & Jefferson College assumes no liability or responsibility for loss or damage to any vehicle parked in a College parking lot (leased or owned) or any vehicle parked on College property.

PERSONAL PROPERTY

Students are responsible for their own property, and the College is not liable in case of fire, theft, or damage.

RELIGION

Washington & Jefferson College is an independent institution subject only to the control of its Board of Trustees. The atmosphere and ideals of the College are Christian without being sectarian, and individual students enjoy complete freedom in their religious beliefs. The College pastor provides direction for campus religious life.

RESIDENCE AND MEALS

All students are required to live in College residence halls for four years, except married students or those whose homes are within commuting distance of the College. Married and commuting students must apply to live off-campus and receive approval from the Office of Residence Life. Students may be excused from compliance with the College residency requirement in the event residence space is unavailable and under special circumstances as determined by the Office of Residence Life. A housing accommodation form must be completed and approved by the office of residence life if you desire special accommodations for medical reasons or a disability as defined by the American with Disabilities Act (ADA). Allergies and many medical issues are not disabilities and do not receive special housing accommodations. All students who are not commuting and/or married are required to pay the board fee. A Student Food Committee reviews all requests, suggestions, and complaints regarding meals and food service.

A detailed statement on residence regulations is found in the online Student Handbook at www.washjeff.edu.

ADMISSION



Washington & Jefferson College maintains a selective admission policy in order to attract the caliber of student necessary to fulfill the College's purpose of graduating men and women of competence and maturity, prepared to contribute substantially to the world in which they live. To this end, the Office of Admission seeks students of high academic ability and promise from a wide variety of backgrounds.

Inquiries and correspondence regarding admission should be addressed to the Office of Admission, Washington & Jefferson College, 60 South Lincoln Street, Washington, PA 15301. Washington & Jefferson College is a member of the National Association of College Admission Counselors and abides by its Statement of Admission Practices and Procedures. The College admits students regardless of race, color, sex, sexual orientation, religion, age, disability, national origin, or any other legally protected status.

ADMISSION REQUIREMENTS

Each applicant is required to present a minimum of 15 academic units in the following distribution: three units of academic English; three units of academic mathematics (Algebra I, Geometry, Algebra II); two units of the same foreign language; one unit of history, social studies, or natural science; and six more academic units from the above areas. Most applicants have more than the minimum academic units. Admitted students from 2003 through 2008 had an average of 21 academic units.

When considering an applicant for admission, primary emphasis is placed upon the academic record and rigor of curriculum, followed by the highest available standardized test scores. Applicants are encouraged to send all scores to the Office of Admission.

APPLICATION PROCEDURES

Application materials are available through the Office of Admission or via the Internet at www.washjeff.edu or www.commonapp.org. To be considered for admission, applicants are asked to submit the following materials:

- Part 1 and Part 2 of the W&J Application or The Common Application®;
- An official high school transcript;

- Official SAT I (administered prior to March 2005), ACT, or SAT Reasoning Test (administered from March 2005 forward) scores. Score reports should be sent to W&J. The SAT code for W&J is 2967. The ACT code for W&J is 3746.
- A 250–500 word personal statement or high school graded paper;
- A school report to be completed by your guidance/college counselor;
- A \$25 nonrefundable application fee in the form of a check or money order made payable to Washington & Jefferson College. The fee is neither refundable nor credited to the student's account. The College participates in the College Board and the American College Testing fee waiver programs for those students deemed underprivileged by reliable sources. The College also waives the application fee for those who visit the campus or apply online via our Web site or www.commonapp.org.

TIMETABLE

Early Decision Application Deadline (binding)	December 1
Early Decision Notification	December 15
Early Action Application Deadline (nonbinding)	January 1
Early Action Notification	January 15
Regular Decision Application Deadline (nonbinding)	March 1
Regular Decision Notification	March 15
Candidates' Reply Date	May 1

APPLICATION PLANS

Regular Decision

The regular decision application is for students who wish to submit an application to W&J before the application deadline of March 1. Regular decision is a nonbinding application, and regular decision applicants will have an admission decision by April 1. However, if the student would like to submit a nonbinding application prior to the March 1 deadline, the College recommends that he or she consider

the Early Action Plan so the student can receive a decision before April 1.

Early Decision

The early decision application is for those students who have determined W&J to be their first choice college. A completed application for admission, along with the Early Decision Request Form, must be submitted to the Office of Admission by December 1 of the senior year. Candidates will be notified of the status of their application by December 15. Each student accepted under this plan will be required to submit an advance deposit of \$200 by January 15. This deposit is nonrefundable and will be credited to the first-term billing. If accepted under the Early Decision Plan, the student agrees to withdraw all applications to other colleges.

Early Action

The early action application deadline permits those students who have submitted a completed application to be notified prior to the regular decision deadline. Unlike early decision, early action is nonbinding, and the regular application procedure is followed.

Early Admission

The Early Admission Program is for those high school juniors who possess high academic credentials and desire to enter college one year early. Evaluation of the candidate's academic and social maturity is based on the following:

- Student must submit parents' written approval.
- Student must submit written approval and recommendations from his/her high school principal.
- A personal interview will be held with a member of the Office of Admission.
- Records of application, College Board scores, and other data will constitute a complete file, whether full- or part-time student.
- Preference will be given to academically high-ranking students.
- It is the responsibility of the student to secure a high school diploma upon completion of the first year of college.

ADMISSION DECISIONS

Please refer to the timetable located within this section for the various notification dates. A decision is made after receipt of the application, official high school transcript, standardized test results, letters of recommendation, activities list, and personal statement. Accepted applicants are asked to confirm their intent to enroll by submitting an advance deposit of \$200 accompanied by the Admission Reply Form. Payment must be made no later than May 1. This nonrefundable deposit is credited toward the first-term billing.

INTERVIEWS AND CAMPUS VISITS

The Office of Admission strongly recommends that candidates and their parents visit W&J and take the time to get to know the students, faculty, and administrators, as well as the campus facilities. A personal interview, while not required, is often desirable for the prospective student.

An applicant who wishes to visit the College should make an appointment with the Office of Admission at least one week in advance. The Office of Admission, located in the Admission House, is open Monday through Friday, 9 a.m. to 5 p.m., and Saturdays from 9 a.m. to noon (September through May). The Office of Admission also offers visit opportunities Monday through Friday during the summer months. To schedule an interview or campus tour, candidates may contact the Office of Admission at 724-223-6025 or 888-W-AND-JAY (926-3529), or via the Internet at www.washjeff.edu.

Prospective students wishing to have a more intensive look at W&J can make arrangements for an overnight visit. Please contact the Office of Admission at least one week in advance to allow for arrangements to be made with a student host.

JAY ADMISSION COUNCIL

The Jay Admission Council (JAC) is composed of W&J alumni and parents. Council members work with the admission staff in the recruitment of qualified students from their immediate geographical areas. Members are knowledgeable

about the application process and are kept abreast of current information through College publications and admission correspondence.

The JAC is structured to serve the needs of prospective students and should be used as a local resource to supplement a campus visit.

DEFERRED ADMISSION

Those students who desire to defer their admission to pursue nonacademic experiences such as employment, community service, or travel may secure deferred admission to W&J. The regular application procedure is followed. Upon notification of acceptance, the student should submit the advance deposit of \$200 along with the Admission Reply Form, indicating a preference for deferred admission. W&J will then reserve a place for the student to enter the following year.

MERIT SCHOLARSHIPS

Each year, Washington & Jefferson College rewards distinguished academic performance by offering merit scholarships to selected members of the entering freshman class. Scholarships vary based on the candidate's level of achievement and are renewed annually subject to academic performance.

CREDIT FOR ADVANCED PLACEMENT (AP) COURSES

Students who take Advanced Placement (AP) exams should request that their scores be sent to the College in care of the Office of the Registrar. A minimum score of 4 is necessary for any consideration of credit or placement to be given. If approved by the appropriate academic departmental chairperson and vice president for academic affairs, credit and/or advanced placement toward graduation will be awarded.

CREDIT FOR COLLEGE COURSES TAKEN IN HIGH SCHOOL

Students who have taken courses during high school for college credit should request that an official transcript be sent to the College in care

of the Office of the Registrar. The registrar will determine the applicability of these courses to W&J course requirements, with the approval of the vice president of academic affairs.

INTERNATIONAL BACCALAUREATE

Students who have successfully completed International Baccalaureate (IB) coursework will receive consideration for credit based on individual evaluation.

TRANSFER STUDENTS

Students who wish to transfer to Washington & Jefferson College from an accredited college or university may apply for admission. Transfer students must submit a completed transfer application, a \$25 nonrefundable application fee, a completed Transfer Clearance Form, and official transcripts from all previous colleges attended.

Additionally, transfer students are required to submit an official high school transcript with standardized test results from the SAT I: Reasoning Test (administered prior to March 2005), the SAT Reasoning Test (administered from March 2005 forward), or the American College Test (ACT). The College also agrees to waive the application fee for those who visit the campus. Students whose work at another college has been unsatisfactory will not be permitted to transfer to W&J. If accepted, transfer students are required to make an advance deposit of \$200 (nonrefundable), which will be credited toward the first-term billing. A complete health form must be submitted before matriculation.

Final decision concerning transfer is made through the Office of Admission, and transfer credit is equated through the registrar. Any course accepted from another college will be recorded as credit by the registrar. Only grades attained at W&J will be used to compute a student's grade point average.

A transfer student is awarded a degree from W&J degree after successful completion of all W&J degree requirements, although the Freshman Forum is waived for such students. Transfer students must complete a minimum of 17 courses at W&J and must fulfill the requirements for general education and an

academic major as described in the section entitled "Curriculum" within this catalog. Transfer students will be assigned to faculty advisors for consultations regarding their majors upon matriculating to W&J.

READMISSION

Any student wishing to gain readmission to the College must file an application for readmission. A student dismissed for academic reasons first contacts the Office of Academic Affairs to request the appropriate form; one dismissed for social reasons begins with the Office of Student Life; and one who has withdrawn voluntarily applies directly to the Office of Admission. If the student has completed any college work elsewhere since withdrawing, an official transcript of all work must be submitted. Returning students with unpaid financial obligations to W&J must meet those obligations before matriculating.

INTERNATIONAL STUDENTS

Washington & Jefferson College welcomes applications from international students. To apply, a student must successfully complete secondary school requirements and send the following application materials to the Office of Admission: a completed application form, an official transcript in English, SAT I or ACT scores, a personal statement, letters of recommendation, citizenship and/or United States residency status, and a \$25 nonrefundable application fee in U.S. currency. For students whose native language is not English, the College reserves the right to require results from the Test of English as a Foreign Language (TOEFL).

Other components of a student's application, including diplomas, the General Certificate of Education (G.C.E.), ordinary and advanced-level coursework, and recommendations will also be considered.

International students are eligible to receive institutional merit-based scholarships, but must be prepared to meet all college expenses through personal sources. The Immigration and Naturalization Office of the United States Department of Justice requires international students to submit documentary evidence of financial support for the entire period of stay in the United States. Therefore, the

appropriate immigration form (I-20) will be forwarded to students who have been accepted and have submitted a \$200 advanced deposit and evidence of financial support. The \$200 nonrefundable deposit will be credited to the first term billing.

FINANCIAL INFORMATION



The College has a system of annual charges that applies to all categories of students. Checks should be made payable to “Washington & Jefferson College” and mailed to the Business Office at 60 South Lincoln Street, Washington, PA 15301. In addition, the College accepts MasterCard, Discover, and Visa for payment of charges.

SCHEDULE OF FEES

A complete schedule of tuition, fees, room and board, and deadlines for payment for the current academic year can be found at ww.washjeff.edu or by calling the Business Office at 724-223-6014.

BILLING

Any charges assessed during an academic semester will be due as indicated on the interim statement. A student who, by special action of the College, is allowed to enroll after the opening of a term will be required to pay full tuition, room, board, and fees for that semester. If such enrollment is during Intersession, the charges will be at the rates specified in the applicable Intersession catalog.

Students taking fewer than three courses in either regular session (fall or spring) or who enroll only for Intersession will be considered part-time and will be billed as such.

The Business Office considers e-mail as its official notification method. Students should check their e-mail regularly. For those who prefer a monthly payment option, Washington & Jefferson College offers Tuition Payment Plan (TPP), an interest-free payment plan that is administered by Educational Computer Systems, Inc. (ECSI). ECSI may be reached by calling 1-888-549-3274 or via their Web site, at www.ecsi.net. The College does not offer direct payment arrangements through the Business Office.

COURSE OVERLOAD POLICIES

Full-time students who register for more than 36 credits (nine courses or the equivalent) in an academic year will be assessed an additional tuition charge for each additional credit in

excess of 36. These charges will appear on billings for the spring semester. Please note that this calculation is based on what students have registered for in the year, not what is completed. It is also important to note that registration is tabulated at the end of the Add/Drop period, not at the end of the term.

The overload rate does not apply to course registration in physical education and wellness (PED), applied music performance courses (MUA), or the theatre practicum course, THR 151.

LATE PAYMENT FEE

A student who fails to pay for tuition, fees, room, and board by September 15 for the fall semester, or February 15 for the spring semester will be charged a late payment fee for each semester.

ADMINISTRATIVE WITHDRAWAL

A student who has not finalized financial arrangements with the Business Office by October 15 for the fall semester or by March 15 for the spring semester may be subject to administrative withdrawal and will be denied use of College facilities and will be asked to vacate campus. Reports of grades, transcripts, and diplomas will be issued to students only after all financial obligations have been satisfied.

ADVANCE DEPOSIT

All students are required to pay a nonrefundable advance deposit prior to registration for the fall semester of each new academic year. Generally, this deposit is due by April 1, and assures confirmation of academic scheduling and reserved space in College housing for residential students. The advance deposit will be credited to the student's fall billing, but will be forfeited should the student withdraw from the College. A late advance deposit fee will be charged for payments received after the due date.

SECURITY DEPOSIT

Each entering student is required to submit a security deposit. Charges will be made against this deposit for damages and loss of equipment in either classrooms or residence halls. Damages which cannot be specifically attributed to an individual student will be assessed as 'common damages' to floors or wings of the residence hall in which they occur. If replenishment of the deposit is necessary, a statement will be provided as charges are incurred. Any remaining balance from this non-interest bearing account will be refunded when the student leaves the College.

IDENTIFICATION CARD

First-year students are responsible for obtaining an identification card from the Business Office. Students are required to have their ID cards in their possession at all times while at the College. Students are not permitted to loan their ID card, nor use another student's ID card for services or access to College facilities.

There is no charge for the original issue; however, there is a replacement fee to be paid at the time it is reissued.

STUDENT HEALTH INSURANCE

All students are charged for student health coverage, which covers one year, on the fall semester billing. Students already protected by other health insurance will need to sign a waiver card and provide a copy of their current health insurance identification card to receive a credit to their account. This form is on the Business Office Web site, www.washjeff.edu, in printable format.

No health coverage will go into effect until payment is received and a health insurance enrollment form is completed and processed by the Business Office.

Pamphlets describing the coverage and provisions of the health plan are available at the Business Office. Students should familiarize themselves on the provisions and requirements of the policy as it may not cover all type of

claims. Students should use the College Health Service as their first place of treatment for illness or injury. This will enable students to receive a waiver of the deductible.

REFUNDS FOR STUDENTS WHO WITHDRAW OR LEAVE

Students who withdraw or take a leave from the College during a semester will be eligible for a refund only if the schedule outlined below results in an overpayment of the account.

Students who withdraw or take a leave and are eligible for a refund will receive a prorated credit for unused tuition, fees, and board only. Once a student accepts a housing assignment and occupies the room, the entire room charge for that semester becomes the student's responsibility.

Recipients of financial aid who are eligible for a credit should be aware that adjustments could be made in their financial aid awards that would reduce the amount of any refund they receive. Washington & Jefferson College is responsible for the administration of all applicable federal funding based on federal guidelines. If a student receives Title IV federal financial assistance, which includes SEOG and Pell Grants, and Perkins, Stafford, and PLUS Loan funds, the College will calculate the return of funds based upon these guidelines.

Once the requirements governing the application and return of Title IV federal financial assistance have been satisfied, students who have been determined to be eligible for a prorated refund of tuition, fees, and board will receive credit based on the following schedule:

- 100 percent of the charges, less an administrative fee and the forfeiture of the advance deposit, should the student withdraw or leave before the end of the add/drop period;
- 90 percent of the charges should the student withdraw or leave within the first week after add/drop is completed;
- 50 percent of the charges should the student withdraw or leave between the first week after add/drop is completed

and 25 percent (in time) of the semester;

- 25 percent of the charges should the student withdraw or leave between the end of the first 25 percent (in time) and 50 percent (in time) of the semester; or
- None after the mid-point (50 percent in time) of the semester has been completed.

Board will be credited on a prorated basis.

Should the prorated credit result in an overpayment of the student's account, a refund check payable to the student will be issued and mailed to the home address of record.

Prorated charges and aid resulting in a balance due the College will be due and payable in full within 30 days of the withdrawal date.

REFUND FOR ENROLLED STUDENTS

Refunds of credit balances on student accounts will be made only after any applicable state or federal financial aid has been received, and the combination of payments and financial aid result in an overpayment. There will be no refunds made based upon pending payments or financial aid.

Credit balances created by federal Title IV financial assistance will be automatically refunded unless a signed Permission to Retain Credit Balance Form is on file in the Business Office.

In order to receive refunds for all other credit balances, students will be required to provide a written request to the Business Office. Unless specified in writing by the student, checks will be mailed to the home address of record.

Current financial information can be found on the Business Office Web site at www.washjeff.edu by selecting Offices & Departments and then Business Office followed by Schedule of Tuition, Fees, Room & Board.

FINANCIAL AID



The financial aid program at Washington & Jefferson College is designed to encourage outstanding achievement and to make the College affordable. Financial need is the prerequisite for awarding most of the College's financial aid. Financial need is the cost of education less those resources available from the family. Each family is expected to contribute their share through contributions from income and assets from both the parent(s) and the student.

In addition to need, other criteria for awarding aid are scholastic standing, good character, and extracurricular achievement. Students receiving financial assistance are expected to abide by the regulations governing College life. Each student is also expected to demonstrate academic promise and maintain satisfactory academic progress. Financial aid awards from the College may be reviewed, and adjustments made, if students do not meet these expectations. In awarding aid, the College tries to estimate the total contribution a student will make to the community of scholars.

SOURCES OF AID

Financial assistance is available in several forms: grants or scholarships, loans, and campus employment. Grants are based on financial need while college scholarships are based on merit. Each is a gift and does not have to be repaid. Financial assistance may be in the form of grants only, but usually is a combination of grant, loan, and/or campus employment. Aid recipients are expected to invest in their education through the use of educational loans and student employment.

Federal, state, private, and institutional funds are the basic sources of financial assistance. The federal government provides assistance through the following programs: Pell Grants, Supplemental Educational Opportunity Grants (SEOG), Academic Competitiveness Grant (ACG), National Science and Mathematics Access to Retain Talent Grant (SMART), Perkins Loans, Federal Work-Study (FWS), and the Federal Family Education Loan Program (FFELP), which includes the Federal Stafford Loan and the Parent Loan for Undergraduate Students (PLUS). For all federal programs, the Title IV academic year is defined as 24 credits over a minimum of 30 weeks.

Financial assistance through federal programs is administered in accordance with government regulations and availability of funds. Changes in federal regulations or funding levels may result in a change to a student's financial aid package.

Many states provide financial assistance through state grant programs. Pennsylvania residents may receive assistance through the Pennsylvania Higher Education Assistance Agency (PHEAA). Other state grants are made based upon the policies and guidelines of those granting agencies.

Please note that once curricular requirements for graduation are met, eligibility for federal and state assistance is affected. Students choosing to continue taking classes should check with the Office of Financial Aid regarding any change in eligibility.

Students should investigate private grants or scholarships that they may be eligible to receive. Local civic groups, churches, schools, or parents' employers may have grants or scholarships available. The Office of Financial Aid must be notified of all outside scholarships received. College policy toward outside aid is to use those funds to reduce or eliminate remaining financial need. If the total outside aid creates an over-award, adjustments are made first to self-help aid (loans and work study). Adjustments to College grants occur only if no other option can resolve the over-award.

Washington & Jefferson College provides assistance to eligible students in the form of grants, scholarships, loans, and campus employment. College funds are used to supplement the sources of financial aid to meet the needs of deserving full-time students, up to a maximum of eight terms.

SCHOLARSHIPS

HOWARD J. BURNETT PRESIDENTIAL SCHOLARSHIP AND W&J SCHOLARS AWARD

Each year, Washington & Jefferson College rewards distinguished academic performance by offering merit scholarships to selected full-time members of the entering freshman class. For both the Howard J. Burnett Presidential Scholarship and the W&J Scholars Award, selection is competitive. Awards are made to

academically excellent students as determined by SAT (or ACT) scores, high school class rank, and other criteria, and are based upon the recommendation of the vice president of enrollment and the director of admission.

Admission applicants are considered and notified after the review of their application for admission has been made. No separate application is required, although each scholarship applicant is encouraged to have an on-campus interview. Scholarships are renewed annually (maximum of eight terms of funding) subject to achievement of the required minimum cumulative grade point average (3.10 for Presidential and 2.80 for Scholars). Students must also maintain full-time enrollment status, remain in a degree-seeking program, and abide by the regulations governing College life.

For more information, contact the Office of Admission.

JOSEPH HARDY SR. SCHOLARSHIP PROGRAM

The Joseph Hardy Sr. Scholarship Program provides financial assistance to full-time students in the Entrepreneurial Studies Program. Each applicant will be judged upon academic record. This scholarship may be renewed annually subject to a review of academic performance and continued study in the Entrepreneurial Studies Program.

DEAN'S AWARD

This scholarship is awarded to selected incoming members of the freshman class based upon academic performance in high school, distinguished achievement outside the classroom, and good citizenship. No formal application for the scholarship is necessary. Scholarship amounts may vary. Recipients must be enrolled as full-time students in a degree-seeking program of study. This award may be renewed for up to a maximum of eight terms provided the student maintains a 2.50 cumulative grade point average and abides by the regulations governing College life.

W&J CHALLENGE GRANT

Members of the incoming freshman class who show academic promise may be awarded the W&J Challenge Grant. No formal application for this scholarship is necessary. Awards are renewed annually (maximum of eight terms of funding) subject to achievement of the required

minimum cumulative grade point average of 2.50, adherence to all regulations governing College life, and maintenance of full-time status in a degree seeking program. If at least a 2.80 grade point average is achieved at the end of the first year, the amount of the Challenge Grant will increase and remain this amount in future years as long as the minimum 2.80 grade point average is maintained. In some cases, this increase in Challenge Grant may replace other institutional grant funds. Falling below this 2.80 grade point average requirement upon the next review will result in the award being reverted back to the original amount at the lower grade point average requirement.

ALUMNI SCHOLARSHIP

Washington & Jefferson College will award Alumni Scholarships to students whose father and/or mother is a graduate of the College. No formal application is required for this scholarship. Students must be enrolled in a full-time, degree-seeking program of study. This award may be renewed for up to a maximum of eight terms provided the student maintains a 2.50 cumulative grade point average and abides by the regulations governing College life. A merit scholarship awarded supersedes any previous alumni scholarship offer.

SCHOLARSHIP RENEWALS

The Office of Financial Aid will annually review merit scholarship renewal eligibility after the spring term for any students awarded a Presidential, Scholars, Dean's, or Alumni Scholarship or W&J Challenge Grant. Students who meet the minimum grade point average requirement specified will have their scholarships automatically renewed for the upcoming academic year. For students who do not meet the requirements, the Office will use the cumulative grade point average earned to determine eligibility for another scholarship program. When the next annual review is done, the student has the opportunity to have their initial scholarship reinstated at its original level if the higher grade point average requirement is attained. Any student who drops below the lowest grade point average requirement for scholarship and has filed a FAFSA will be considered for W&J Grant assistance if the student displays financial need.

Any student who takes the initiative to complete summer coursework at W&J that

results in attainment of the required minimum grade point average may submit an appeal letter to the director of financial aid asking for reinstatement of the scholarship for the upcoming academic year. Appeals will not be accepted after the end of the fall term.

Merit scholarships are awarded for a maximum of eight terms. Students graduating early forfeit any remaining terms of eligibility.

GRANTS, LOANS, AND EMPLOYMENT

W&J COLLEGE GRANT

In addition to the scholarship programs listed above, the College awards funds in the form of grants to assist students with their educational expenses. Students enrolled full time must demonstrate financial need as determined by the FAFSA in order to be offered a W&J Grant. Financial need must be shown in subsequent years for this grant to be renewed. College grants are awarded for a maximum of eight terms.

GOVERNMENT AID PROGRAMS

Several federal financial aid programs are available to students. They are Pell Grants, Supplemental Educational Opportunity Grants (SEOG), ACG and SMART grants, Federal Work-Study (FWS), Perkins Loans, and loans from the Federal Family Education Loan Program.

Three programs, the SEOG, Perkins Loans, and FWS, are administered by the College and designed to assist students with the greatest financial need. It is required that every student applying for financial assistance apply for a Pell Grant. All federal loans require submission of a master promissory note (MPN).

Additional information on the federal financial aid programs is available from secondary school guidance counselors, by contacting the Office of Financial Aid, or visiting www.studentaid.ed.gov.

VETERANS

Washington & Jefferson College is an approved institution for the training of students eligible for veterans' benefits. Application for the educa-

tional benefits available under these laws should be made to the Veterans' Administration Office well in advance of the date the veteran plans to enter college. After receiving authorization for training from the Veterans' Administration, veterans should forward it immediately to the College to facilitate registration. Students should address inquiries regarding veterans' educational benefits to the assistant registrar, Washington & Jefferson College, 60 South Lincoln Street, Washington, Pennsylvania 15301.

STUDENT EMPLOYMENT

Part-time employment is available for students on campus. This employment is supported by the Federal Work Study program and the College work program. Preference for campus jobs is given to students who demonstrate financial need and are awarded federal work study. The Office of Financial Aid works with both students and offices to fill positions. On campus jobs are advertised on the College's Web site and at an annual job fair that is held at the beginning of the Fall term. Advertisements for positions in the local community received by the Office of Financial Aid will be posted in the office.

FINANCIAL AID APPLICATION PROCEDURES

All financial aid awards are for a one-year period. Changes in a student's situation with respect to any of the criteria used for awarding financial aid may result in an increase, decrease, or withdrawal of aid. Any family experiencing a change in financial circumstances (unemployment, disability, etc.) should contact the Office of Financial Aid for assistance. All students applying for aid from the College are required to apply for a PELL Grant and State Grant (PHEAA for Pennsylvania residents). Students and parents can be assured that all financial aid statements will be held in strict confidence.

FRESHMEN

Students planning to attend the College and wishing to apply for financial aid from W&J are required to submit the Free Application for Federal Student Aid (FAFSA). The FAFSA should be filed as soon as possible after January 1 in the senior year of high school. It is recommended that the form be filed by February 15

to insure that the results are received by the College before March 15. This application is available from the secondary school counselor in the guidance office or online at www.fafsa.ed.gov. Financial aid awards for the fall and spring term will be made when the FAFSA has been received by the College and the student has been accepted for admission. For students selected for verification, these awards are estimated until the required tax documentation has been received and reviewed.

UPPER-CLASS STUDENTS

Upper-class students wishing to renew their financial aid, or those wishing to apply for the first time, should submit the FAFSA by the College's priority deadline of March 15. Pennsylvania residents wishing to be considered for the Pennsylvania state grant must submit the FAFSA by May 1 at the latest. Students selected for verification must submit the tax documentation requested by the College before a financial aid award is processed for the academic year. Notification of financial aid awards is usually made in early summer.

TRANSFER

Prospective transfer students who wish to apply for financial assistance should complete the FAFSA as soon as possible. Financial aid awards will be made when the FAFSA has been received by the College and the student has been accepted for admission. For students selected for verification, these awards are estimated until the required tax documentation has been received and reviewed.

SUMMER

Students interested in applying for financial aid for the summer term should complete a summer Financial Aid Request Form in addition to filing the FAFSA. Not all aid programs are available during the summer months.

STUDY ABROAD

Any student who is considering studying abroad for a term or academic year must first meet with the Director of Study Abroad and Off-Campus Programs. The Office of Financial Aid will then work with the student to determine what financial aid is available for the specific program of study. In most cases, federal and state aid can be used to cover costs of an approved study abroad program. Use of W&J funding

(grants and scholarships) to assist with the cost of a trip is contingent on program approval from the Director of Study Abroad and Off-Campus Programs and the term of study. Please note that tuition remission and tuition exchange cannot be used to cover expenses while studying abroad.

Students wishing to study abroad during intersession should be aware that trip costs cannot be covered by W&J funds (grants or scholarships). Students may use any remaining federal loan eligibility or apply for a private educational loan. Students need to complete a Cost of Attendance Adjustment Form in order for the Office of Financial Aid to determine eligibility.

SATISFACTORY ACADEMIC PROGRESS

Students are expected to maintain a certain level of academic progress that will enable them to successfully complete the requirements for graduation over a four-year period. To ensure that students are making adequate progress, the Academic Status Committee meets after each term and notifies students who are not meeting academic standards. Students may be warned, placed on probation, continued on probation, or dismissed from the College. For more specific information regarding this academic review, refer to the Academic Regulations section of this College catalog.

In addition to the review of academic standing completed by the Academic Status Committee, the Office of Financial Aid is required to monitor academic progress in regard to financial aid eligibility. The Federal Higher Education Amendments mandate that institutions of higher education establish and enforce standards of satisfactory academic progress. This helps to ensure that students are moving toward successfully completing the program of study for which they are receiving financial aid in a timely manner. Washington & Jefferson College applies these standards to all institutionally awarded funds (including tuition remission and tuition exchange) and all federal Title IV programs (including all grants and loans). Students receiving grant funds from the state are subject to the standards set by the state agency governing the funds. Some lenders require satisfactory academic progress for private loans as well.

The following requirements are established to define satisfactory academic progress as it relates to the renewal of financial assistance.

Failure to meet minimum requirements will result in the loss of financial aid eligibility for the upcoming academic year.

POLICY REQUIREMENTS

Financial aid academic progress evaluations will occur annually after the end of the academic year (normally after the spring term). Freshman students who begin in January will be evaluated after the end of each fall term.

Two criteria are involved in evaluating academic progress in regard to financial aid eligibility—the number of courses successfully completed and cumulative grade point average.

COURSE COMPLETION

Students must have successfully completed the following minimum number of courses by the conclusion of each academic year (Fall, Intersession, Spring) to maintain satisfactory academic progress:

First Year:	6
Second Year:	12
Third Year:	20
Fourth Year:	28
Fifth Year:	34 or 36 (depending on catalog)

Years reflected above are measured in time and not grade level. To meet the minimum course completion requirement, a student must receive a passing letter grade and earn credit in the course. Physical education (PED) credits do not count toward course completion since they are handled separately from the other courses required for graduation.

Full-time students may receive financial aid for no more than a five-year period (10 terms). Periods of enrollment without financial aid assistance are included in this calculation. Periods of non-enrollment (for students whose education is interrupted) will not be counted.

Even though students show minimal academic progress to maintain financial aid eligibility, specific aid program requirements may limit the amount and/or number of awards they may receive prior to earning their degree. For example, W&J will award a maximum of eight terms of College funded aid to full-time students, although some federal programs may allow additional terms of eligibility.

GRADE POINT AVERAGE

Students must achieve the following minimum cumulative grade point average by the end of each academic year to maintain satisfactory academic progress:

First Year:	1.17
Second Year:	1.74
Third Year:	1.94
Fourth Year:	2.00
Fifth Year:	2.00

Years reflected above are measured in time and not grade level.

OTHER CONSIDERATIONS

Transfer Students—For transfer students, courses accepted for credit at W&J from the institution previously attended will be used to evaluate course completion. Only grades earned at W&J will be used to calculate the cumulative grade point average. The academic progress review for transfer students who enter at the beginning of the academic year or mid-year will occur at the end of the spring term.

Readmission—Students who are readmitted to W&J after a period of non-enrollment will be evaluated using the regular standards regarding course completion and grade point average, taking into consideration all coursework from past and present. In regard to the five year maximum time frame, periods of non-enrollment are not considered.

Part-time Enrollment—For part-time students, the normal time frame for completion of a course of study will vary. Progress evaluation for part-time students will be determined by the completion of courses attempted. Students enrolled at this level must complete 2/3 of the number of courses attempted. The same cumulative grade point average requirements apply as described under Policy Requirements.

Repeated Courses—For those students who repeat a course, both attempts will count toward course completion. Only the most recent grade will be used to determine the cumulative grade point average.

Course Audits—Audited courses do not count toward course completion and also are not used

in the determination of the cumulative grade point average.

Incomplete Grades—Incomplete courses will not be counted as completed until a passing letter grade is received. They also will not be included in the cumulative grade point average calculation until a letter grade is assigned. According to the College registrar, incomplete grades must be completed in the first four weeks of the succeeding session in which the student is enrolled, or the grade of I is converted into an F. The student is responsible for informing the Office of Financial Aid of a grade change and asking for an immediate re-evaluation of progress through an appeal.

Withdrawn Courses—Courses from which a student has withdrawn do not count as courses completed and are factored in to the maximum time frame of five years. (For example, one term of courses at a W status count as a term toward the 10-term maximum). These courses do not affect calculation of the cumulative grade point average.

Transfer Credit—Courses accepted for credit taken at another institution will be counted toward course completion, but will not be used in calculation of the cumulative grade point average.

Satisfactory/Unsatisfactory—For courses taken satisfactory/unsatisfactory, only a satisfactory grade will count toward course completion. Neither an S grade nor a U grade affects the cumulative grade point average.

APPEAL PROCESS

The Office of Financial Aid will notify students who are not maintaining satisfactory academic progress that they have lost financial aid eligibility for the upcoming academic year. Students may appeal for reinstatement of aid by taking the following steps:

- Submit an appeal in writing to the director of financial aid citing specific circumstances that prevented maintenance of satisfactory academic progress (trouble with coursework, illness, death in the family, etc.) and explain, if applicable,

what specific steps have been taken to ensure progress in the future (enrollment in summer courses, etc.). The appeal must contain the student's signature; an e-mail is not acceptable.

- Enclose supporting documentation when possible (for example, submit a medical statement if illness is the basis of the appeal).

Appeals must be received within 30 days of notification of loss of financial aid eligibility. The Financial Aid Appeal Committee will evaluate appeals and may request additional documentation when deemed necessary. Students will be notified of the committee's decision in the mail. Reinstatement of aid is for one academic year, after which aid is again withdrawn until satisfactory academic progress is achieved. Only students experiencing extreme circumstances will be given the opportunity to appeal for reinstatement of financial aid a second time. It is at the discretion of the Financial Aid Appeal Committee to decide to approve an appeal for one term based on individual circumstances.

Summer school coursework may be the basis of an appeal, though courses must be completed before the appeal is considered. Students should note that courses not taken at W&J cannot be calculated in the student's grade point average but can count toward course completion requirements. Incomplete grades must be changed to a passing grade in the time frame designated by the registrar in order to count toward course completion. Transfer credits will not be considered toward course completion until they are officially reflected on the W&J transcript.

ENDOWED STUDENT LOAN FUNDS

College loan funds may be granted to students who, due to extenuating financial circumstances, may be deemed eligible. This assistance will be granted based upon a review of the circumstances by both the senior accountant and the director of financial aid. Repayment terms commence registered as a full-time student. Proof of enrollment is required.

Repayment in monthly installments of principal and interest over a maximum period

of ten years is required for College loans with no penalty for earlier repayment.

VERIFICATION POLICY

GENERAL INFORMATION

Any student who files a FAFSA may be chosen for a verification review. This process is required by federal regulation and the College is mandated by this regulation to adhere to the procedures explained below.

The verification process entails the review of tax documents and household information to ensure the accuracy of the FAFSA application. The selection of an application for verification does not mean that the College believes that a student's information is incorrect. Some applications are selected for review on a random sample basis. Some are selected upon a set of common edits developed by the U.S. Department of Education which check data for consistency and logic. Others are checked against prior year applications that students have submitted.

For incoming freshmen and transfer students, financial aid awards are processed, though the financial aid remains estimated until the verification process is complete. No federal or college financial aid will credit to students' accounts until this process is complete. This can result in late fees and loss of permission to register for upcoming terms for students whose accounts are not paid by the deadlines specified by the Business Office.

For returning students selected for verification, financial aid award letters will not be processed until the review process is complete. Lack of payment to the Business Office by their required deadlines can result in late fees and loss of permission to register for upcoming terms.

NOTIFICATION OF SELECTION

Students selected for verification review will be notified via mail at their home address beginning in April for the upcoming academic year. A student may be selected during the academic year as well. Letters sent will indicate the documents required and students are given three weeks to submit the information. Three reminder letters will be sent via mail four weeks apart. After the fourth and final notification letter, the Office of Financial Aid will not communicate with students again about this process.

DOCUMENTATION NEEDED TO COMPLETE VERIFICATION

1. SIGNED copies of federal tax returns, including all schedules, for the student applicant and his/her parent(s). Copies of all W2s are required as well. Independent students need not submit parental information; however spousal information is required.
Please note that the tax information required is for the tax year preceding the academic year.
2. Full completion of either a Dependent or Independent Verification/Supplement Form, which can be found in the Forms section of the Office of Financial Aid's Web site. A worksheet will also be sent via mail with the notification letter. Be sure to follow all instructions on the form and make sure all signatures are present.
3. Additional documentation may be requested at the discretion of the Financial Aid Director. For example, families who own a business will have to complete a Parent Business Value Verification Form and families who receive Social Security Income will need to submit a 1099.

NONCOMPLIANCE

If the required documentation is not submitted, the following may occur:

1. No financial aid for the term or academic year.
2. Future applications for financial aid may not be processed.
3. The financial aid application material may be forwarded to the U.S. Department of Education for their review.

TIME PERIOD

Following is the length of time you have to provide the requested documentation to the Office of Financial Aid:

- *Federal Pell Grant*
A valid Student Aid Report (SAR) must

be submitted by students' last date of enrollment for the academic year. Students selected for verification have 120 days beyond the last day of their enrollment to complete the verification process.

- *Federal Stafford Loan*
Verification must be complete before the Office of Financial Aid will certify a Stafford loan and the certification must be processed prior to students' last date of enrollment.
- *Federal Work Study*
Students who are eligible to work on campus through the work study program will not be allowed to work until the verification process is complete and eligibility for this program is confirmed.
- *Perkins Loan, SEOG and W&J College Grants*
Verification documentation must be received and processed by the Office of Financial Aid resulting in a financial aid award no later than the last date of enrollment for the academic year.

CORRECTION INFORMATION

When possible, the Financial Aid Office will make electronic corrections to students' FAFSA applications. These corrections will generate an updated Student Aid Report sent via paper or electronic means. The estimated family contribution may change based on the corrections made.

COMPLETION OF THE VERIFICATION PROCESS

When the verification process is complete, students will immediately receive:

1. A letter confirming that the verification review is finished.
2. An award letter indicating any change to the financial aid package for freshmen and transfer students. For upperclassmen, an initial financial aid award letter will be processed and mailed.

REFERRALS

If it is determined that a student has received funds which they were not eligible to receive, the student must repay the amount. If a repayment

is not made, the overpayment must be referred to the U.S. Department of Education. No further applications for financial aid will be processed by the U.S. Department of Education or W&J's Office of Financial Aid.

RETURN OF TITLE IV FUNDS POLICY

The Financial Aid Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60 percent of a payment period or term. The federal Title IV financial aid programs must be recalculated in these situations.

If a student leaves the institution prior to completing 60 percent of a payment period or term, the financial aid office recalculates eligibility for Title IV funds. Recalculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula:

$$\text{Percentage of payment period or term completed} = \frac{\text{the number of days completed up to the withdrawal date}}{\text{the total days in the payment period or term. (Any break of five days or more is not counted as part of the days in the term.)}} \times 100$$

This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula:

$$\text{Aid to be returned} = 100 \text{ percent of the aid that could be disbursed minus the percentage of earned aid, multiplied by the total amount of aid that could have been disbursed during the payment period or term.}$$

If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student would be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution.

If a student earned more aid than was disbursed to him/her, the institution would owe the student a post-withdrawal disbursement which must be paid within 120 days of the

student's withdrawal.

The institution must return the amount of Title IV funds for which it is responsible no later than 45 days after the date of the determination of the date of the student's withdrawal. Refunds are allocated in the following order:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Federal Perkins Loans
- Federal Parent (PLUS) Loans
- Federal Pell Grants for which a return of funds is required
- Federal Academic Competitiveness Grants (ACG) for which a return of funds is required
- Federal SMART Grant for which a return of funds is required
- Federal Supplemental Opportunity Grants for which a return of funds is required
- Other assistance under this title for which a return of funds is required (e.g., LEAP)

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(2008–2009 Academic Year)

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Charles R. Ream, *Professor Emeritus of Education*. L.H.D., Washington & Jefferson College; Ph.D., M.Ed., B.S., University of Pittsburgh.

William D. Foland, *Professor Emeritus of Physics*. Sc.D., Washington & Jefferson College; Ph.D., M.S., B.A., University of Tennessee.

+Deceased, January 18, 2008

++Deceased, July 30, 2008

+++Deceased, May 22, 2008

Edward E. Sweet Jr., *Professor Emeritus of Biology*. Ph.D., Litt.M., B.S., University of Pittsburgh.

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John J. Gregor (1989), *Joseph A. Hardy Sr. Professor of Economics and Entrepreneurial Studies*. Ph.D., M.A., The Pennsylvania State University; B.A., St. Anselm's College.

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Stanley B. Myers (1971), *Psychology*. Ph.D., M.A., Southern Illinois University; B.A., Southern Colorado State University.

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James S. West (1997), *Economics/Business*. Ph.D., University of Nebraska; M.A., Mankato State University; B.A., St. Cloud State University.

Michael Woltermann (1979), *Mathematics*. Ph.D., M.S., The Ohio State University; B.A., University of Dayton.

Roman W. Wong (1978), *Mathematics*. Ph.D., Rutgers University; M.A., Sam Houston State University; B.S., Chinese University of Hong Kong.

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Elizabeth A. Bennett (1995), *Psychology*. Ph.D., M.S., Princeton University; B.A., Williams College.

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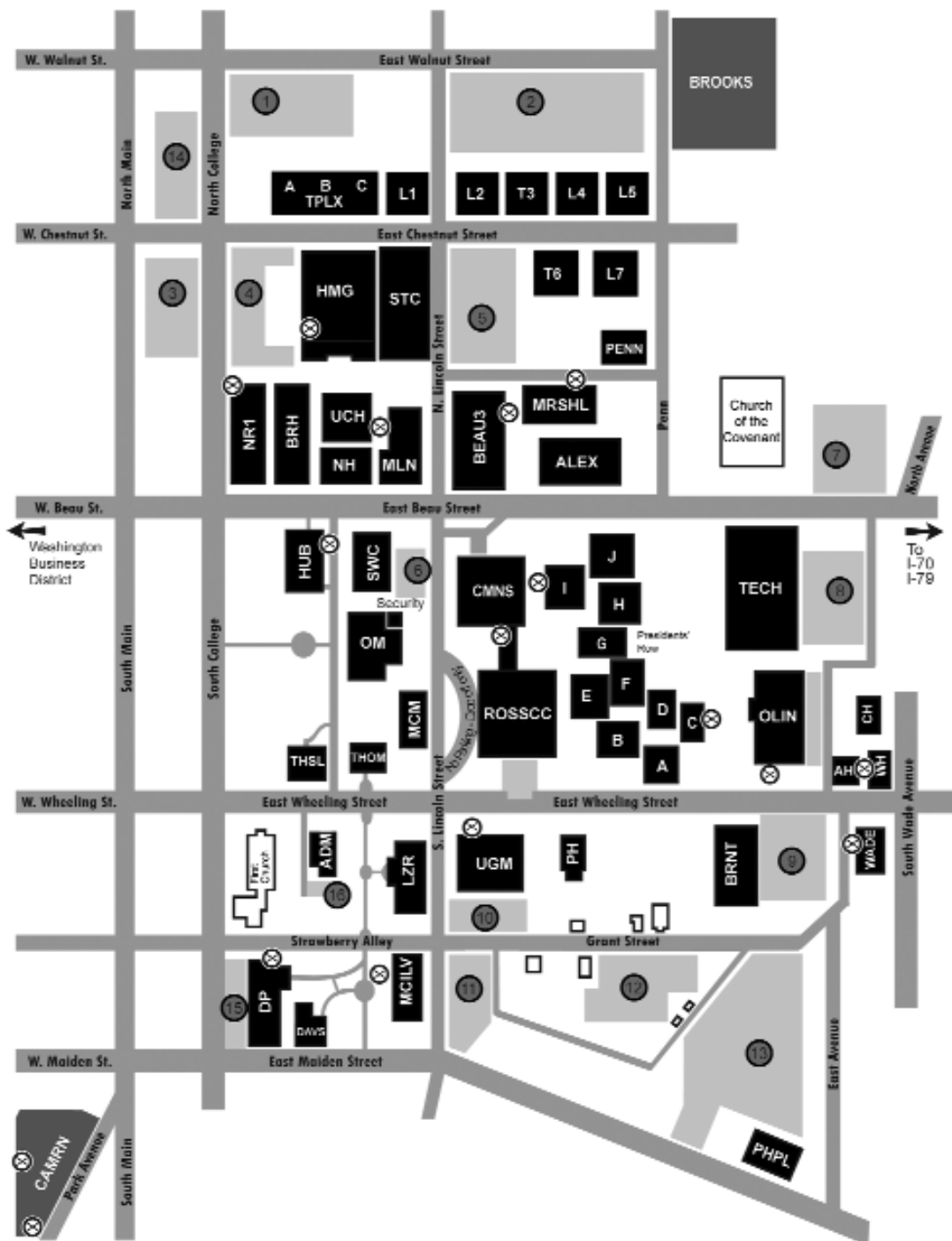
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CAMPUS MAP



CAMPUS MAP LEGEND

Name of Location	Abbrev	Key	Parking	Residence Hall	Note
Admission House	ADM	E3			
Alexander Hall	ALEX	C5		X	
Alumni House	AH	E7			
Beau III Hall	BEAU3	C5		X	
Beta Theta Pi	L5	B6		X	
Bica-Ross Hall	BRH	C3		X	
Brooks Park	BROOKS	A6			
Burnett Center	BRNT	E7			
Cameron Stadium	CAMRN	G1			
Carriage House	CH	D8			
College Street Lot Parking	3	B2	X		
Commons, The	CMNS	D5			
Commuter Lot	7	C7	X		Lower Lot Weekdays Only 7am-5pm
Davis Hall	DAVS	F3			
Delta Gamma	L7	B6		X	
Delta Tau Delta	L2	B5		X	
Dieter-Porter Life Sciences Bldg	DP	F3			
Dieter-Porter Lot Staff Parking	15	F3	X		
Grant Street 2 Staff/Student Parking	12	F6	X		
Grant Street Faculty/Staff Parking	11	F5	X		
Henry Memorial Gymnasium	HMG	B3			
Hub, The	HUB	D3			
Kappa Alpha Theta	T3	B5		X	
Kappa Kappa Gamma	L4	B5		X	
Lazear Hall	LZR	E4			
Library Lot Reserved Staff Parking	10	E5	X		
Lincoln Street Lot Student Parking	5	B5	X		
Marshall Hall	MRSHL	C5		X	
McIvaine Hall	MCILV	F4			
McMillan Hall	MCM	D4			
Mellon Hall	MLN	C4		X	
New Residence Hall	NR1	C3		X	
North Hall	NH	C3		X	
Old Main	OM	D4			

Name of Location	Abbrev	Key	Parking	Residence Hall	Note
Olin Fine Arts Center	OLIN	E7			
Penn House	PENN	C6		X	
Phi Gamma Delta	T6	B5		X	
Physical Plant	PHPL	G7			
Pi Beta Phi	L1	B4		X	
President's House	PH	E5			
Presidents' Row: Adams	A	E6		X	
Presidents' Row: Buchanan	B	E5		X	
Presidents' Row: Cleveland	C	E6		X	
Presidents' Row: Filmore	F	D6		X	
Presidents' Row: Grant	G	D6		X	
Presidents' Row: Harrison	H	D6		X	
Presidents' Row: Jefferson	J	D6		X	
Presidents' Row: Lincoln	I	D5		X	
Presidents' Row: Monroe	E	D5		X	
Presidents' Row: Washington	D	D6		X	
Rossin Campus Center	ROSSCC	D5			
Security	SECURITY	D4			
Staff Parking	4	B3	X		
Staff Parking	14	B2	X		
Swanson Tennis Courts	STC	B4			
Swanson Wellness Center	SWC	D4			
Taylor Lot Student Parking	13	F7	X		
Tech Center Lots Staff/Student Parking	8	D7	X		
Technology Center	TECH	D7			
Theme House Student Parking	2	A5	X		
Thistle Physics Bldg	THSL	E3			
Thompson Hall	THOM	E4			
Tri Plex: Phi Kappa Psi	TPLX-A	B3		X	
Tri Plex: Alpha Tau Omega	TPLX-B	B3		X	
Tri Plex: Phi Delta Theta	TPLX-C	B3		X	
U. Grant Miller Library	UGM	E5			
Upper-Class Hall	UCH	C3		X	
Visitor Parking	6	D4	X		
Visitor Parking	9	E7	X		
Visitor Parking	16	E3	X		
Wade House	WADE	E8		X	
West Lot Student Parking	1	A3	X		
Whitworth House	WH	E8		X	