



# Academic Catalog 2007-2008

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## A Profile of Wittenberg

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### **Student Enrollment:**

Wittenberg enrolls more than 2,100 full-time students, representing nearly every state and dozens of countries. The greatest concentration of the students is from the northeastern and midwestern regions of the United States, but Wittenberg strives to attract a student body that is broadly representative of the economic, cultural and racial diversity of our society.

Wittenberg faculty are gifted teachers, and classes are kept small to help maximize the direct teacher-student contact. As a liberal arts and sciences college, Wittenberg's curriculum is designed to offer a broad choice of majors, each of which seeks to expose students to the full spectrum of scholarly achievement – to prepare them for productive lives with the skills of perception, communication, critical thinking and judgment.

While the classroom is the heart of the Wittenberg enterprise, the educational mission is deliberately extended into social and cocurricular life, to breathe opportunity into leadership and other skills. More than 100 student organizations, 22 intercollegiate sports, club sports, study abroad, internships, campus jobs – all furnish important options for students to explore careers and practice conflict management, persuasion and teamwork.

Since its founding Wittenberg has been affiliated with the Evangelical Lutheran Church in America, a connection that has helped the university preserve its commitment to producing graduates who have considered their own personal values and take an active interest in the health of their communities. Similarly, Wittenberg's affiliation with Springfield has always brought tangible benefits to its hometown college. As a small urban area close to both Columbus and Dayton, Springfield offers numerous opportunities for recreation as well as educational and professional growth.

### **Accreditation:**

The university is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. The Higher Learning Commission is located at 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602, and its telephone number is (800) 621-7440. Wittenberg is also accredited by the American Association of University Women. The Department of Education is accredited by the National Council for Accreditation of Teacher Education (both initial and advanced preparation levels), the Department of Chemistry is accredited by the American Chemical Society, and the Department of Music is an accredited member of the National Association of Schools of Music.

Wittenberg is a member of the American Council on Education, the Association of American Colleges and Universities, the Association of Governing Boards of Colleges and Universities, the Ohio College Association, the Ohio Foundation of Independent Colleges, the Association of

Independent Colleges and Universities of Ohio, the National Association of College and University Business Officers, the College Board, the Council on Undergraduate Research, and EDUCAUSE.

**Consortia:**

Wittenberg benefits from membership in numerous consortia. The Marine Science Educational Consortium provides the opportunity for Wittenberg students to enroll for a semester-long program in marine science at the Duke University Marine Laboratory in Beaufort, North Carolina. The World Affairs Council of Greater Cincinnati promotes enrichment programs with institutions in Indiana, Kentucky and Ohio. The Southwestern Ohio Council for Higher Education, composed of 24 institutions, promotes cooperation among the member colleges and universities. The International Educational Association of Ohio Colleges and Universities promotes the international aspect of higher education through workshops and institutes. Through OhioLINK, Wittenberg students have access to more than one billion items, from the libraries of more than 80 colleges and universities; in addition, the Online Computer Library Center further connects Wittenberg to information about library holdings around the nation and the world. Wittenberg also holds membership in several study abroad consortia including the Institute for the International Education of Students, the International Student Exchange Program, the Council of International Educational Exchange, and Denmark 's International Study Program.

## History & Academic Mission

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Wittenberg was one of the earliest colleges to be founded in what was at the time a frontier region of the United States. In the early 19th century a movement known as American Lutheranism was breaking at many points with the tradition of the Old World. In 1836, pastors adhering to the use of the English language separated from the Joint Synod of Ohio and organized the English Evangelical Lutheran Synod of Ohio.

In 1842, this new synod voted unanimously to establish a theological and literary institution that would teach in English and serve American students. The Ohio group was joined by the Synod of the West, which included Indiana, Kentucky, Michigan and Illinois. Wittenberg was named after the German university in Wittenberg, Germany, where Martin Luther posted his famous 95 theses and where William Shakespeare, in his play, sent the young Hamlet for his early schooling.

Founding President Ezra Keller was interested in locating Wittenberg in a central location of the state, near the National Road, over which German and other immigrants moved westward through Springfield. On March 11, 1845, the Ohio Legislature issued a charter to the board of directors to open a new college in Springfield.

When Wittenberg began, it offered the traditional classical curriculum of Latin, Greek, Hebrew, moral philosophy, religion and mathematics but also included an emphasis on geology and other emerging sciences. Its founders were opposed to slavery and to undue foreign influences in education and religion.

In the past century the university has more than doubled in size and facilities and has greatly enlarged its endowment. In addition, continued curricular reforms have resulted in greater attention to the breadth of the liberal arts and a stronger sense of responsibility to the community.

Wittenberg's mission is to develop the whole person – intellectually, spiritually, aesthetically, socially and physically.

Wittenberg University strives to educate students by developing in harmony the intellectual, spiritual, aesthetic, social and physical qualities that characterize wholeness of person. Wittenberg's primary purpose is to provide a learning environment and a teaching faculty of superior quality committed to liberal arts education and designed to impart knowledge, inspire inquiry and encourage independent thought so that Wittenberg men and women will live responsibly, think critically and creatively, judge rationally, communicate effectively, appreciate the aesthetic, and develop a commitment and enthusiasm for learning that will last throughout their lives.

Wittenberg, related to the Evangelical Lutheran Church in America, seeks to manifest its Christian commitment and Lutheran heritage. For academic and social integrity, Wittenberg

encourages an environment of respect for all people and diverse beliefs. However, the university also encourages critical assessment of personal faith, beliefs and ethics. The university community challenges its members to perceive themselves as servants in society through clarification, assessment, and development of their spiritual beliefs and ethical values as these are manifested in academic, personal and social pursuits.

Wittenberg encourages an understanding and appreciation of the fine and performing arts – music, literature, theatre, dance and the visual arts – to enrich life’s aesthetic experience. It believes that the rewards from such study and performance significantly enhance the lives of its students. It believes that developing their ability to communicate through the arts and to respond to the arts sensitizes them to the human condition.

Wittenberg teaches moral responsibility, social consciousness, vocational commitment, and constructive social change as the foundation of citizenship in the world’s human community and in each person’s particular society. The university emphasizes learning that prepares its students for the many occupations and professions necessary for society’s well-being.

Wittenberg teaches respect for and appreciation of the physical world and the place in nature for humanity, and recognizes the obligation to care for the human body and to nurture, conserve and protect natural resources.

### **The Objectives of a Liberal Education at Wittenberg**

A liberal education imparts a broad base of knowledge, and understanding, that enables the individual to discover his or her own interests and potentialities in a life that will likely extend well past the middle of the 21st century. To that end, the Wittenberg program sets broad, general requirements designed to enable the student to explore as many frontiers of knowledge as possible while becoming acquainted with the continuing traditions of society, thus preparing the student for the continuity and change that he or she will experience. In addition, the student is expected to pursue a particular field or fields in greater depth by means of the major and minor areas of concentration.

Wittenberg University’s mission finds expression in a liberal arts curriculum that seeks specifically to develop persons who:

1. Possess the skills and tools of communication appropriate to the needs of the complex civilization at the dawn of a new century. Such skills and tools include:
  - writing proficiency,
  - oral communication,
  - mathematical skills,
  - computing skills,
  - foreign languages, and
  - the symbolic language of the arts;
2. Achieve competence in thinking rigorously and rationally both with respect to subjects of general interest and concern and within the parameters of a specific discipline or profession;

3. Understand the fundamental aspects of their physical and biological environment and of their own bodies, as well as their responsibilities both to preserve their environment and to care for their bodies. Wittenberg is committed to developing the whole person in physical as well as in other ways and expects this commitment to be fulfilled not only to enhance physical fitness but also to develop a lifelong skill that improves the quality of life;
4. Comprehend the nature, structure, and function of society and of government within a local, national, regional and global perspective, as well as their social responsibility as citizens;
5. Discern the variety and complexity of their own and other cultures in a broad historical and cosmopolitan perspective;
6. Appreciate the literary and artistic fruits of culture; and,
7. Exercise moral responsibility and seek to extend ethical integrity and spiritual or religious concern in every dimension of life.

## Campus Location & Facilities

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### Campus Location

Wittenberg is located in Springfield, Ohio, the county seat of Clark County, which has 150,000 inhabitants. Columbus is 45 miles to the east, Dayton is 25 miles to the southwest, and Cincinnati is 72 miles to the southwest. The university is easily reached by Interstate 70, U.S. Highways 40 and 68, and Ohio Highways 4, 72 and 41. Students and visitors also have access to the Dayton International Airport in nearby Vandalia, as well as to Springfield's transcontinental bus line.

Springfield is both a "living laboratory" and a "college town." Students have access to a wide range of real learning opportunities that include the advantages, challenges and realities of small-city life. Wittenberg's campus is located in a residential setting, yet the downtown area, shops, restaurants and parks are all within walking distance. Public transportation is available to the mall, to the airport, and to other major cities.

### Academic Advantages of Wittenberg's Location

- ❑ Students can gain internship experience with local businesses, law firms, service organizations, and local governments.
- ❑ A hospital, where students interested in the health field or in public relations can opt for an internship, is just a few blocks from campus.
- ❑ Students volunteer in organizations ranging from the Springfield Museum of Art, the Head Start program and Habitat for Humanity, to the YMCA, Clark County Historical Society and the Public Library.
- ❑ Education majors can student teach in private/public, urban, suburban, and rural schools.
- ❑ Parks and a reservoir are living laboratories for research and field experience in environmental studies or the sciences.

### Social Advantages of Wittenberg's Location

- ❑ Springfield offers a wide variety of places to go for shopping, dining and recreation.
- ❑ Whether you like to listen to an orchestra or watch a ballet troupe pirouette across the stage, you will find cultural activities such as the Springfield Symphony, the Great Entertainment Series and the Summer Arts Festival.
- ❑ Students can hop on the interstate for easy access to the metropolitan areas of Dayton (25 miles), Columbus (45 miles), and Cincinnati (72 miles).
- ❑ Nature enthusiasts can hike in Springfield's parks or in nearby Clifton Gorge or Glen Helen. The city and state park systems also give students the great outdoors to camp, canoe, swim, sail, windsurf, cycle and play golf.

### Campus Facilities

Wittenberg's campus is located on 70 acres of wooded and rolling hills. It consists of 26 major buildings, including nine academic buildings; a modern, automated library; an outstanding Health, Physical Education, and Recreation Center; and seven residence halls. Myers Hall, constructed between 1846 and 1851 and located in the center of campus, is Wittenberg's oldest building and one of its most popular student residences. It is listed in the National Register of Historic Places and, in 1994, in honor of Wittenberg's sesquicentennial, was commemorated on a postcard issued by the United States Postal Service.

The Barbara Deer Kuss Science Center provides modern and accessible laboratory and computing facilities for study in biology, chemistry, biochemistry and molecular biology, computer science, environmental studies, geology, physics and mathematics. Almost all classrooms in the Kuss Science Center have Internet access and are equipped with multimedia projection systems. In addition to standard laboratory equipment, the building is equipped with both transmission and scanning electron microscopes with Energy Dispersive X-Ray Analyzer, a genetic analysis system, a physiograph, a 400,000-volt particle accelerator, narrow bandwidth tunable diode lasers, an ultrahigh vacuum system, gas chromatograph / mass spectrometer, vapor phase and liquid chromatographs, a High Performance / Fast Protein Liquid Chromatography System, five Fourier transform infrared spectrophotometers, an electrochemistry workstation, X-ray diffraction equipment, a pulsed dye laser system and fast flow reactor, radiographic equipment, and nuclear magnetic resonance, atomic absorption, fluorescence, and uv-vis diode-array spectrometers. The building also contains microcomputer laboratory/classrooms serving biology, physics, mathematics, computer science, geology and chemistry. A state-of-the-art computer lab and classroom, including a large-format scanner, printer, and digitizer, supports Geographic Information System (GIS) instruction in biology, geography, and geology, and its applications in other disciplines across campus. The Geology Learning Center, cooperatively designed and built by faculty and students, contains exhibits about regional fossils, rocks and minerals. Weaver Observatory, with its newly refurbished 10-inch refractor telescope with digitally controlled drive system and solid state photometer, is adjacent to the Kuss Science Center.

The new 64-bit WARP (Wittenberg Advanced Research Processors) cluster is located in the Barbara Deer Kuss Science Center. This parallel processing cluster is used by faculty members and advanced students to solve computational science problems. Software includes C/C++ and Fortran compilers along with mathematical and statistical libraries. WARP's front end consists of four hard-wired Linux workstations; the computer nodes consist of 12 dual processor AMD Opteron nodes and 1 quad processor node (28 computer processors in all). Each utilizes 1.6 GHz processors. The dual processor nodes have 2 GB of RAM and the quad processor has 8 GB of RAM. Each node also has access to 64 GB of local disk space. The front-end node and computer nodes have a Gigabit Ethernet interface and an Infiniband system area network interface.

The department of education is located in Blair Hall, the original laboratory experimental school on Wittenberg's campus used to prepare teachers through classroom practice. This historical remnant of Wittenberg's early curriculum has been renovated to house the current faculty of education as well as six classrooms, a 30-seat Macintosh computer lab, a student theatre

production auditorium with seating for more than 90, and a student-faculty lounge for informal or seminar presentations, social events and group project workspace.

The department of music is located in Krieg Hall, a facility designed with ample space for teaching, practice, study and performance. Available are five pipe organs, in addition to the large organ in Weaver Chapel, and 55 pianos. An electronic piano laboratory has become a popular means of learning fundamentals of piano technique and theory. A computer laboratory, with a full range of computers, synthesizers and software, is used not only for composition but also for courses in orchestration, counterpoint and ear training. A full collection of early instruments includes two harpsichords, and various wind and string instruments. There are many modern instruments available to students participating in the music programs. A library of musical scores, books and periodicals, and a computer-assisted reference resource center are located in Thomas Library, along with audiovisual facilities, which include more than 15,000 audio recordings. The facilities and programs of the department of music meet the expectations for fully accredited membership in the National Association of Schools of Music, which it has consistently maintained for more than seventy years.

Koch Hall, renovated for the Art Department in 1980, is a 36-room building containing studios for the major areas of the visual arts, a computer imaging laboratory, art history lecture rooms and seminar rooms. The Ann Miller Gallery, which hosts rotating exhibits of professional and student art, is also located in Koch Hall.

The Chakeres Memorial Theatre complex houses a 200-seat black box theatre. The facility accommodates productions in proscenium, thrust, or arena and utilizes a computerized lighting system. A scene shop, costume shop, makeup room, lecture room, dance studio and a computer lab for design, along with faculty offices and a student lounge, complete the complex. In addition to the Chakeres Theatre complex, students present productions in Blair Hall Theatre, a 100-seat thrust-stage facility.

The departments of communication, English, foreign languages, history, philosophy, political science and religion, Wittenberg's programs in East Asian studies, africana studies, and urban studies, the International Education Office, the Math Workshop and the Wittenberg Writing Center are located in Hollenbeck Hall, Wittenberg's state-of-the-art classroom building, which opened in January 2000. Hollenbeck's classrooms are equipped with an impressive array of computer and audiovisual technology. The building contains three computer classrooms, including a 24-hour, open-use student computer lab.

Zimmerman Hall, which houses the psychology department, contains lecture and seminar rooms, two computer laboratories for student use, a state-of-the-art animal conditioning laboratory, and a suite of experimental chambers equipped with one-way mirrors and videotaping equipment. The Behavioral Neuroscience Laboratory is located in nearby Barbara Deer Kuss Science Center.

Carnegie Hall, which houses the departments of Geography, Management and Sociology, contains lecture and seminar rooms, the Wittenberg Center for Applied Management, an open-use student computer lab, and a modern, computer lab/classroom used to support instruction in Geographic Information Systems (GIS). The Economics Department is located in Synod Hall.

## Library Facilities and Services

Library facilities and services are important resources for Wittenberg students, faculty members, and staff, and include a full range of traditional and nontraditional learning materials and information. Thomas Library, built in 1982, provides space for multimedia materials and equipment and houses more than 413,000 volumes, including over 63,000 bound periodicals, 819 current periodicals in print with another 11,573 periodicals in electronic form, 1,831 videotapes, over 2,700 compact discs, 16,000 LP record albums, 919 audiocassettes, and 383 DVDs. A branch library in the science building provides specialized resources for the natural sciences. The main library includes the Research Help Center, where students using online resources can get assistance from the Library staff. In addition, in Audio Visual Services, facilities include an instructional media and equipment distribution center, a multipurpose AV theater/classroom, a media viewing area, a multimedia production lab and an equipment repair area. Audio Visual Services further supports the teaching-learning process by providing: circulating audio visual material and equipment, media production services, consultation in the selection and use of instructional media equipment, and equipment and instructional facility maintenance services. Audio Visual Services also operates the Thomas Library computer lab. Library facilities are open more than 100 hours per week, with extended hours during exam periods.

A computerized library system facilitates use of the library collections. Terminals are located on all three floors of the library building. A network connection allows access from around campus and around the world. Besides showing the library's holdings by author, title and subject, the system provides other access points allowing users to "browse" shelves electronically and see whether an item is checked out or available. Users can call up a list of items checked out to themselves, find out what material is on reserve for a particular class, and have items held for later use. In addition, full text of much of the reserve material can be viewed online through the Electronic Reserves system.

Library use is no longer limited to locally owned items, however. From Wittenberg's library catalog one can easily access the OhioLINK Central Catalog, a consolidated listing of the library materials of more than 80 colleges and universities in the state. Wittenberg library users can make online requests for any of 40 million volumes and expect delivery in three days. Wittenberg students and faculty may also visit any OhioLINK member library and directly check out or return books; this is especially convenient during breaks and weekend visits home. If OhioLINK's holdings do not suffice, individuals may use the services of interlibrary loan, which operates through the Online Computer Library Center, an international network of more than 20 thousand libraries. Using OCLC, Wittenberg interlibrary loan staff will find the item that is needed and request it for use on this campus. Internet access to numerous individual library catalogs further links the student to the world of information, as do connections to various databases and Web resources on the Thomas Library home page.

To help the student develop the knowledge and skills needed to make use of this wealth of material, librarians and other library staff provide instruction directly related to specific classes and assist students individually in the library at the reference and circulation desks, and in the audiovisual department and microcomputer laboratory.

## **Computer Facilities**

Wittenberg's commitment to quality and technology reaches nearly every aspect of campus life. State-of-the-art equipment is in place, in process, or in the planning stage to ensure that Wittenberg students receive the best of new and traditional means of education. In support of that goal, networked classrooms with a Windows workstation, overhead projection system, DVD players, and external video ports are available for both instruction and student presentation. Video projects and presentations alike enable students in any discipline to present ideas creatively.

More than 1,500 networked Windows workstations and servers support instructional needs across campus. This network extends to all academic buildings with numerous computer lab locations and the residence halls. Standard software including Microsoft Office Professional Suite, programming, data analysis, geographic information systems, and specialized programs for individual classes are available in computer lab locations around campus.

Students tap into Wittenberg's extensive network, library, and Web services directly from any residence hall room with a personal computer, using wired and wireless access in selected common areas across campus, and available computer lab locations. The Solution Center staff provides answers to questions concerning connection to the network and other campus computing issues.

Wittenberg's Web site contains updates on current happenings, visiting artists, speakers, athletic contests, and other campus events. Students use the WittLink Portal (accessible from the Web site) to plan class schedules, register for courses, update account information, view grades, change passwords, read or send e-mail, and build a portfolio for use after graduation. Many professors offer additional online academic support via the Web. These and other services are globally accessible from any standard Internet Service Provider via username and password. Students receive an e-mail address and message storage, space on the Windows network for data file storage, and an area to publish personal web pages.

## **Athletic, Recreation, and Fitness Facilities**

A leader in NCAA Division III athletics, Wittenberg features some of the finest facilities in the nation. The \$7.1 million Health, Physical Education and Recreation Center, completed in 1982, is the centerpiece of athletic activity. The main unit can be used as three full-sized basketball courts, three volleyball courts or three tennis courts. The air-conditioned facility seats 3,000 spectators for intercollegiate basketball and volleyball events or 4,300 for concerts, convocations, and other public events. A second unit houses six racquetball/handball courts with an upper balcony for instruction and a 25-meter by 25-yard swimming pool with a separate diving well and one- and three-meter diving boards. In addition, the athletic training room, equipment room and six locker rooms are housed in this facility.

The athletic and health, fitness, and sport department's renovated offices are located in the Wittenberg fieldhouse, home for the Tigers since 1929. The new (2005) Bob Rosencrans Hall of Honor Fitness Center will continue the nationally ranked university's long-standing commitment

to health and well-being by providing top-of-the-line aerobic exercise equipment, including treadmills, bikes and rowing machines. A modern training and sports medicine facility is also located in the fitness center, and advanced strength-training and cardiovascular equipment fill the newly renovated weight room located nearby. Edwards-Maurer Field, an artificial turf playing field, and Earl Morris Track, a 400-meter world-class facility, were completed in 1993 and completely resurfaced in 2005. Edwards-Maurer Field is the home to Tiger field hockey, men's and women's lacrosse, as well as football. It is one of only a score of such artificial surfaces in NCAA Division III. The state-of-the-art David and Georgiana Albright tennis courts, featuring 12 courts, including six with lights, were completed in 1997.

Situated just two blocks from campus, Bill Edwards intramural and soccer fields, and the newly completed Betty Dillahunt softball field (1997) provide practice and playing facilities for these activities. Springfield's Carleton Davidson Stadium, which opened in 2004, is the home of Tiger baseball.

## Degrees & Requirements

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### Degrees

Wittenberg offers the following five undergraduate degrees:

- Bachelor of Arts (B.A.)
- Bachelor of Music (B.Mus.)
- Bachelor of Music Education (B.M.E.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Science (B.S.)

### Credits

All candidates for the Bachelor of Arts degree, Bachelor of Music degree, Bachelor of Music Education degree, Bachelor of Fine Arts degree or Bachelor of Science degree must complete 130 semester hours to earn their degree.

### Grade-Point Average

To qualify for graduation, a student must attain a cumulative gradepoint average of C (2.0) and at least a C (2.0) average in each major field of concentration. To be certified as having completed a minor, a student must achieve a cumulative grade-point average of C (2.0) in the courses counted toward the minor.

### Majors, Minors, and Electives

In addition to completing the general education requirements, each student must pursue at least one area of knowledge in depth. This is done by completing the requirements for a major concentration. The student has the option of completing the requirements for one or more minors. Generally, a major consists of 32 to 42 semester hours of credit, and a minor consists of 20 to 22 semester hours of credit. Each student completes the degree with electives sufficient in number to meet the minimum credit requirement of 130 semester hours.

### Fields of Study Available as Majors (most also offer minors):

- American Studies
- Art
- Biochemistry and Molecular Biology
- Biology
- Chemistry
- Communication
- Computer Science

- Earth Science
- East Asian Studies
- Economics
- Education
- English
- French
- Geography
- Geology
- German
- History
- Liberal Studies (SCE only)
- Management
- Mathematics
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Religion
- Russian Area Studies
- Sociology
- Spanish
- Theatre & Dance

**Additional Minors:**

- Chinese
- Creative Writing
- Computational Science
- Dance
- Environmental Studies
- Global Studies
- Japanese
- Journalism
- Marine Science
- Pre-Modern and Ancient World Studies
- Statistics
- Urban Studies
- Women's Studies
- Writing

**Others:**

- Accounting
- Engineering
- Marine/Aquatic Biology

- Pre-Law
- Pre-Medicine (including Pre-Dentistry, Pre-Optometry, Pre-Veterinary, and other health professions)
- Pre-Theology
- Mathematics
- Music
- Philosophy
- Physics
- Political Science

### **Interdepartmental Majors**

Students whose area of academic inquiry spans traditional disciplinary boundaries may design an interdepartmental major, composed of courses selected from several departments, all contributing to a unified theme, focus, or area of study.

Students desiring to plan an interdepartmental major must complete the following requirements as early in their college career as possible:

1. Form a three-member faculty team by October 1 of the junior year, each of whose area of specialization is relevant to the student's academic focus, to approve and oversee the implementation of the proposed interdepartmental major, ensuring that it meets the academic standards required of any Wittenberg major.\* One of the three faculty members must be (or become) the student's academic adviser. If the student is creating an interdepartmental major whose focus lies in an existing program, such as Africana or Women's Studies, the program director must also be included as one of the faculty team.
2. Once the faculty team is in place, students must prepare a formal proposal containing the following:
  - A complete list of all proposed coursework toward the completion of the major.
  - A rationale for the proposed selection of courses and the student's objectives in creating a particular interdepartmental major.
  - A plan for formal end-point assessment activities devised in conjunction with the faculty team.
  - Approval of the proposal by the faculty team.
  - Students must submit the formal proposal to the Assistant Provost for Academic Services by February 1 of the junior year.

\*Any interdepartmental major must demonstrate breadth of study; that is, coursework must "introduce students to the range of essential topics and practices within the field." It must also demonstrate depth of study and "involve each student in advanced study in at least some aspects of the field," typically "achieved by several upper-level courses." An interdepartmental major consists of at least 36 semester hours; required coursework should include no fewer than eight semester hours at the 300 level or higher, and no more than twelve semester hours at the 100 level. Additionally, the interdepartmental major must accomplish the general education goals required of any major (*Faculty Manual, Academic Policies*). The interdepartmental major must

include courses that allow the student to address the component of the writing goal within the major (i.e., two of the classes counted toward the interdepartmental major must be writing intensive - W), the Speaking goal, the Research goal, the Computing goal, and the Diversity of Human Experience goal.

### **Assessment of Student Achievement**

Wittenberg's general education program and each of its major programs are organized around distinct learning goals. Students typically accomplish these learning goals by completing a variety of general education courses and courses in their major field of study. To ensure that students are meeting these goals, as well as satisfactorily completing the requisite courses in general education and in their major, the university has established a formal assessment program. Each student is expected to complete assessment activities that monitor both individual progress and departmental or program effectiveness. In addition to university-wide assessment, each department designs and administers its own assessment activities, including "end point" assessment of its majors in the senior year.

Assessment makes it possible for the university not only to evaluate student achievement of learning goals and the effectiveness of its academic programs, but also to discover opportunities to improve teaching and learning. As such, assessment is a central feature of liberal learning at Wittenberg and an integral component of its commitment to continuous quality improvement.

No student is advanced to candidacy for a degree until he or she has completed required departmental assessment activities. Departments inform their majors in a timely manner regarding assessment procedures and requirements.

### **Residence Requirements**

At least 50 percent of the semester-hour credits for all course work and 50 percent of the semester-hour credits for course work in the major are to be completed while in residence. At least one of the last two semesters must be done in residence. Any deviation from this regulation must have approval of the Provost. Seniors applying to nonaffiliated and study-abroad programs must petition for part of the residency requirement to be waived.

Upon the approval of the Provost and the major department involved, a student who enters a graduate or professional school at the end of the junior year and works toward a post-baccalaureate, graduate, or professional degree may be granted the Bachelor of Arts degree upon completion of the advanced degree at the graduate or professional school provided that (1) the student completed 98 semester hours of credit; (2) the student completed at least 64 semester hours of credit while in residence at Wittenberg; (3) the student completed at least one of the last two semesters in residence at Wittenberg; (4) the student met the major and general education requirements stipulated in the Academic Catalog (In rare and special circumstances, certain requirements may be waived by petition.); (5) the student is in good standing and has at least a 3.000 grade-point average at Wittenberg and its equivalent in the courses taken at the graduate or professional school.

The student's major department and the Provost are responsible for judging the appropriateness of the courses upon submission in writing of course descriptions by the student with the confirming transcript from the graduate or professional school.

### **Academic Year**

The academic year begins in late August and concludes in early May. It is divided into two semesters, each of which is 16 weeks in length, including one week for final examinations. Progress toward the degree is measured in semester hours. A student should earn an average of approximately 16 semester hours each semester (32 semester hours each year) to graduate at the end of four years.

### **Summer Session**

For the student who wishes to accelerate the program, Wittenberg conducts a summer session through the School of Community Education. Most courses that meet during the day meet daily, Monday through Friday; most evening courses meet two or three times weekly. Additional information is available from the School of Community Education.

## General Education

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General Education provides the foundation of liberal learning upon which Wittenberg realizes its primary purpose, as emphasized in its mission statement, of imparting knowledge, inspiring inquiry, and encouraging independent thought. General education informs the more specialized study of the major and the minor and provides the basis for both lifelong learning and participation in Wittenberg's learning community. In addition, the Wittenberg student has the opportunity to develop, assess, and clarify spiritual beliefs and ethical values, gain an appreciation of human diversity, and define the role of the educated citizen in the world community and in the individual's particular society.

By achieving the specific goals of general education, a student acquires a basis for understanding varied domains of knowledge and experience and for appreciating the power and limitations of the ways of knowing that characterize each domain. A student develops the analytic and expressive skills necessary to engage creatively in exchanging ideas and assimilating information and gains an awareness of the interconnectedness of academic disciplines and the relation between various areas of inquiry and specialized courses of study.

The university offers a variety of courses especially designed to ensure that a student has sufficient opportunity to develop these skills and achieve these understandings. A minimum number of these courses, distributed with reference to learning goals, is required for a bachelor's degree. Courses that may be applied to the general education learning goals have been designated with an appropriate letter code in the course number. A list of approved general education courses (as of the publication date of the catalog) is printed following the appropriate general education learning goal description. This list is subject to change and a current list of these courses is available in the Registrar's Office. There are also a number of topics courses offered each semester by various departments, which have been approved to meet a general education learning goal. Students should consult the current Master Schedule of Classes published each semester by the Registrar's Office for a list of these topics courses or visit the website's open course listing.

While some courses may be designated to meet two different learning goals, students may use such courses to fulfill only ONE of these designations, NOT both. The only exceptions to this policy are writing-intensive and mathematical-reasoning courses, which may be used to meet other general education learning goals.

To complement and support this academic program, the university provides a wide range of co-curricular activities and events that address particular components of Wittenberg's mission. These include lectures, performances, religious events, counseling, athletics, and recreational activities.

The general education learning goals and requirements are divided into three groups: Foundations, Arts and Sciences, and Co-Curricular Activities.

## **Foundations**

This category contains those goals and requirements that provide an essential foundation for successful college study. They include writing, mathematics, languages, speaking, research, and computing.

### **Writing**

The student should achieve a level of competence in writing that provides the necessary foundation for subsequent college work and further learning and should also strengthen writing with continued practice.

Requirements:

1. Demonstrate competence in writing. Competence may be demonstrated in two ways: (1) by completing English 101E during the first two semesters, with a minimum grade of C- or S or by transferring in a comparable course from an accredited institution; (2) by earning a score of 4 or higher on the Advanced Placement Exam in English Language and Composition or by scoring a 740 or higher on the SAT II Writing Test.
2. Demonstrate continuing proficiency in writing: All students are required to earn a grade of "S" for their writing proficiency in seven courses designated as "writing intensive," at least two of which must be taken as part of the student's major. Failure to demonstrate such proficiency will result in no credit for writing proficiency in that course. A student may earn graduation credit for the course even if the grade for writing proficiency is NC, but the student may not graduate until an S has been earned in seven writing-intensive courses.

### **Mathematics**

The student should achieve a level of competence in mathematics that provides the necessary foundation for subsequent college learning and should also strengthen problem-solving and reasoning skills through continued use.

Requirements:

1. Demonstrate competence in mathematics. Competence may be demonstrated by completing one course (four semester hours) during the first three semesters in mathematics, statistics, or computer science that meets the foundational mathematics goal with a minimum grade of C- or S; or by earning a sufficiently high score on an examination administered on campus by the Department of Mathematics and Computer Science. Quantitative courses are designated with a "Q" in the course number.
2. Complete one additional mathematical-reasoning-intensive course. Mathematical-reasoning-intensive courses may be used to meet other general education learning goals. Mathematical-reasoning courses are designated with a "M" or "Z" in the section number throughout the Master Schedule of Classes published each semester by the Registrar's Office.

### **Foreign Language**

The student should achieve the degree of competence in a foreign language necessary to encounter another culture on its own terms and to enhance understanding of the structure of the language itself.

Requirement: Demonstrate competence in a foreign language. Competence may be demonstrated by completing a foreign language 112 course at Wittenberg and earning a minimum grade of C- or S, or by earning a sufficiently high score on an examination administered on campus by the Foreign Languages and Literatures Department. Competence in a language that is taught at Wittenberg, but which the student studied at another institution, can be demonstrated only by taking Wittenberg's on-campus competency examination. (Competency examinations are offered only twice each year; the student should contact the Foreign Languages and Literatures Department for information about scheduling.) The student who wishes to demonstrate competence in a language not taught at Wittenberg must consult with the Chair of the Foreign Languages and Literatures Department and arrange to demonstrate competence by achieving a predetermined score on a standardized examination or through another means of evaluation acceptable to the Chair.

Courses are designated with "F" in the course number.

CHIN 112F Elementary Chinese II  
FREN 112F Intermediate French  
GERM 112F Intermediate German  
GREE 112F Intermediate Classical Greek  
JAPN 112F Beginning Japanese II  
LATN 112F Intermediate Latin  
RUSS 112F Elementary Russian II  
SPAN 112F Beginning Spanish II  
SPAN 150F Intermediate Spanish

### **Speaking**

The student should be able to speak effectively within and before groups.

Requirement:

No specific course is required. The student meets this goal through some general education courses and through the major.

### **Research**

The student should be able to use the library to acquire information and to explore ideas and should understand the role of technology in the collection, analysis, and dissemination of information.

Requirement:

No specific course is required. The student meets this goal through some general education courses and through the major.

## **Computing**

The student should be able to use a computer to help perform a variety of learning activities and should understand the power and limits of computing.

Requirement:

No specific course is required. The student meets this goal through some general education courses and through the major.

## **Arts and Sciences**

This category moves beyond foundations toward an understanding of how different academic disciplines contribute to our growing body of knowledge.

Students are required to complete courses from five areas of learning that are defined by their methods or approaches: The Natural World; Social Institutions, Processes, and Behavior; Fine, Performing, and Literary Arts; Religious and Philosophical Inquiry; and Western Historical Perspectives. Most students take eight courses of four or five semester hours each to meet these requirements. In doing so, students must choose courses from eight different departments. In instances in which students take course work in more than two departments to fulfill an eight-semester-hour requirement (as is possible in the Arts), they must take courses from six other departments for the remaining six courses.

Students are required to complete one course from a sixth area of learning, Non-Western Cultures, which is defined by subject matter rather than by method or approach.

In addition, the Arts and Sciences requirements introduce students to the diversity of human experience and to the inter- and transdisciplinary nature of knowledge. These learning goals transcend the disciplinary and methodological limits of the areas and subject matters in this category.

### **The Diversity of Human Experience**

Students should gain an appreciation for and understanding of the role of human diversity in contemporary culture.

Requirement:

No specific course is required. Students meet this goal through the Arts and Sciences courses and through the majors.

### **Integrated Learning**

Students should gain an understanding of connections between differing modes of inquiry, experience learning as a shared enterprise, and see the relationship between the world of learning and their lives.

Requirement:

A Wittenberg Seminar during the first semester for all entering students.. Note: Transfer students do not take a Wittenberg Seminar, but must complete another approved Integrated Learning course. Integrated Learning courses for transfer students are designated with an “L” in the course number.

### **The Natural World**

Students should gain an understanding of the natural world through scientific inquiry and see the relations among science, technology and contemporary culture.

Requirement:

At least eight semester hours in courses that meet the Natural World goal, one of which must include laboratory experience. Non-laboratory courses are designated with a “N” in the course number. Laboratory courses are designated with a “B” in the course number.

### **Social Institutions, Processes and Behavior**

Students should achieve, through empirical and analytic methods, an understanding of human behavior, relationships and institutions.

Requirement:

Eight semester hours in courses that meet the Social Institutions, Processes and Behavior goal. Courses are designated with a “S” in the course number.

### **Fine, Performing, and Literary Arts**

Students should gain an understanding of aesthetic experience and of how the arts enrich and express the human spirit.

Requirement:

Eight semester hours in the creation, study, or performance of dance, literature, music, theatre, and/or the visual arts. Courses are designated with an “A” in the course number.

### **Religious and Philosophical Inquiry**

Students should gain an understanding of how central questions about reality, knowledge and value are pursued in religious and/or philosophical traditions.

Requirement:

Four semester hours in religion or philosophy course work that satisfy the goal. Courses are designated with an “R” in the course number.

### **Western Historical Perspectives**

Students should gain an understanding of the histories of the peoples and cultures of Europe and/or of the post-Columbian Americas.

Requirements:

Four semester hours of coursework that satisfy the goal. Courses are designated with a “H” in the course number.

### **Non-Western Cultures**

Students should gain an understanding of the diversity of non- Western cultures through a study of the history, institutions, or traditions of one or more of these cultures.

Requirement:

Four semester hours devoted to the study of a culture or cultures outside the Western tradition. Courses are designated with a “C” in the course number.

### **Co-Curricular Activities**

These goals support two components of the university’s purpose to develop “in harmony” the qualities that characterize “wholeness of person:” service to the community and care for the body. By practicing service to the community, students can discover connections between academic studies and responsible membership in a community. By participating in disciplined physical activity, students can perceive the benefits of personal wellness to lifelong learning.

### **Physical Activity**

Students should gain an appreciation of the relation between physical activity and personal well-being by participating in appropriate physical activities consistent with the student’s physical ability.

Requirement:

Only two semester hours of physical activity courses can count toward the degree (students who wish to enroll for additional physical activity courses can do so, but must register for zero credit). Courses are identified with a “P” in the course number.

### **Community Service**

Students should gain an understanding of the role, responsibility and challenge of service in community life through participation, experience and reflection.

Requirement:

Successful completion of Community Service 100 (0 semester hours): Twenty-seven hours of direct service and three hours of reflection on the service experience. The Community Service Office coordinates the community service requirement and serves as a liaison between students and community sites. Students should register for Community Service 100 and successfully complete it before their senior year.

## Special Academic Programs & Opportunities

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### Academic Advising

At Wittenberg, we believe in independence with direction. You should have the opportunity to pursue your special interests and build on what you know you enjoy. However, we also believe you must gain insight into certain areas of knowledge if you are truly to be educated.

Additionally, with more than 800 courses and hundreds of other educational opportunities available, you deserve some help with designing an educational program that fits you best. For these reasons, academic advising is important at Wittenberg.

Your first adviser probably will be one of your professors during the first term of your initial year. From the vantage point of a teacher, your adviser can quickly evaluate your academic strengths and weaknesses, observe your personal learning style and determine your interests. Armed with this knowledge and an understanding of the various requirements and options at Wittenberg, your adviser can help you carve a path that suits your interests and meets your educational and personal needs.

Of course, not all advisers and advisees are a perfect fit. Therefore, Wittenberg makes it easy to choose another adviser once you have identified a special field or individual. Most upper-level students turn to professors within their major fields for advising

### The University Honors Program

The Wittenberg Honors Program is intended to enhance the development of and provide support for a select group of outstanding students. The program brings students together in special and sometimes interdisciplinary seminars during their sophomore and junior years and affords mutual support as each student undertakes independent work culminating in a senior honors thesis or project within the major. The senior honors thesis/project allows the student the opportunity to experience the intellectual process of identifying a problem, question, topic or type of artistic expression; and then producing a significant piece of work in which he or she can take pride.

All recipients of the Smith scholarship and a select number of those awarded the Provost scholarship are automatically inducted into the program when they register for courses at the beginning of their freshman year. Other first- and second-year students are invited to apply for membership early in the spring semester every year, if they hold a 3.50 GPA. The process can vary somewhat from year to year, but always includes a substantial critical essay. Applicants are also required to provide the names of two professors familiar enough with their work to recommend them with confidence. Once admitted to the program, the student may take honors seminars, which satisfy a general education requirement.

Recent offerings include "In Search of the Holy Grail: Sex and Violence in Medieval Europe and Beyond," "Hitchcock's Cinema," "Comparative Religious Ethics," "Images of the Divine: The Sacred and the Literary Imagination," and "Scientific Progress and Public Policy." The objective is to bring small groups (each seminar is limited to 15 students) of honors students and faculty together to discuss challenging topics from different perspectives. The seminars are writing-intensive, and the participants rely heavily on class discussion, often presenting papers to the group.

To graduate with university honors, a student must maintain a 3.50 cumulative GPA, complete two honors seminars, secure permission from his or her department to undertake a senior thesis/project and satisfy any additional departmental requirements to qualify for graduation with departmental honors.

Program members frequently gather for conversation and socializing at the Matthies House, the campus home of the University Honors Program. Conveniently located on Woodlawn Avenue near Thomas Library, the Matthies House offers access to two comfortable study lounges, a kitchen with snack facilities and beverages, popular board games, a computer room with printers, network access and helpful reference books. Access is gained with use of the student's ID card, so students can (and do) use the facilities around the clock. In addition, senior honors students have access to a secluded study lounge at Thomas Library, where they may work and store books or materials. Occasionally there are off-campus trips for films, concerts, exhibitions, plays, lectures or recreation. In the spring, the program hosts colloquia at which senior members of the program present summaries of their thesis/project work. Thus, the University Honors Program provides an extracurricular and academic community for exceptional students with varied academic talents and interests who share the desire for intellectual challenge and fellowship.

### **Departmental Honors**

Departmental Honors are aimed at those students who could benefit from an in-depth exposure to the methodology of a field. Departmental Honors offer the student the opportunity to engage in a unified, scholarly project. The project includes a written component and an oral examination.

A student does not have to be a member of the Wittenberg University Honors Program to participate in Departmental Honors. In general, the student applies for Departmental Honors at the end of the junior year. The student should have a record of demonstrated high academic ability and self-discipline. In particular, the student needs a 3.50 cumulative GPA to be considered for Departmental Honors. In addition, the student should have demonstrated an advanced level of competence in the department of interest, which should include having completed half of the credits required for a major in that department. Some departments have additional requirements, which are noted later in the Academic Catalog in the descriptions of departments and programs of instruction.

After appropriate departmental evaluation of the proposal, a three-person committee, chosen by the department, evaluates the completed project and conducts the oral examination. Ordinarily, one member of the committee serves as project supervisor. The student may undertake a project without enrolling for semester hours or may enroll in a project for up to 10 semester hours,

which will be granted for a satisfactory project, whether or not Departmental Honors are awarded. Upon the recommendation of the project committee, the student is awarded Departmental Honors at graduation. See “Academic Policies and Procedures” for details.

### **Interdepartmental Honors**

Like Departmental Honors, Interdepartmental Honors are designed for students to engage in an in-depth academic project that exceeds the normal course of study in their chosen area of interest. Interdepartmental Honors follow the same guidelines as those for Departmental Honors. The student needs a 3.50 cumulative GPA to be considered for Interdepartmental Honors. In addition, the student should have demonstrated an advanced level of competence in the interdepartmental area of interest, which should include having completed half of the credits required for the interdepartmental major.

After appropriate evaluation of the proposal by the three-person committee created to supervise the interdepartmental major, this same committee evaluates the completed written project and conducts the oral examination. Typically, one member of the committee serves as project supervisor. The student may undertake a project without enrolling for credit hours or may enroll in the project for up to 10 semester hours, which will be granted for a satisfactory project, whether or not the Interdepartmental Honors are awarded. Upon the recommendation of the committee, the student is awarded Interdepartmental Honors at graduation.

### **Independent Study**

A student may take a course by independent study. An independent study is viewed as an “adventure in scholarship.” In most cases an independent study involves an in-depth look at a topic introduced in a current course or a study of a topic not covered by a current course offering. A student who wishes to take a course by independent study should consult both the professor who logically would be the study supervisor and his or her faculty adviser.

### **Pre-Medicine and Other Health Professions**

Wittenberg offers programs of study that prepare students for medical, dental, nursing, optometry and veterinary school, and has a cooperative program in occupational therapy with the School of Medicine of Washington University in St. Louis, and in nursing with the Johns Hopkins University and Case Western Reserve University.

Wittenberg is firmly committed to providing support and guidance to those preparing for post-graduate study leading to careers in any of the health professions. Consequently, all such students are advised not only by their regular academic advisers in their major departments, but also by a special Pre-Health Professions adviser. The students have organized a Pre-Health Professions Club, which is active in hosting speakers and organizing informational seminars for interested students. The university’s Career Center and the Community Workshop, as well as the Assistant Provost for Off-Campus Programs, provide internship and volunteer service opportunities specially designed for students interested in the health professions.

## **Other Pre-Professional Programs**

Wittenberg's liberal arts and sciences curriculum provides excellent preparation for professional careers in law, theology, engineering and accounting, among others. There are specially designated pre-law, preengineering and pre-theological advisers for students interested in those fields.

## **Computing**

Wittenberg's commitment to quality and technology reaches into nearly every aspect of campus life. State-of-the-art equipment is in place, in process, or in the planning stage to ensure that Wittenberg students receive the best of new and traditional means of education. In support of that goal, networked classrooms with a Windows workstation, overhead projection system, DVD and VCR and external video ports are available for both instruction and student presentation. Video projects and presentations alike enable students in any discipline to present ideas creatively.

To further enhance students' ability to connect with others in the Wittenberg community, both wired and wireless technology is available in common areas in campus buildings, including the Barbara Deer Kuss Science Center, Hollenbeck Hall, and other locations.

Many Wittenberg departments make specialized use of computing technology and several of these are described below:

### **Languages**

The multimedia foreign language lab is equipped with Windows workstations allowing students to speak, read and write in the languages taught at Wittenberg. There are programs to aid vocabulary, grammar and reading skills, and software for composition. In the lab, the computers are networked in a manner that allows the instructor to arrange students in small groups or an integrated whole. The language authoring programs allow faculty to write special exercises to help students work on specific problems. Faculty use foreign language news programs and movies to construct speaking and listening exercises that help students stay informed about current events in countries of interest to them while improving their language skills.

### **Chemistry**

The Chemistry Department uses computers beginning with introductory chemistry and continuing through advanced courses and research. The computational chemistry lab uses programs that calculate and display molecular shape, model chemical reactions, and calculate various atoms and molecular parameters. By the time they graduate, chemistry students are well versed in the many uses of computers in and out of the lab.

Wittenberg currently has over 50 computers in the Chemistry Department and all courses offered by the department incorporate computers. Students are instructed in data acquisition, data analysis, use of spreadsheets, state-of-the-art computational chemistry, and Computer Assisted Instruction in the form of several tutorial programs. All computers are networked and have access to the Internet and World Wide Web. A 30 Opteron parallel processor computing cluster

and high performance graphics workstations are available for advanced modeling and simulations of chemical systems. Technology in the lab is not limited to using computers. Instruments in the department include:

- Fourier Transform Nuclear Magnetic Resonance spectrometer. This instrument allows for the detailed analysis of the structure of organic molecules
- Ultraviolet-Visible Spectrophotometer – This diode array instrument analyzes the electronic absorption of molecules in solution. In addition to simple absorption spectra, a temperature-controlled housing allows for the examination of kinetics data.
- Gas Chromatography/Mass Spectrometry – This instrument separates complex mixtures of molecules and identifies substances by measuring the molecular weight and fragmentation analysis of each molecule. This is the kind of instrument commonly used in a wide variety of analytical labs across the country including forensic analysis by the FBI and drug-screening at the Olympics.
- Infrared Spectrometer – IR spectroscopy is widely used in both organic and inorganic chemistry to examine the vibration of atoms within molecules. This kind of analysis is a diagnostic for the internal structure of the molecule.
- High Pressure Liquid Chromatograph – HPLC is another very common method of separating complex mixtures. These instruments see heavy use in the pharmaceutical industry in the analysis of new drugs and their metabolites.
- Electrophoresis – Electrophoresis equipment is used for the separation and analysis of proteins and amino acids in biochemistry.
- Atomic Absorption Spectrometer – Atomic absorption spectroscopy is used to detect the presence and amount of metal atoms in very dilute solutions. It is widely used in labs that analyze the purity of water.
- Laser lab – A Nd:YAG laser and a Helium-Neon (HeNe) laser, used to study photochemical reactions.
- Electrochemistry workstation – Electrochemical experiments are used for the analysis of very low concentrations of species in solution and for studying electron transfer reactions relevant to corrosion, neurochemistry or fuel cells.
- Scanning Tunneling Microscope (STM) – Allows the user to image the surface of a material on the nanometer scale. Chemical reactions can be studied at the atomic level using this instrument.
- Fiber Optic Spectrometer – The department owns two fiber optic UV/Vis spectrometers. One is a low-resolution instrument used to measure the emission of atoms as well as the electronic absorption of molecules in solution. The other instrument is a high-resolution unit and is used to investigate electronic and vibrational excitation of molecules.

## Geology

Geology students use the departmental Microcomputing and Imaging Laboratory through all levels of the curriculum. Facilities include Windows workstation PCs, a scanner, a digitizing table and specialized geologic software. The creation of maps and presentation graphics, the simulation of geological processes, visualization of crystal shapes and 3-D atomic structures of minerals, information retrieval, data analysis and writing programs are available to students. In

analytical laboratories, geology majors use computers to control instruments (X-ray diffractometer, scanning electron microscope, and EDS chemical analyzer) and analyze data.

The newest addition to the Geology area is The National Science Foundation - Geographic Information Systems (NSF-GIS) laboratory. This resource enables faculty and students in the natural and social sciences and education to address the dual role of geographic information systems (GIS) - learning *about* GIS and learning *with* GIS. A GIS is a combination of hardware, software, and databases that allow for spatial analysis of the data. Recent advances in GIS technology, specifically the menu-driven processes associated with data input, management, manipulation, analysis and output, have created an ideal environment to improve instruction of GIS theory and methodology within geography while at the same time facilitating its use and application in appropriate disciplines and interdisciplinary programs in the natural and social sciences.

### **Mathematics and Computer Science**

Faculty members in the Department of Mathematics and Computer Science make heavy use of computing technology beginning with introductory courses and continuing through upper level courses. Many computer science classes meet in computer labs where hands-on computer usage is incorporated into the classroom activities. Likewise, mathematics courses make use of graphing calculators in class; some upper level courses go on to incorporate the use of algebraic software systems like Mathematica®. Courses in probability and statistics are taught in a computer classroom/lab to take advantage of specialized software for stochastic modeling and data analysis. For advanced computational projects, students have access to Wittenberg's Advanced Research Processor (WARP) cluster or can access supercomputers at off-site locations.

### **Physics**

Physics students at all levels use computers and specialized software to gather and analyze data and to model and visualize physical processes. The department has several laboratories with a wide variety of computer-controlled instrumentation, including digital video cameras and video capture cards, as well as a high-speed video camera (up to 10,000 frames per second). The instrumentation in these labs is used for student projects and research as well as for teaching physics. Other major facilities and equipment that are used for student/faculty research and teaching at Wittenberg include:

- A laboratory for research into electromagnetic wave propagation and scattering. High-speed data acquisition is performed using a National Instruments PXI development system with real-time embedded controller and dual-channel 100-Msample/sec analog to digital converter. A 16-bit 40-MS/sec arbitrary function generator allows generation of novel waveforms for applications such as radio frequency virtual-instrument development and radar investigations. Real-time and off-line data processing is conducted using both LabView and MATLAB.
- A laboratory for investigation of phenomena at the interface between nuclear and atomic physics. Work in this lab is carried out with a variety of equipment including diode lasers and optics, high vacuum equipment, and particle and optical detectors. Modeling and analysis make use of Wittenberg's 30-node parallel processing cluster.

- A scanning electron microscope with x-ray analysis capability, for imaging and characterizing the elemental composition of small objects.
- A 400,000 Volt Cockcroft-Walton positive ion accelerator, a basic tool for studies in nuclear and atomic physics and materials studies.
- Elgar Weaver Observatory, home of a newly refurbished 10-inch refracting telescope that is equipped with a CCD camera and spectrometer for obtaining images and spectra of astronomical objectives.
- In addition, there are several other laboratories for studying an extensive range of physical phenomena. These include an optics laboratory equipped with a Michelson interferometer, grating monochromator, a 3-m optical spectrometer, lasers, and auxiliary equipment, and an electronics laboratory equipped with digital oscilloscopes and function generators. Software for electronic circuit analysis and circuit board design is available.

### **Education**

The Department of Education provides all elementary and secondary education students with experience in the instructional applications of computers. In the department's Macintosh laboratory, elementary education students learn to program and to use software designed specifically for elementary age school children. More importantly, the instructors maintain a commitment to technological competence, valuing the wide variety of technologies that aid learning. Wittenberg wants teachers to emerge from our program with proficiencies in using both the older and the newer tools they will find in their classrooms. Wittenberg is also committed to teaching our students about the psychological, social, political and ideological impact of these tools on education – so that they understand how the tools used for learning help determine not only how much is learned, but what is valued and how one thinks.

### **Geography**

Students of geography learn to read, make, and interpret maps. They learn not only where places are, but how maps construct particular meanings about places. While Cartography is as old as geography itself, modern geographers have developed new computer-age tools to assist analysis. Along with computer cartography, Geographic Information Systems (GIS) is sophisticated computer analysis of spatial data. The GIS "revolution" has spread beyond Geography so that almost all fields of knowledge utilize GIS! GIS has many practical applications, including locating optimal business sites given multiple spatial criteria, land use planning, assessing environmental change over time, and predicting weather patterns.

A GIS lab is available in Carnegie for small class projects. Students taking GIS classes in Geography use the National Science Foundation - Geographic Information Systems (NSF-GIS) laboratory in the Barbara Deer Kuss Science Center. Facilities in the Kuss Science Center include Windows workstation PCs, a scanner, a digitizing table, and ARC GIS and other GIS software.

### **Psychology**

Psychology students use computer labs for test item analysis, simulations, modeling, automated data processing of electrophysiological measures, and editing, analyzing and evaluating psychological data. A sophisticated, modern research computer dedicated entirely to psychological research by faculty and students controls modular equipment for the study of

animal and human behavior. The physiological laboratory holds a large array of sophisticated equipment, including stimulation and recording devices for the study of electrophysiological responses and eating behavior. A third laboratory is devoted to the study of elementary learning processes in animals.

### **Music**

Composer and Wittenberg alumnus John M. Chowning (BM '59) provided generous assistance for the Music Department's computer lab. The lab primarily supports students of composition in their studio work and music production but is used for teaching music technology to other students as well.

Six workstations are equipped with Macintosh computers, MIDI keyboards, headphones, and software for notation, sequencing, word processing, ear training, and music theory. The lab has an array of hardware synthesizers by Kurzweil, Yamaha, and Roland, as well as a MIDI wind controller, a theremin, and tools for composing for video. Students can use programs such as Finale for music notation, Digital Performer for sequencing and arranging, plus such open-source software such as Csound, so composers can study software synthesis for music composition and sound design and may produce their works on CD or DVD.

Recent additions to the technology lab include an 11 x 17 laser printer, a well-equipped Power Mac G5 computer with software sampling, orchestral instrument sound libraries for high-quality arranging and music production, and an audio interface for recording.

The Music Department's 16-unit Kurzweil keyboard lab was made possible through a gift from the Rev. Harold Figley in memory of his wife, Evelyn (BM, '52). The student unit is the Kurzweil RG-200, which features an 88-note keyboard with 10 preset sounds, a weighted key with seven levels of user-selectable touch, a 6,000-note sequencer with four non-volatile song memory locations, and a built-in variable-speed metronome. The instructor's unit is the Kurzweil Mark 10, an 88-key digital piano with 86 sounds, which features auto accompaniment, an 8-track sequencer, 32 preset musical styles, and a 130 watt/4-channel sound system. The Mark 10 also contains a 3.5" disk drive, so that scores created with software in the Music and Technology lab can be performed in the Keyboard lab.

The Figley Computer Lab consists of three Power Macintosh computers. Two of the workstations have a keyboard/synthesizer attached to them and are set up for ear-training with the MacGamut® and *Musica Practica* ear-training software. The lab has a total of two synthesizers: one Korg X5 and one Yamaha PSR-320.

Two music studios are equipped with the *SmartMusic* accompaniment system that allows students to practice and to play with a synthesized accompaniment. These stations have on-line access to hundreds of accompaniments.

### **LEAD/@witt@home ( School of Community Education)**

The School of Community Education offers courses through the @witt/@home course format, combining limited campus meetings and interactive web-supported activities. Courses structured in this mode bring to working adults the best of both the classroom encounter and the convenience of individualized on-line work.

Even if students live some distance from Springfield and have the hyper-busy and "irregular" schedule that typifies the contemporary working man or woman, *@witt/@home* makes the Wittenberg experience a very real choice - without the sacrifice in learning quality that can occur in on-line programs. The *@witt/@home* courses have the same enrollment limits as our traditional campus courses. Classes typically meet four to eight times over a semester, with variances reflecting credit value, and incorporate guided readings and asynchronous interactive activities with instructors and classmates at home or at work.

### **Thomas Library**

The library makes extensive use of network technology, especially the World Wide Web. The library's online catalog, EZRA, allows users to search for books, journals, media and other materials held in the library; it also links to the OhioLINK Catalog, which provides similar information for library resources at college and university libraries throughout Ohio. Students, faculty and staff can have OhioLINK materials sent to Wittenberg in just a few days.

In addition to the online catalogs, the library web site provides users access to online journal indexes as well as a great deal of full text content. Other library functions are also online. Most reserve readings are now scanned and available through an Electronic Reserve system that allows any number of classmates to do assigned reading simultaneously, at any hour and from any computer with Internet access.

In addition to the two computer labs available in the library, campus users can also connect their own computers to the Wittenberg network via WittConnect in library study areas.

### **Urban Studies**

The Urban Studies program is enriched by a number of opportunities. Students can study the City of Moscow with a geographer and political scientist before and during a visit. They can join a group of students and a political scientist and/or economist in a U.S. city during the summer for a mixture of courses and internships in that city's government. Some turn an internship in Springfield city government into a long-term placement and even a career. Others do study visits to cities in Europe that are Sister Cities of Springfield. GIS (Geographic Information Systems) students usually complete projects of direct application to the City of Springfield. In addition, students majoring in geography may select an urban planning track within the geography program.

### **Africana Studies**

Africana Studies is the study, research, interpretation, and dissemination of knowledge concerning African American, African, and Caribbean affairs and culture. Because Africana Studies embraces a wide spectrum of experiences and issues, the program is multi- and interdisciplinary in its approach. Students can choose courses among many disciplines: English, history, sociology, music, geography, religion, political science, Spanish, and theatre and dance. Each year the program offers opportunities and information about study trips to Africa, the Caribbean, and Europe.

## **Environmental Studies**

Students enrolled at Wittenberg have several options to explore and to develop their interests in the environment. An environmental studies minor enables students to complement a traditional major with an environmental focus. Through individualized course selection, the minor allows students the breadth to appreciate the interdisciplinary nature of environmental issues or problems. An environmental focus is also available to students majoring in biology, geography and geology. In addition, Wittenberg participates in a cooperative program with the Duke University School of the Environment, through which students may attend Wittenberg for three years and then complete a master's degree at Duke.

## **International Studies**

Along with the wide array of courses on non-western cultures in Wittenberg's General Education program, several academic departments offer courses or formal programs of study for students interested in deeper knowledge of international issues and western and non-western cultures. Wittenberg offers a formal, interdepartmental program in Global Studies and provides instruction in six modern foreign languages (Chinese, French, German, Japanese, Russian and Spanish), as well as in Latin and Greek. Ample opportunity is provided to study foreign literatures and cultures in translation and, for students interested in western Europe, culture emphasis minors are available in French and German.

Wittenberg also offers interdepartmental majors in both East Asian Studies and Russian Area Studies. The East Asian Studies Journal, published by students, is the only undergraduate publication in the country devoted to this region of the world, and it attracts submissions from colleges across the United States. The East Asian Studies Journal has been published annually since 1975.

The Russian Area Studies Program, through its class on Local Politics and Urban Planning: Moscow, offers opportunities for students to pursue original field research in Russia. Several students have presented original research papers from this experience at professional meetings and have won prizes at the meetings for their work.

## **Engineering**

Wittenberg offers its students the opportunity to participate in binary engineering programs (commonly referred to as "3-2" programs) with three schools of engineering. Although Wittenberg does not confer a bachelor's degree in engineering, the binary programs make it possible for a Wittenberg student to earn both a Bachelor of Arts degree from Wittenberg and a bachelor's degree in engineering from one of the participating schools.

A student participating in one of the college's binary programs spends three years at Wittenberg and, typically, two years at an engineering school. The student completes Wittenberg's general education requirements and the requirements for a major (usually in physics) during the first three years and then completes the requirements for the engineering program at the engineering school.

Schools currently participating in the “3-2” program include the Fu Foundation School of Engineering of Columbia University, The Case Institute of Technology of Case Western Reserve University, and the School of Engineering and Applied Sciences at Washington University in St. Louis, Mo.

### **Graduating with More than One Major**

A student completing more than one major will receive one degree with all majors listed in the official transcript. In the case of a student who completes more than one major in two separate degree programs (e.g. the Bachelor of Arts and Bachelor of Science), all majors will be listed in the transcript, but the student will choose the degree to be awarded. (The choice of the degree cannot be changed after Commencement.)

If a student has completed the requirements of graduating with two degrees from Wittenberg University, the student will receive two degrees with all majors listed in the official transcript.

### **Graduating with More than One Degree Earned at Wittenberg University**

A student successfully completing a major in the Bachelor of Science degree or the Bachelor of Music degree or the Bachelor of Fine Arts degree or the Bachelor of Music Education degree programs may not receive a Bachelor of Arts degree in the same major.

While completing all requirements for a baccalaureate degree at Wittenberg, a student may qualify for a second baccalaureate degree by:

- ❑ Successfully meeting all requirements for the first degree, including the completion of the minimum graduation requirement of 130 semester hours, and
- ❑ Successfully meeting all requirements for the second degree, including completion of an additional 32 semester hours (typically in the curriculum of the second degree) with a minimum scholarship quotient of 2.000 for all credits earned toward the second degree.
- ❑ Completion of the general education program for the first degree can be utilized in meeting the general education requirements of the second degree.
- ❑ Upon successfully meeting the requirements for both degrees, a student may be awarded both diplomas at the same commencement.

A student who already has a baccalaureate degree from Wittenberg University or from another accredited college or university may apply to Wittenberg for the purpose of obtaining a second baccalaureate degree. The requirements for obtaining such a degree shall include:

- ❑ The successful completion of a minimum of an additional 32 semester hours at Wittenberg.
- ❑ Successfully meeting all general education requirements for the new degree in effect at the time of matriculation for that degree.
- ❑ Completing all requirements for a new major.
- ❑ Achieving a minimum grade point average of 2.000 for all work attempted toward a new degree.

Note: These guidelines do not address the dual degree programs Wittenberg University offers in cooperation with other institutions, e.g., Engineering and Occupational Therapy.

### **Graduating with a Self-designed Major**

A student may graduate with a self-designed major (known as “interdepartmental major”) only in the Bachelor of Arts degree program. Wittenberg’s intensive degree programs (i.e., B.S., B.M., B.F.A., and B.M.E.) are chartered by the Board of Regents according to the curricular plan of each.

## Off-Campus Academic Opportunities

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Recognizing that off-campus academic experiences are ways in which the students can extend and enrich their liberal arts education, Wittenberg offers a variety of special off-campus opportunities. Participation in one or more of these programs leads students to an understanding of what is meant by the phrase “the power of experience.”

### Community Service

Believing students should gain an understanding of the role, responsibility, and challenge of service in community life, Wittenberg requires completion of thirty hours of community service for graduation.

In one semester before their senior year, students must register and complete all service requirements for Community Service 100, a non-credit class. Community Service 100 provides students with the opportunity to serve others, to connect the Wittenberg and Springfield communities, and to reflect on the service experience.

The Community Service Office coordinates the service requirement at Wittenberg and serves as a liaison between the students and community sites.

### Internships

Whether a student chooses a full-time internship during a period spent away from campus or a part-time internship near campus during the academic year, the experience provides an opportunity to combine theory learned in the classroom with real-world practice. It can be especially beneficial in the current job market, in which many organizations seek new college graduates who have experience or who can show evidence of superior internship performance.

Academic departments offer credit-bearing internships that are supervised by a faculty member in the department. The faculty member can help a student devise a plan for an internship experience that not only builds upon the student’s academic preparation but also relates to the student’s skill development and career interests. Resources in the Career Center Library include directories of internship opportunities in the United States and abroad, and copies of internship agreement forms submitted by former students. There is also a Web site on internships.

Local internship sites for Wittenberg students have included WHIO-TV in Dayton, Clark County Soil and Water Conservation, Mercy Medical Center, the Springfield City Manager’s Office, the Public Defender’s Office, the Springfield Museum of Art and American Express Financial Advisers.

Off-campus internship opportunities have included research at the National Institutes of Health in Bethesda, Md, participation in the Wittenberg University Washington Semester program, the

Student Conservation Association, and in a program that is unique among undergraduate, liberal arts and sciences colleges, urban studies summer field placements with a city government. See “Academic Policies and Procedures” for details.

### **Wittenberg Center for Applied Management (WittCAM)**

WittCAM is a student-managed center that offers faculty-directed programs designed to develop and enhance student analytical and project management skills. It sponsors speakers and seminars, and coordinates the Department of Management’s portfolio program and Web site. WittCAM coordinates management internships, as well as opportunities for students to serve as management consultants while earning graduation credit in center-sponsored consulting programs. Opportunities are available in small and large businesses , not-for-profit organizations, and social service and government agencies.

WittCAM’s consulting programs are open to qualified students from all departments and programs, and are offered during the regular academic year. These consulting programs include:

- Project Management Assistance (planning, development, execution and evaluation of specific projects)
- the Creative Advertising Partnership (development of advertising campaigns for organizations)
- the Small Business Institute™ (evaluations of existing and proposed small business operations)

Management Internships offer student placement within local and regional firms as well as organizations located a significant distance from campus. Internships for management academic credit are available during the regular academic year and summer to qualified students who have completed the prerequisite 300-level management course(s).

Students interested in participating in any of the above programs can obtain more information, or apply, at the WittCAM office, 312 Carnegie Hall. Phone: (937) 327-7910; FAX (937) 327-6143; E-mail: [wittcam@wittenberg.edu](mailto:wittcam@wittenberg.edu), or at the WittCAM webpage.

### **Washington Semester Program**

Wittenberg’s Washington Semester Program is offered in collaboration with the Lutheran College Washington Semester (LCWS) and includes both classes and internships. Students have interned in the White House and various Executive Departments, Congressional offices and lobbying firms, News organizations, the Smithsonian, and various interest groups and DC social service offices. Through this, students gain real-life work experience dealing with issues that are local, national, and international in scope. Many of these internships have led to jobs for Wittenberg students after graduation.

During the fall and spring programs, students earn a full semester of academic credit through their internship, two classes, and completing the Dean’s requirements (a summer residency program is available that offers only the internship). The internship is four full days a week.

Courses are taught in the evenings in the complex where students live. Special events and field trips (part of the Dean's requirements) are typically on Wednesdays. Housing is provided in 13 fully-furnished penthouse condominiums (owned and operated by the Consortium) in Rosslyn, Virginia, directly across the Potomac River from Georgetown, in the District of Columbia. Access to internships and other activities is convenient; the metro is only a five minute walk from the condominiums.

The Washington Semester Program is a residency program, which means that students are considered to be enrolled at Wittenberg while in Washington. This means that students received letter grades in their courses that count toward their GPA. Tuition is paid directly to Wittenberg and all financial aid applies. Room, however, is paid to LCWS and students must provide their own food.

### **Wittenberg Summer Programs**

Wittenberg regularly offers summer opportunities in both domestic and foreign locations, directed by our own faculty members. In recent years, these have included the following:

Bahamas Field Program:

A comparative study of biological communities, San Salvador Island (Bahamas).

Paris:

History and literature

Lesotho:

Africana Studies and Habitat for Humanity

Mexico and Guatemala:

Spanish language and regional culture

Moscow Field Research Program:

Local politics and urban planning issues

Germany:

German language and culture

England:

History and literature

New Hampshire:

Municipal government internship

Wisconsin / Minnesota Northern Boundary Waters:

Field biology and geology

### **Affiliated Programs**

Wittenberg is affiliated with programs operated by American consortia such as IES (Institute for the International Education of Students), and CIEE (Council on International Education Exchange). The university directly enrolls students in these programs. Other programs, including new ones in Latin America and Africa, are available to Wittenberg students. The following list is representative.

Perth, Australia:

A CIEE semester or year program at Murdoch University; students enroll in one course on Australia and are also enrolled directly at Murdoch.

Vienna, Austria:

An IES semester or year program in European culture and society, the humanities, social sciences and business; instruction in English but German studied; internships available.

China:

A CIEE program in the People's Republic of China for a semester or a year, depending on language competence.

Copenhagen, Denmark:

A semester or a year program in international business, art, architecture and general studies, also pre-health and education; language competence may be acquired in the course of study.

Beijing, China:

An IES/IAS program emphasizing language and culture; homestays available.

London, England:

An IES semester or year program stressing government, literature, or business.

Brittany, France:

A CIEE program for a year or a semester at the University of Haute Bretagne in Rennes. This program emphasizes French culture and language, and can include work in education.

Nantes, France:

An IES semester or year program with emphasis on French and the humanities; instruction in French.

Paris, France:

An IES semester or year program with emphasis on French language and culture but with special programs including business and work-study internships; instruction in French.

Freiburg and Berlin, Germany:

An IES semester or year program in connection with the University of Freiburg or the Humboldt University in Berlin; instruction is in German.

Moscow and St. Petersburg, Russia:

American Council of Teachers of Russian and CIEE programs for a semester or a year; they emphasize Russian language, culture and area studies. Instruction in Russian.

Madrid and Salamanca, Spain:

An IES semester or year program stressing Spanish language and literature; instruction in Spanish.

Barcelona, Spain:

An IES semester or year program stressing business communications. No prior Spanish is required.

Seville, Spain:

A CIEE semester or year program in Spanish and the humanities at the University of Seville; instruction in Spanish.

Stockholm, Sweden:

A one-semester program in conjunction with the University of Stockholm stressing political science and sociology; instruction in English, but Swedish is studied.

### **Exchange Programs**

Wittenberg participates in study programs in which students here and abroad exchange places while enrolled in their home institutions.

### **Direct Exchanges**

While participating in a direct exchange, a student pays Wittenberg tuition and fees, including room and board, and also retains all scholarships. Direct exchanges require a high level of independence and superior linguistic skills. If selected by the university and linguistically qualified, the student may enroll directly in:

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

Through Wittenberg's membership in ISEP, students can enroll directly in more than 200 institutions in 20 different countries around the world. Direct enrollment requires a high level of independence and superior linguistic skills.

Liverpool, England:

A variety of academic areas of study for one term in Hope College, associated with the University of Liverpool.

Osaka, Japan:

A semester or year program in East Asian language and culture at Kansai Gaidai; homestays available.

Tokyo, Japan:

A year's program in Asian Studies including language and area studies is offered at Sophia University.

### **Internships Abroad**

Students who plan well in advance may arrange internships abroad. Wittenberg students have worked in a radio station in Moscow, urban development in Guatemala, citizen action efforts in Berlin, special education in Sweden, banking in Hong Kong, international trade in Taiwan, and in the British Parliament.

Wittenberg is also one of only eleven schools in the United States to partner with the Japan External Trade Organization (JETRO), which promotes internship opportunities for American students in Japan.

### **Other Study Abroad**

In addition to programs which the university operates or with which it affiliates, other programs administered by U.S. colleges and universities are available to Wittenberg students depending on approval by the Faculty Committee on International Education.

### **Office of International Education**

Wittenberg maintains a full-time office of International Education to assist students with study and travel plans, and to counsel them with integrating international dimensions with educational life goals. A minimum 2.5 grade-point average is required for study abroad.

## Departments & Programs of Instruction

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This section contains a description of the curriculum of each departmental and interdepartmental program, along with degree requirements for majors and minors, elective courses, and suggestions about courses and programs in related fields. Each course description includes the credit value of the course; a list of the course's prerequisites, if any; notification if the course is writing intensive, and information on the frequency with which the course is offered.

The courses of instruction, course descriptions, and major and minor programs are subject to change, and the university reserves the right to withdraw or modify them at any time without notice. Students should consult the master schedule, published by the Registrar's Office each semester, for current information on course offerings and curricula. Information on changes in department or program curricula or requirements is available at the appropriate department or program office.

### Departments & Course Listings

Africana Studies

American Studies

Art

Biochemistry/Molecular Biology

Biology

Chemistry

Communication

Community Service

Computational Science

Computer Science

East Asian Studies

Economics

Education

Engineering

English

Environmental Studies

Geography

Geology

Global Studies

Health, Fitness & Sport

History

Languages

Chinese

French

German

Greek

Japanese

Latin

Spanish

Russian

Management

Marine Science

Mathematics

Music

Philosophy

Physics

Political Science

Pre-Health

Pre-Law

Pre-Modern and Ancient World Studies

Psychology

Religion

Russian Area Studies

Service Learning

Sociology

Theatre & Dance

Urban Studies

Wittenberg Seminars

Women's Studies

### **Course Numbering**

Courses that may be applied to general education learning goals have been designated with an appropriate letter code in the course number. Courses numbered from 001 to 009 are preparatory to college work and carry no graduation credit. Course numbers from 010 to 099 are reserved for activity courses in the Department of Health, Fitness and Sport, and the Department of Theatre and Dance.

Courses at the 100-level are introductory courses or sequences of courses, with no departmental prerequisites, that introduce basic skills, techniques, concepts, or questions of the field.

Courses numbered from 200 to 299 continue the introduction to the field beyond the 100-level or introduce the field by focusing on a major area in the field. Such courses may not have departmental prerequisites but are designed for students with some college experience.

Courses at the 300-level are advanced courses that depend on previously learned knowledge and skills in the discipline or a maturity of skills in critical thinking. In such courses, students are asked increasingly to employ the tools of the discipline in response to basic questions. Ordinarily these courses have prerequisites or require junior standing.

Courses at the 400-level require students to do more independent work, often involving the creation or synthesis of knowledge using previously learned skills, and these courses usually are designed for the

## Africana Studies

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Professors Warren Copeland (Religion), Keith Doubt (Sociology);  
Associate Professors Lori Askeland (English), Lillian C. Franklin (Spanish), Scott Rosenberg (History), Carmiele Wilkerson, Director (English)

### Requirements for Minor

A minimum of 22 semester hours is required for the minor, 10 of which must be at the 200 or higher course level, with at least 4 semester hours in the social sciences, 4 semester hours in history, and 4 semester hours in literature. Courses should be chosen in consultation with the minor adviser and the Program Advisory Committee.

### Course Listings

#### **201C/H. Introduction to Africana Studies. 4 semester hours.**

Introduction to the discipline of Africana Studies. Focus on the history (political, economic, psychological, artistic, and cultural) of people of African descent. Every year. No prerequisite.

#### **270. Topics in Africana Studies 2-4 semester hours.**

Topical approach to specific themes in African, African-American, and African Diasporic studies. Some sections may be writing intensive. May be repeated for credit.

#### **492. Africana Studies Senior Project 2 semester hours.**

An integrated learning opportunity geared toward assessing student understanding of theories, methods and concepts central to the discipline. Every year. Prerequisite: permission of program director

### English

- ❑ **180A. Slave Narrative. 4 semester hours.**
- ❑ **190A/C. Afro-Caribbean Studies. 4 semester hours.**
- ❑ **313. Harlem Renaissance. 4 semester hours.**
- ❑ **313. Studies in African American Literature (18th/19th century). 4 semester hours.**
- ❑ **313. African American Literature (20th century). 4 semester hours.**

- **315. Novels of the African Diaspora. 4 semester hours.**
- **330. Major Authors (when African-American)**

### **Geography**

- **210C. Geography of Africa. 2 semester hours.**

### **History**

- **170C. Topics in African History. 4 semester hours.**
- **171C/H. African Societies to 1500. 4 semester hours.**
- **172C. African Societies Since 1500. 4 semester hours.**
- **230H. African American History. 4 semester hours.**
- **270. Topics in African History. 4 semester hours.**
- **370. Topics in African History 4 semester hours.**

### **Music**

- **113A. Jazz Styles. 4 semester hours.**

### **Political Science**

- **234S. Black Politics. 4 semester hours.**

### **Religion**

- **176H. Racism and Social Ethics. 4 semester hours.**
- **375R. Advanced Social Ethics: Racism. 4 semester hours.**

### **Sociology**

- **277C/R. Islam and Islamic Societies. 4 semester hours.**
- **301S. African American Social Thought**

### **Spanish**

- **130A. Caribbean Literature. 4 semester hours.**

## **Theatre & Dance**

- **112A. Dance in Popular Culture. 4 semester hours.**
- **210C. Dance Ethnology. 4 semester hours.**

## American Studies

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Professor Mary Ellen Jones (English), Director

The American Studies Program is an interdisciplinary program designed to offer the student an opportunity to study American culture in its broadest sense from a variety of perspectives. Each American Studies major is required to develop an individual program that provides breadth of knowledge about a variety of American cultural characteristics, an understanding of American history, and depth of knowledge about a particular aspect of American culture. Breadth of knowledge is acquired through course requirements that introduce the discipline of American Studies, explore American history, and fit five categories that describe particular aspects of American culture in greater detail. The major is able to deepen the knowledge of a particular aspect of American culture by taking either a research course or a readings course in American Studies. A list of topics (by no means exhaustive) that might be explored in the context of either a research or readings course includes African American culture, Native-American culture, gender issues in American culture, American culture in a global context, the fine and performing arts in the context of American culture, rural and urban studies in America, and the nature of American material and technological culture.

Courses in American studies are drawn from various departments and fit the following categories:

### Human Diversity in American Culture

These courses focus on differing races, ethnic groups, religious groups, gender differences, and differences in sexual preference within the United States. Many view the United States as special insofar as the nation has been forged by people from many different backgrounds. Courses in this category examine the very American interactions among diverse peoples with emphasis on identity, dominance, and plurality.

### Americans and Their Natural Environment

These courses focus on the relationship between the geography and ecology of the United States and American culture. Special emphasis is given to the way American culture has cultivated a particular response to natural phenomena. There are historical and philosophical reasons for the unusual interest in natural phenomena in the United States that courses fulfilling this goal examine.

### American Culture Studies

Courses in this category focus on the prominence of popular culture in the United States as a result of the growth of a middle class. Much of what the middle class has helped to generate as cultural artifacts shows a separation that divides popular culture from high culture. Yet, courses fulfilling this goal often explore the complex relationships between high culture and popular culture in the United States. Courses can fulfill this goal by examining the cultural movements (folk art, for example) that are significant to the broader American culture.

### Individualism and Community in America

These courses focus on the dichotomy between self-reliance and the pursuit of self-interest versus the seeming compulsion for conformity that has been widespread in the United States. Courses could explore the distinction between individualism expressed in a positive, laudable way (e.g. rugged individualism) and individualism as a form of deviance. Community could also be cast in positive and negative terms.

### The United States in Cross Cultural Perspective

These courses examine what people outside the United States perceive as American and what Americans perceive as foreign. American culture has been both idealized and vilified by non-Americans over time just as Americans are guilty of the same behavior with respect to foreign cultures. Americans are stereotyped by foreigners just as Americans stereotype them. Courses that fulfill this goal would focus on the ideals and stereotypes, and their origins, that define the United States from a global perspective and that define the foreign from an American perspective.

### Research in American Studies

Through these courses, students explore American culture, learn to apply the skills of critical analysis to such things as artifacts, documents and technology, and learn about regional differences in culture. One example of an approach that courses fulfilling this goal take is to use Springfield as a laboratory to acquaint the student with the dynamic character of Springfield as a frontier town and later as an agricultural and industrial center.

## **Requirements for Major**

American Studies 100: Introduction to American Studies, History 221H: United States History I, History 222H: United States History II, and either American Studies 400: Readings in American Studies or one of the courses in the Research in American Studies category. A student must take at least five additional courses (20 semester hours) drawn from at least three of the following areas: Human Diversity in American Culture, Americans and Their Natural Environment, American Culture Studies, Individualism and Community, or The United States in Cross-Cultural Perspective. Two of these courses (eight semester hours) must be at the 300 level or above. Successful defense of the senior thesis serves as the comprehensive examination in American Studies.

## **Requirements for Minor**

American Studies 100: Introduction to American Studies; History 221H: United States History I or History 222H: United States History II; 12 additional semester hours in American Studies with at least four hours taken in 300-level courses.

## **Course Listings**

### **100 H. An Introduction to American Studies. 4 semester hours**

Introduction to the study of American culture using methods drawn from cultural anthropology and from other disciplines such as history, literature, philosophy, and the social and natural

sciences. The course begins by defining and outlining the basic elements of culture, then develops more complex concepts of culture such as ethnocentrism, cultural relativism, values, universalism, artifacts and idiosyncratic behavior. The content in this course necessarily varies regularly. Writing intensive. Every year.

**400. Readings in American Studies. 4 semester hours.**

Directed readings course in American Studies topics, which involves the writing of literature surveys and oral presentation of topics under study. Writing intensive.

**490. Research in American Studies. 4 semester hours.**

Writing intensive. Every year.

**491. Internship. Variable credit.**

**499. Honors Thesis/Project. Variable credit.**

Prerequisites: 3.50 GPA, permission of the Department Chairperson.

## Art

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Professor Jack D. Mann

Associate Professors Edward M. Charney, Chair, and Scott Dooley

Assistant Professor Alejandra Gimenez-Berger

### **Requirements for Bachelor of Arts Degree with a Concentration in Studio Art**

Forty-two semester hours of art are required for a Bachelor of Arts degree with a concentration in studio art. The following course requirements and a Senior Studio Thesis Seminar exhibition must be completed:

- a. Art History I and II; 8 semester hours
  - b. Modern Art History; 4 semester hours
  - c. Studio Foundations: Two-Dimensional Design; 4 semester hours
  - d. Studio Foundations: Three-Dimensional Design; 4 semester hours
  - e. Basic Drawing; 4 semester hours
  - f. Art Elective; 4 semester hours
  - g. Courses in concentration of choice; 12 semester hours
  - h. Senior Studio Thesis Seminar; 2 semester hours
- Total: 42 semester hours

### **Requirements for Bachelor of Arts Degree with a Concentration in Art History**

Forty-two semester hours of art are required for a Bachelor of Arts degree with a concentration in art history. The following course requirements and an Art History Senior Thesis Presentation must be completed:

- a. Art History I and II; 8 semester hours
  - b. Studio Foundations: Two-Dimensional Design; 4 semester hours
  - c. Studio Elective or Studio Foundations: Three-Dimensional Design; 4 semester hours
  - d. Basic Drawing; 4 semester hours
  - e. Upper-Level Art History (must include one course from each of the following areas: ancient and medieval; renaissance and baroque; modern); 20 semester hours
  - f. Art History Senior Thesis; 2 semester hours
- Total: 42 semester hours

### **Requirements for Bachelor of Fine Arts Degree**

Sixty-eight semester hours are required for the Bachelor of Fine Arts degree. A student wishing to earn this degree needs to begin the general art requirements and foundations sequence in the freshman year and maintain an average of at least two art courses per semester throughout the four years. A 3.00 grade-point average must be maintained within the Art Department, and candidacy for the B.F.A. must be declared by the end of the sophomore year. The following course requirements and a Senior Thesis Solo Exhibition must be completed:

- a. Art History I and II; 8 semester hours
  - b. Modern Art History; 4 semester hours
  - c. Upper-Level Art History Elective; 4 semester hours
  - d. Studio Foundations: Two-Dimensional Design; 4 semester hours
  - e. Studio Foundations: Three-Dimensional Design; 4 semester hours
  - f. Basic Drawing; 4 semester hours
  - g. Drawing I or Upper-Level Printmaking; 4 semester hours
  - h. Art Electives; 12 semester hours
  - i. Courses in concentration of choice; 20 semester hours
  - j. Senior Studio Thesis Seminar; 4 semester hours
- Total: 68 semester hours

### **Requirements for Minor**

A minor in art may be earned with a focus in art history or studio art. Twenty semester hours in art are required.

#### **Art History:**

- a. History of Art I and History of Art II; 8 semester hours
  - b. Studio Foundations: Two-Dimensional Design; 4 semester hours
  - c. Upper-Level Art History; 8 semester hours
- Total: 20 semester hours

#### **Studio Art:**

- a. History of Art I or History of Art II; 4 semester hours
  - b. Studio Foundations: Two-Dimensional Design; 4 semester hours
  - c. Basic Drawing; 4 semester hours
  - d. Studio Electives; 8 semester hours
- Total: 20 semester hour

### **Residence Requirements for Bachelor of Arts and Bachelor of Fine Arts Degrees**

Due to the need to maintain overall continuity in the art program for the B.A. in Art and the B.F.A., the Art Department requires the two Foundations courses (101 and 103) and one art history course to be taken in residence. The Senior Thesis Seminar and the Art History Senior Thesis Seminar courses must also be taken in residence.

### **Certification for Teaching in Art**

Students interested in pursuing a course of study leading to a license to teach art should contact their adviser or the Education Department for specific requirements.

### **Studio Courses**

**101A. Studio Foundations: Two-Dimensional Design. 4 semester hours.**

Introduction to the basic components of the visual arts with special emphasis on the role of media. A primary goal is to develop a student's ability to think in visual terms. Every year.

**103. Studio Foundations: Three-Dimensional Design. 4 semester hours.**

An exploration of the formal use of space as it is applied to threedimensional form. The student will be introduced to the elements of height, width, depth, volume and form. Project research will be in the realm of non-objectivity, abstraction and reality. Particular attention will be given to the techniques of drawing, model making and presentation of a final solution. Emphasis will be placed on creative thinking and problem solving in the context of small-scale and larger projects. Every year.

**121A. Basic Drawing. 4 semester hours.**

Part of the first-year Foundations sequence. Introduction to the basic disciplines of drawing — line, value composition, etc. Special emphasis on drawing as a tool for gathering ideas. Every year.

**131A. Introduction to Painting. 4 semester hours.**

Survey of a variety of painting techniques and visual issues. Emphasis placed on creative expression and exploration with several painting styles and historical approaches to picture making. Students will also learn about general historical contexts of painting from ancient through contemporary applications. Every year.

**151. Introduction to Printmaking. 4 semester hours.**

Survey of printmaking techniques designed to expose students to the possibilities of artistic expression through traditional as well as recently developed approaches to printing. Every year.

**221. Drawing I. 4 semester hours.**

Emphasis on further developing drawing techniques introduced in Basic Drawing. Skills in problem solving will be enhanced through narrative interpretation and drawing from landscapes, nature and the human figure. Visual analysis, media exploration, and personal stylistic growth are also vital components of this course. Prerequisite: Art 121. Every year.

**231. Painting I. 4 semester hours.**

Introduction to the basic materials, processes, and concepts of oil painting. Prerequisite: Art 121. Every year.

**241A. Introduction to Photography. 4 semester hours.**

Introduction to the basic function and handling of the 35mm single lens reflex camera and processing of film, and printing of black and white photographs. Lectures, field work and darkroom experience. Every year.

**245A. Computer Imaging I. 4 semester hours.**

Studio course using the computer as a direct source for creation of artworks. Various software programs are explored in concert with computers and their peripheral equipment. Every year.

**251A. Printmaking I. 4 semester hours.**

Introduction to the processes and techniques of intaglio or lithographic printmaking. Alternate years.

**261A. Sculpture I. 4 semester hours.**

Introduction to three-dimensional concepts. Exploration in wood construction, plaster and clay emphasized. Every year.

**265A. Silver Jewelry. 4 semester hours.**

Silver used to produce small art forms intended as body embellishment. Basic fabricating techniques, simple forming and centrifugal casting. Every year.

**285A. Handbuilt Ceramics. 4 semester hours.**

Construction of clay pieces without the potter's wheel. Handbuilding investigated primarily through the use of coils and slabs. Basic decorating and glazing techniques explored. Every year.

**292A. Ceramics I. 4 semester hours.**

Introduction to wheel throwing and handbuilding methods of clay construction, and basic decoration and firing techniques. Every year.

**321. Drawing II. 4 semester hours.**

Emphasis on further developing drawing techniques explored in Drawing I. Students will be encouraged to choose an art direction and solve associated problems in order to reach a satisfactory creative outcome. We will continue to work with a wide range of subject matter and in a variety of media, and attention will be given to the development of personal artistic style. Prerequisite: Art 221. Every year.

**331. Painting II. 4 semester hours.**

Continuation of Art 231. Primary emphasis placed on understanding the unique characteristics of various painting techniques. Prerequisite: Art 231. Every year.

**341. Advanced Photography. 4 semester hours.**

Extension of Art 241A. Continued development of ideas. Prerequisite: Art 241 or permission of instructor. Every year.

**345. Computer Imaging II. 4 semester hours.**

Extension of Art 245. Advanced studio course using the computer to create artworks. Specific software programs are learned in depth and used with each other to produce more complex and competent artworks. Every year.

**351. Printmaking II. 4 semester hours.**

Advanced printmaking techniques. Continuation of Art 251, which is a prerequisite. Every year.

**361. Sculpture II. 4 semester hours.**

Continuation of Art 261. Exploration in carving, modeling, and construction. Investigation of stone, wood, metal, plaster, clay, and found objects. Prerequisite: Art 261. Every year.

**365. Silver Jewelry II. 4 semester hours.**

Advanced silver jewelry techniques. Continuation of Art 265, which is a prerequisite. Every year.

**380. Topics in Studio Art. 2-4 semester hours.**

Courses in special studio art as described in the course schedule for each semester. This course may be repeated for credit.

**385. Handbuilt Ceramics II. 4 semester hours.**

Advanced study of handbuilding techniques. Prerequisite: Art 285. Every year.

**392. Ceramics II. 4 semester hours.**

Advanced study of building methods. Prerequisite: Art 292. Every year.

**421. Drawing III. 4 semester hours.**

A continuation of 321. Development of a deeper understanding of drawing techniques in a more concentrated individual style. Prerequisite: Art 321. Every year.

**431. Painting III. 4 semester hours.**

Continuation of Art 331. Major emphasis on the development of the student as an independent artist. The student makes a series of paintings as a means of investigating a single idea or theme. Prerequisite: Art 331. Every year.

**451. Printmaking III. 4 semester hours.**

Advanced work in the graphic processes. Specialized study in individual creative and technical problems. Prerequisite: Art 251 or 351. Every year.

**461. Sculpture III. 4 semester hours.**

Individual studio atmosphere with the student expressing a strong creative direction on material. Working from the figure model is a possibility. Prerequisite: Art 361. Every Year.

**490. Independent Study. 4 semester hours.**

Advanced individual study in the history, theory, or studio aspects of art. Prerequisite: Permission of the department. Every year.

**491. Internships. 1-4 semester hours.**

Structured opportunities for the junior or senior art major to apply learned skills in a real-world situation. The student must register and complete the required application before beginning the internship and must have both a departmental sponsor and an on-site sponsor. The internship is evaluated on a credit/no-credit basis, and it is the departmental sponsor's responsibility to review the project upon completion and decide whether credit should be granted.

**492. Ceramics III. 4 semester hours.**

Continuation of Art 392, which is a prerequisite. Every year.

**498. Senior Studio Thesis Seminar. 2-4 semester hours.**

A two-semester seminar course designed to assist art students in the development and execution of a senior project as well as preparation for life in the arts after college. The first semester will focus on the skills necessary to put together a cohesive self-promotion package and resume. The second semester will focus on the development and exhibition of a Senior Studio Thesis Seminar project. Students must register for the course both semesters, but the grade will not be issued until the second semester in the spring. Required for studio art majors. This course requirement will involve seniors in the Bachelor of Arts-Studio and Bachelor of Fine Arts majors together. BA students will follow a one and one-credit sequence, and BFA students will follow a two and two-credit sequence during their senior year. Every year.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## **Art History Courses**

### **110H. History of Art I. 4 semester hours**

Selective chronological survey of architecture, painting, sculpture and decorative arts from the birth of art in the Prehistoric period through its development in the Middle Ages. Although this course focuses on art created in Western Europe, the survey will also include the art of the Ancient Near East and the Byzantine Empire. Every year.

### **120H. History of Art II. 4 semester hours.**

Selective chronological survey of the arts of the Western world from the Renaissance through the Modern period. This course traces the development of the pictorial traditions of the West by concentrating on the major artists and movements, beginning with the resurgence of classical antiquity in the Italian Renaissance and culminating with the radical artistic innovations of the 20th century. Every year.

### **220H. Renaissance Art. 4 semester hours.**

Examination of Renaissance painting, sculpture and architecture from the Late Gothic period (ca. 1270-1300) through the Renaissance (Early and High) and Mannerism. The artists and monuments in Florence, Rome and Venice will receive special attention, although developments in other regions in Italy will also be discussed. Emphasis will be placed on the departure from Medieval art and the revival of Antiquity, and art objects and monuments will be discussed in the context of individual artists, patrons and religious and historical events. Every third year.

### **230H. Baroque and Rococo Art. 4 semester hours.**

Surveys the art, architecture and sculpture produced during the Baroque and Rococo periods from ca. 1600-1800 in Western Europe. The major artists, art works and stylistic characteristics of both periods will be presented according to their country of origin. Art objects and monuments will be discussed in the context of individual artists, patrons and religious and historical events. Every third year.

### **240H. Early Christian and Byzantine Art. 4 semester hours.**

Explores the foundations of the Christian tradition in the visual arts in Late Antiquity (ca. 200-565 AD) in the Roman Empire and traces its development through the early, middle and late periods of Byzantine art, primarily in the East. The various art historical periods such as Hiberno- Saxon, Carolingian, Ottonian, Romanesque and Gothic will be covered chronologically and by region in Europe. Emphasis will be given to the religious beliefs and traditions that informed the period. Every third year.

### **243H. Western Medieval Art. 4 semester hours.**

Covers the art and architecture produced from the decline of the Roman Empire through the Gothic period in the West. The various art historical periods such as Hiberno-Saxon, Carolingian, Ottonian, Romanesque and Gothic will be covered roughly chronologically and by region in Europe. Emphasis will be given to the historical context and the religious beliefs that informed the Middle Ages. Every third year.

**275. Greek and Roman Art. 4 semester hours.**

Focuses on Greek and Roman painting, sculpture and architecture as well as the decorative arts. Works of art will be analyzed in relation to the historical background of these fundamentally different civilizations and in terms of the objects' original function or context. Students will gain a solid understanding of the visual characteristics and the artists and architects that embody these movements. Every third year.

**280. Topics in Art History. 2-4 semester hours.**

Courses in the history of art as described in the course schedule for each semester.

**350. Modern Art. 4 semester hours.**

Investigation into the art and architecture from the end of the 19th century (c. 1890) through the contemporary period, primarily in Western Europe and America. The art historical movements, including the artists and stylistic traits which embody them, will be studied roughly chronologically. Every third year.

**497. Art History Senior Thesis. 4 semester hours.**

A supervised independent study in which the student will be expected to produce a 20 to 30 page paper on an approved Art History topic. Because advancement in the field of Art History relies heavily on research and publications, this paper should demonstrate the student's ability to conduct in-depth research and to produce a writing sample suitable for entry into graduate school or a position in the field. Students will be expected to meet with the professor at regular intervals so that the professor may determine the rate of progress and offer guidance and support. Every year.

## Biochemistry/Molecular Biology

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Professor David L. Mason (Biology)

Associate Professors Amil G. Anderson (Chemistry), Margaret A. Goodman (Biology), Director, Peter E. Hanson (Chemistry), and Jay A. Yoder (Biology)

Assistant Professor Matthew H. Collier (Biology)

### Requirements for Major (B.A.)

Required in Biology and Chemistry

Biology 170, 310, 312; Chemistry 121, 162, 201, 271, 372; Biochemistry and Molecular Biology 400.

Required in Related Departments

Physics 200, Mathematics 201 or 131, plus one additional course from Mathematics 202, 205, 227. (Note: Mathematics 201 is a pre-requisite for Mathematics 202 and 205.)

### Requirements for Major (B.S.)

Required in Biology and Chemistry

Biology 170, 310, 312, and one additional biology course from 215, 224, 237, 316, 319, 323 or 324; Chemistry 121, 162, 201, 271, 281, 302, 311, 372, and Biochemistry/Molecular Biology 400.

Required in Related Departments

Mathematics 201 and 202, Physics 200 and 218.

### Recommended Additional Courses for Those Planning to Pursue Graduate Studies

Students planning to pursue graduate work in Biochemistry, Molecular Biology or one of the other biomedical sciences should take Mathematics 201 and 202, Physics 218, Chemistry 302, 311 and 352, and one additional 4 or 5 credit 200 or 300-level biology course selected from the following: 224, 234, 237, 315, 316, 318, 319, or 347.

### Requirements for Minor:

Biology 310, Chemistry 201, 271, 372, plus two courses from Biology 215, 237, 312, 316 and 319. A student who satisfies this minor takes a minimum of five courses in chemistry (121, 162, 201, 271, 372) and four courses in biology (170, 310 and two from 215, 237, 312, 316, 319). The number of courses required in biology and chemistry for this minor makes it a reasonable minor only for the student majoring in biology or chemistry. For the biology or chemistry major the BMB minor represents typically one to three additional courses beyond those cognates already required for a biology or chemistry major. A student is not allowed to minor in biology or chemistry if also completing the minor in biochemistry/molecular biology.

### Honors in Biochemistry/ Molecular Biology

Honors in Biochemistry/ Molecular Biology requires an overall GPA of 3.5 and will require completion of the equivalent of 10 semester hours of research approved by the director of the program, culminating in a written thesis and public oral presentation, either at Wittenberg or a

regional/national scientific meeting. A three person committee, appointed by the director of the program, will evaluate the written thesis and conduct an oral examination. One member of the committee will normally be the project supervisor. The student is not required to have registered for credit hours of research but instead must have completed the equivalent of 10 credits (400 hours) of research activities.

### **Course Listings**

#### **400. Primary Literature Seminar. 2 semester hours.**

A series of papers from the current research literature will be presented and discussed by the members of the seminar. This will give students the opportunity to learn to see how concepts and techniques that have been introduced in previous courses are actually applied in a contemporary research project. Papers will be selected in consultation with the faculty member, and the focus of the seminar will alternate from year to year between molecular biology and biochemistry. Students may take this seminar twice for credit; 2 credits count toward the BMB major. Prerequisites: Biochemistry/Molecular Biology major or minor. Must have previously completed either Chemistry 271 (Biochemistry) or Biology 310 (Molecular Biology) and have permission of the instructor. Every year.

## Biology

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Professors Ronald A. deLanglade, Horton H. Hobbs III, Timothy L. Lewis, Chair, and David L. Mason

Associate Professors Margaret A. Goodman, Cathy L. Pederson, Jay A. Yoder, Kathleen A. Reinsel, and James M. Welch

Assistant Professors Margaret A. Goodman, Kevin M. Gribbins, and Michelle McWhorter  
Lab Coordinator Ruth L. Lewis

### Requirements for Major (B.A.)

A student planning to major in biology develops a plan of study based on the following guidelines. The biology major consists of 41 semester hours of biology plus 23 semester hours in other science departments. In the plan of study, the student must select at least one course from each of the following: (Botanical) – Biology 230, 234, 235, 236, 248, 249, 323, 341, or 346; (Zoological) – Biology 224, 231, 232, 233, 238, 239, 247, 324, or 342.

### Requirements for Major (B.S.)

Forty one semester hours of biology plus 33 semester hours in other science departments. It requires careful and nearly complete use of a student's electives and is intended for those students who need the specific and additional sciences required for entry into graduate programs leading to technical science careers or the Ph.D. in a biological field.

The course requirements are the same as listed for the B.A. degree except as follows: Biology 255 must be one of the Area III courses, Biology 215, 224, 310, 312, or 316 for group course, a year each of Mathematics (Mathematics 201: Calculus I or Math 131: Essentials of Calculus; and one of Mathematics 202: Calculus II, Mathematics 127: Introductory Statistics, or Math 227: Data Analysis) and Physics (Physics 200: Mechanics and Waves and either Physics 205: Classical and Modern Physics or Physics 218: Introductory Electromagnetism) are also required. An independent research project (Biology 492: Directed Research or other equivalent experience) is highly recommended.

### Area I:

Biology 170: Concepts in Biology: Biological Information, Reproduction, and Evolution is to be taken by all majors and minors as a prerequisite to all other Biology courses except those at the 100-level.

Biology 180: Concepts in Biology: Energy and Resources in Biology is to be taken by all majors or minors as a prerequisite to all other Biology courses, except those at the 100-level.

Note: Biology 170 and Biology 180 may be taken in either order. Students with an advanced placement score of 4 will receive credit for Biology 110. Students with an advanced placement score of 5 will receive credit for either Biology 250.

## Area II:

A minimum of four semester hours from each of the following groups. Note that all courses at the 200-level and above have Biology 170 and 180 as prerequisites.

### Group 1: Molecules, Organelles, Cells

- Biology 214: Developmental Biology; 5 semester hours
- Biology 215: Genetics; 5 semester hours
- Biology 219: Immunology; 5 semester hours
- Biology 310: Molecular Biology; 5 semester hours; prerequisites: Chemistry 121 & 162
- Biology 312: The Cell; 5 semester hours; prerequisites: Chemistry 121 & 162
- Biology 315: Genetics; 5 semester hours; prerequisites: Chemistry 121 & 162

### Group 2: Tissues, Organs, Systems

- Biology 220: Neurobiology; 5 semester hours
- Biology 221: Pharmacology; 4 semester hours
- Biology 223: Survey of Human Diseases; 4 semester hours
- Biology 323: Plant Physiology; 5 semester hours; prerequisites: Chemistry 121 & 162
- Biology 324: Animal Physiology; 5 semester hours; prerequisites: Chemistry 121 & 162
- Biology 325: Human Anatomy and Physiology I; 5 semester hours; prerequisite: 1 upper level Biology course
- Biology 326 Human Anatomy and Physiology II, 4 semester hours; prerequisite: 1 upper level Biology course
- Biology 328: Microscopy; 5 semester hours; prerequisite: Chemistry 162

### Group 3: Organisms

- Biology 230: Woody Plants; 4 semester hours biology courses
- Biology 231: Vertebrate Zoology; 5 semester hours; prerequisites: 2 other biology courses
- Biology 232: Mammalian Ecology; 5 semester hours
- Biology 233: Ornithology; 5 semester hours
- Biology 234: Morphology of Nonvascular Plants; 5 semester hours
- Biology 235: Morphology and Taxonomy of Vascular Plants; 5 semester hours
- Biology 236: Local Flora; 5 semester hours
- Biology 237: Microbiology; 5 semester hours
- Biology 238: Entomology; 5 semester hours
- Biology 239: Biology of Marine Invertebrates; 5 semester hours

#### Group 4: Populations, Communities, Ecosystems

- Biology 243: Cave Ecology; 4 semester hours
- Biology 247: Marine Ecology; 5 semester hours
- Biology 248: Comparative Communities-Bahamas; 5 semester hours
- Biology 249: Comparative Communities-Northern Forests; 5 semester hours
- Biology 341: Limnology; 5 semester hours; prerequisites: Chemistry 121 & 162
- Biology 342: Stream Ecology; 5 semester hours; prerequisites: Chemistry 121 & 162 and Biology 341
- Biology 346: Ecology; 5 semester hours; prerequisites: one group 2, 3, or 4 course, Math Placement 22
- Biology 347: Evolution; 4 semester hours; prerequisites: At least two other biology courses at 200 level or higher

#### **Area III:**

A minimum of nine semester hours of additional credits from any of the above or Biology 255: Biological Literacy, 4 semester hours; Biology 258: Extended Field Studies, up to 5 semester hours\*; Biology 250: Topics (topic varies with offering), up to 5 semester hours; Biology 492: Directed Research, up to 5 semester hours\*; Biology 493: Internship, up to 5 semester hours\*; and Biology 494 Topic Seminar; 1-4 semester hours (topic varies with offering). Up to five credits of 100-level Biology may count here with Department approval.

\*Up to five semester hours of each may count toward the major.

#### **Area IV:**

Biology 406: Senior Capstone Seminar, 4 semester hours, taken during the senior year.

#### **Area V:**

Fifteen semester hours of chemistry: Chemistry 121, Chemistry 162, Chemistry 201.

#### **Area VI: Supporting Science**

A minimum of eight semester hours from the Departments of Chemistry (beyond Chemistry 201), Computer Science, Environmental Studies, Geology (150 or higher), Mathematics (120 or higher), or Physics (107 or higher). It is not required that all the credits be taken from the same department.

The following courses also satisfy the requirements in the related sciences:

- Environmental Studies 101: Assessing Human Impact on the Environment
- Geography 222: Weather & Climate
- Geography 305: Air Photo and Map Interpretation
- Geography 390: Geographical Information Systems

- Health Fitness and Sport 250: Nutrition
- Marine Science 200: Oceanography
- Psychology 107: Statistics
- Psychology 207: Experimental Design
- Psychology 311: Behavioral Neuroscience

### **Requirements for Minor**

A minor in biology requires 24 semester hours, including Biology 170 and 180, plus 14 additional semester hours in majors-level biology courses. These may be selected by the student in consultation with the biology minor adviser so that diversification or specialization is possible. Advice and consent of the department chair are required for a biology minor.

### **Certification for Teaching in Life Science**

Students interested in pursuing a course of study leading to a license to teach life science should contact their adviser or the Education Department for specific requirements.

### **Special Programs in Biology**

#### *Forestry and Environmental Studies*

Wittenberg has a cooperative program with the Duke University Nicholas School of the Environment. The student interested in this area attends Wittenberg for three years and, if accepted, then transfers to Duke for the senior year. After successfully completing the first year at Duke, the student receives the Bachelors of Arts degree from Wittenberg and then completes the requirements for the Master of Environmental Management degree granted by Duke. Additional information about this program may be obtained from the Biology Department or the Admission Office. See Environmental Studies for a description of Wittenberg's interdepartmental minor.

#### *Marine Biology*

A limited number of junior or senior students recommended by the Department may attend the Duke University Nicholas School of the Environment Marine Laboratory's fall or spring academic programs at Beaufort, N. C. A full semester's work may be taken from the course offerings at the Marine Laboratory. Most courses taken at Duke can count toward the student's major, with Department approval. The student pays Wittenberg tuition, and Duke room, board, and fees.

Course work at Wittenberg prior to attending Duke should include some combination of Biology 239: Biology of Marine Invertebrates, Biology 234: Nonvascular Plants, Biology 247: Marine Ecology, Biology 341: Limnology, and Marine Science 200: Oceanography, in addition to Chemistry 121 and 162. The student should consult with the Marine Science program director to develop a plan of study.

During alternate summers the Biology Department offers a two-course program on San Salvador, The Bahamas. Students study marine taxonomy, morphology and structure, and ecology. Each student also conducts independent research with the purpose of eventual publication.

Wittenberg also offers a minor in Marine Science, which prepares students for advanced study in Marine Biology and Oceanography. See the section on Marine Science for details.

#### *Normal Volunteer Program at the National Institutes of Health*

Normal volunteers at the National Institutes of Health (NIH) are healthy patients in the research hospital-clinical center. From these volunteers, physicians learn more about physiology and metabolism, knowledge that leads to an understanding of body function — and sometimes to new treatment of diseases.

NIH is the federal government's primary agency for medical research. Its facilities are located on a 306-acre campus in Bethesda, Md., a suburb of Washington, D.C. This combination hospital-research center houses 511 patient beds and more than 1,000 laboratories. From their participation, volunteers gain a unique experience through career assignments, consisting of on-the-job training in medical research. Students may also receive academic credit for work done in their career assignments as a part of their clinical assignments.

#### *Pre-Health Professions*

The student interested in a career in human or veterinary medicine, dentistry, optometry, nursing, occupational therapy or another health profession needs to plan the sequence of courses carefully in order to complete the prerequisite courses for the various health profession schools and prepare for the national admission tests. Prerequisite courses for the health professional schools typically include one year of biology, two years of chemistry, one year of physics, one year of mathematics, and one year of English. In addition to these requirements, schools may have other courses that they require from the humanities or social sciences. Students with specific questions should seek guidance from the Pre-Health Professions Adviser. For more information, please see the Pre-Health section.

#### *Nursing*

Wittenberg has a 3-4 cooperative program with the Frances Payne Bolton School of Nursing at Case Western Reserve University and a 3-1 program with The Johns Hopkins University School of Nursing. The pre-nursing student spends three years at Wittenberg studying basic science and liberal arts, prior to entering nursing school.

If accepted, after satisfactory completion of the first year at Case Western Reserve University or The Johns Hopkins University, the student receives the Bachelor of Arts degree from Wittenberg.

At Case Western Reserve University, the student spends four years in the nursing program. The goal of this level is to prepare the student for advanced practical and clinical research in nursing. Satisfactory completion of this program leads to the awarding of the Doctor of Nursing (N.D.) degree by Case Western Reserve University.

At The Johns Hopkins University, the student spends two years in the nursing program. Students may earn a B.S.N. or Master's Degree in Nursing.

Additional information about these nursing programs may be obtained from the Pre-Health Professions Adviser or the Office of Admission.

### *Occupational Therapy*

Wittenberg has a cooperative program with Washington University (St. Louis) School of Medicine through its program in occupational therapy. The pre-occupational therapy student spends three years at Wittenberg studying basic science and liberal arts, while completing the major portion of the biology major requirements. If accepted by Washington University, the student begins the occupational therapy program in the fourth year. The Bachelor of Arts degree from Wittenberg is conferred at the end of the first year at Washington University, and the Master of Science degree in occupational therapy is awarded at the end of the second year there. Additional information about this program may be obtained from the Pre-Health Adviser or the Office of Admission.

## **Course Listings**

### **104. Topics in Biology Seminar. 1-4 semester hours.**

Study of selected topics relating the person to nature and society and of the conflicts between people and their environment. Topics vary by instructor. Offered subject to demand and availability of faculty.

## **BIOLOGY 100 SERIES**

These courses are designed to give students an opportunity to examine the way a biologist works in the profession, i.e. how experiments are designed to uncover new facts, the role of observation, the difference between results and conclusions, etc. The subject matter is, for the most part, selected to show the relevance of biology to everyday living, and to allow students to gain some control over decisions about their health and well-being and become knowledgeable citizens. These courses are open to all students but count toward a major in biology only with department approval.

### **110N. Survey of Biology. 4 semester hours.**

This course is designed to be a basic introduction to biology, beginning with the basic building blocks and continuing through an introduction to each of the kingdoms of life and fundamental life processes. There will be an emphasis on fundamental principles and the interrelationships between the different topics covered. Open to all students but counts toward a major in biology only with department approval.

### **111N. DNA, Cloning, Genetic Engineering: Fact or Fiction. 4 semester hours.**

Beginning with the basic structure of DNA and how information is coded by DNA, the student will investigate fundamental aspects of DNA metabolism. With this understanding, the class will

discuss recent development in biotechnology including genetic testing and engineering, cloning, and the legal and ethical ramifications. Open to all students but counts toward a major in biology only with department approval.

**120N. Human Health and Pathology. 4 semester hours.**

Course material will include an overview of human biology with an emphasis on practical application of preventive health measures and wellness. Lecture and discussion will revolve around the study of structure, function and pathology of organ systems. Open to all students but counts toward a major in biology only with department approval.

**121N. Physiological Biology. 4 semester hours.**

Student will study contemporary applications in biology at the cellular, organ and system levels, the process of homeostasis and disease-producing processes and mechanisms, and learn fundamentals of biological chemistry, taxonomy and systematics, evolution, molecular biology and ecology. Open to all students but counts toward a major in biology only with department approval.

**122N. Genetics and Disease. 4 semester hours.**

The course examines genetics and diseases, including plagues and epidemics, the development and wise use of antibiotics, reproduction, infertility, development, genetic disorders and modern experimental techniques that permit such medical intervention as gene therapy and “high-tech” babies. Students will consider ethical issues related to these new techniques and genetic counseling practices. Open to all students but counts toward a major in biology only with department approval.

**123B. How Animals Work. 4 semester hours.**

This course focuses on the physiological ecology of animals: How they work at a systems level and how this affects their interactions with their environment. Topics include the scientific method, basic biological and ecological principles, and how specific animals deal with extreme environments through unique adaptations. This course combines lectures with laboratory exercises examining physiological principles. Open to all students but counts toward a major in biology only with department approval.

**130B. The Botanical World. 4 semester hours.**

This course focuses on the natural world as related to higher plants. The primary goal is to give the students the necessary framework to understand the botanical world around them by covering the basic aspects of the science of botany, general plant structure, chemistry, heredity, growth, and development and reproduction as related to plants. Where appropriate, the importance to society of the various topics will be discussed. Open to all students but counts toward a major in biology only with department approval.

**131N. Woody Plants of the Natural and Urban Environments. 4 semester hours.**

This course is to acquaint the student with the various native and cultivated forms of woody trees, shrubs, and vines as found in natural and urban environments. Topics covered include basic classification, naming, use of taxonomic keys, life histories, basic growth patterns, culture and care. Field trips to local sites will be taken. Open to all students but counts toward a major in biology only with department approval. A student cannot receive credit for both 131 and 230.

**140N. Understanding Organic Evolution. 4 semester hours.**

This course explores organic evolution. Using discussion, lecture, selected videos and movies, and numerous articles to allow students to understand organic, physical and cultural evolution. Open to all students but counts toward a major in biology only with department approval.

**141N. Introduction to Marine Biology. 4 semester hours.**

This course focuses on the biology of marine systems. It begins with basic physical characteristics of the world's oceans and the basic processes of life. It then covers diversity of life in marine systems, a survey of marine habitats, and discussion of human impacts on marine systems. Open to all students but counts toward a major in biology only with department approval.

**142N. Ecological Biology and Environmental Issues. 4 semester hours.**

This is an introductory course for non-majors with emphasis on ecological and environmental biology. Students will examine the structure and function of natural ecosystems and the impacts of humans on these ecosystems. Open to all students but counts toward a major in biology only with department approval.

**143N. Cave Ecology. 4 semester hours.**

This course is a basic introduction to cave ecology. Several field trips to caves with projects relating to cave ecology will be carried out during these trips. Much of the semester will be spent examining speleogenesis, the structure and the function of cave ecosystems, as well as the evolutionary biology of obligate cave inhabitants. Every year. Open to all students but counts toward a major in biology only with department approval.

**170B. Concepts of Biology: Biological Information, Reproduction, and Evolution. 5 semester hours.**

This course, part of a two-course series along with Biology 180, serves as the foundation to the biology major. Students will study how biologically necessary information associated with life is stored, reproduced, and subjected to natural selection. These themes will be explored at different biological levels of organization from DNA through ecosystems. There are no prerequisites for this course. It may be taken before or after Biology 180. Every year.

**214. Developmental Biology. 5 semester hours.**

Introduction to development, including coverage of descriptive vertebrate embryology. Emphasis given to the experimental analysis of selected molecular and cellular changes during development in animals. Prerequisites: Biology 170 and 180. Writing intensive. Every year.

**215. Genetics. 5 semester hours.**

This course will examine the scope and significance of modern genetic principles. Lecture and lab topics will include molecular and Mendelian genetics, protein synthesis, recombinant DNA, genetic engineering, effects of stressors upon genetic systems, human genetics, and population genetics. Particular attention will be paid to learning how to apply basic genetic principles to biological problems and to developing analytical skills. Prerequisites: Biology 170 and 180. Every year.

**219. Immunology. 5 semester hours.**

Designed to acquaint the beginning student in immunology with the history of the field, its molecular, cellular and organismal components, and the areas of interaction between the immune response, genetics, endocrinology, embryological development and aging. Prerequisites: Biology 170 and 180. Every year.

**220. Neurobiology. 5 semester hours.**

Basics of neuronal communication and organization of the nervous system (particularly the brain) into various systems. The visual, auditory and motor systems are discussed. Laboratories focus on the anatomy and current understanding of the mammalian brain. Prerequisites: Biology 170 and 180. Every year.

**221. Pharmacology. 4 semester hours.**

This course shows the effects of chemicals on the nervous system. Some of the pharmacological agents to be studied will include antidepressants, anticonvulsants and oral contraceptives. In addition, the course will focus on chemicals encountered in the environment, i.e. pesticides, and their effects on wildlife and human populations. Prerequisites: Biology 170 and 180. Alternate years.

**223. Survey of Human Disease. 4 semester hours.**

Topics in this course include infection (viruses, bacteria, fungi chlamydia, mycoplasma), parasitic, genetic and autoimmune diseases, cancer, and diseases that relate to specific organs and organ systems of humans. Prerequisites: Biology 170 and 180. Every year.

**230. Woody Plants. 4 Semester hours.**

This course acquaints the student with various native and cultivated forms of woody trees, shrubs, and vines as found in natural and urban environments. Topics covered include basic classification, naming, use of taxonomic keys, life histories, basic growth patterns, culture, and care. Field trips to local sites will be taken. A student cannot receive credit for both 131 and 230. Prerequisites: Biology 170 and 180. Every year.

**231. Vertebrate Zoology. 5 Semester hours.**

Review of organogenesis and of the general vertebrate body plan followed by a study of comparative aspects of adult structure. Includes an introduction to both the pathways by which the higher vertebrates have evolved and the nomenclature, taxonomy and zoogeography of the vertebrate group. Prerequisite: Biology 170 and 180. Every year.

**232. Mammalian Ecology. 5 semester hours.**

Survey of the global diversity of mammalian life, with particular emphasis on taxonomy, evolution and ecology. Prerequisites: Biology 170 and 180. Alternate years.

**233. Ornithology. 5 semester hours.**

Survey of taxonomy, morphology and ecology of avian orders. Emphasis placed on Midwest examples, includes observation trips. Prerequisites: Biology 170 and 180. Every year.

**234. Morphology of Nonvascular Plants. 5 semester hours.**

Structure, reproduction and evolutionary relationships of fungi, algae and bryophytes. Prerequisites: Biology 170 and 180. Every year.

**235. Morphology of Vascular Plants. 5 semester hours.**

Structure, reproduction, identification, and evolutionary relationships of vascular plants. Prerequisites: Biology 170 and 180. Every year.

**236. Local Flora. 5 semester hours.**

Systems of classification and rules of nomenclature, with emphasis placed on the identification of native and cultivated plant taxa of the northeastern United States. Generally taught in the first summer session. Prerequisites: Biology 170 and 180. Alternate years.

**237. Microbiology. 5 semester hours.**

Basic principles of bacteriology and virology, stressing structure, metabolism, classification and application. Prerequisites: Biology 170 and 180. Every year.

**238. Entomology. 5 semester hours.**

Morphology, taxonomy and behavior of insects. Includes collection, preservation and study of specimens representing many orders. Field and laboratory identification of insects. Prerequisites: Biology 170 and 180. Every year.

**239. Biology of Marine Invertebrates. 5 semester hours.**

General consideration of the morphology, physiology and life histories of invertebrate animals. Laboratory experience in methods of collecting, identifying and culturing many organisms studied with emphasis placed on marine forms. Prerequisites: Biology 170 and 180. Every year.

**243. Cave Ecology. 4 semester hours.**

This course is a basic introduction to cave ecology. Several field trips to caves with projects relating to cave ecology will be carried out during these trips. Much of the semester will be spent examining speleogenesis, the structure and the function of cave ecosystems, as well as the evolutionary biology of obligate cave inhabitants. Prerequisites: Biology 170 and 180. A student cannot take both Biology 143N and Biology 243 for credit. Must be taken with related section of Biology 258.

**247. Marine Ecology. 5 semester hours.**

This course will focus on the ecology of marine systems, particularly nearshore benthic communities. Students will become familiar with the primary literature and 'classic' studies that helped to define marine community ecology, as well as the processes that structure a variety of marine communities. Lab exercises include collection, identification and enumeration of sediment-dwelling invertebrates, comparisons of species diversity of different habitats and general diversity of marine organisms in a variety of habitats. Prerequisites: Biology 170 and 180. Math and Writing intensive. Every year.

**248B. Comparative Communities - Bahamas. 5 semester hours.**

Course designed to acquaint the student with the environmental factors, both ancient and modern, that influence terrestrial and aquatic biological community composition and distribution. The course is offered during the summer session and entails extended field work in The Bahamas. Prerequisites: Biology 170 and 180. Writing intensive. Alternate years (summer session).

**249B. Comparative Communities - Northern Forests. 5 semester hours.**

Course designed to acquaint the student with the environmental factors, both ancient and modern, that influence terrestrial and aquatic biological community composition and distribution. The course is offered during the summer session and entails extended field work in the Minnesota wilderness. Prerequisites: Biology 170 and 180. Writing intensive. Alternate years (summer session).

**250. Topics in Biology. 1-5 semester hours.**

The study of selected topics relating the student to natural, biological phenomena. Topics vary with instructor. The course counts toward a major in biology. This course may be repeated for credit. Prerequisites: Biology 170 and 180.

**255. Biological Literacy. 4 semester hours.**

Study of common sources, methods and techniques used in presenting biological literature. A strong emphasis on bibliographic sources and written and oral presentation of biological materials. Recommended for students planning to enter graduate programs in biology. Prerequisites: Biology 170 and 180. Writing intensive. Every year.

**258B/N. Extended Field Studies. 0-2 semester hours.**

Associated with several courses are extended field study trips lasting four to five days. During this period the student spends 8 to 12 hours per day in specimen and data collection and analysis. Prerequisites: Biology 170 and 180. Every year.

**310. Molecular Biology. 5 semester hours.**

Designed to introduce the fundamental conceptual and laboratory techniques of molecular biology, this course emphasizes the molecular biology of DNA, transcription control, and genetic engineering. Topics include molecular biology of the gene, molecular immunology, molecular control of developmental processes, and intermediary metabolism along with laboratories appropriate to these topics. Prerequisites: Biology 170 and 180 and Chemistry 121 and 162. Writing intensive. Every year.

**312. The Cell. 5 semester hours.**

This course focuses on correlation of cell structure and function, with an emphasis on the fundamental processes involved in building and maintaining a cell. Prerequisites: Prerequisites: Biology 170 and 180 and Chemistry 121 and 162. Writing intensive. Every year.

**316. Molecular Genetics and Bioinformatics. 5 semester hours.**

This course will focus on the molecular basis of heredity, beginning with an introduction to DNA structure, replication, and transcription, then move to a consideration of the entire genetic makeup of an organism: the genome. Students will investigate the components of a gene, the arrangement of genes on the chromosome, and the regulation of gene expression. They will also learn the computational and laboratory methods used in chromosome mapping and genome sequencing. Emphasis will be placed on sequence comparison as a means to learn more about gene structure and prediction, protein structure and function, and evolutionary relationships between species. We will take advantage of the extensive data available through on-line databases of the human genome and other gene sequences. Prerequisites: Biology 170 and 180 and Chemistry 121 and 162.

**324. Animal Physiology. 5 semester hours.**

Emphasis is given to the comparative study of mechanisms of organ systems in the major animal groups, with stress on the ecological physiology of vertebrates. Prerequisite: Prerequisites: Biology 170 and 180 and Chemistry 121 and 162. Every year.

**325. Human Anatomy and Physiology I. 5 semester hours.**

Students will study the structure and function of major organ systems of the human body in both lecture and laboratory. Topics covered include histology and the integumentary, skeletal, muscular, nervous, sensory, endocrine, and reproductive systems. Laboratories will be coordinated with the lecture and focus on the anatomy and physiology of the systems discussed, as well as an independent research project. Assessment will include three written examinations, two lab practical examinations, review sheets for laboratory exercises, course review sheet, and a final examination. Prerequisite: one upper level Biology course or permission of the instructor. Every year.

**326. Human Anatomy and Physiology II. 4 semester hours.**

Students will study the structure and function of major organ systems of the human body in both lecture and laboratory. Topics covered include circulatory, lymphatic, respiratory, digestive, and urinary systems as well as nutrition and heredity. Assessment will include three written examinations, five Latin root quizzes, course review sheet, and a final examination. Course may be accompanied by optional one-credit laboratory course. Laboratories will be coordinated with the lecture and focus on the anatomy and physiology of the systems discussed, and will also include a major independent research project. Grading for that laboratory course will be based on the project, review sheets, and one lab practical examination. Prerequisite: one upper level Biology course or permission of the instructor. Every year.

**327. Human Anatomy and Physiology II Laboratory. 1 semester hour.**

This course is optional, but may be taken concurrently with Biology 326. Every year.

**328. Electron Microscopy. 5 semester hours.**

Fine structural analysis of cells by means of transmission and scanning electron microscopy. Both normal and malignant cells of animal tissues are evaluated at the light and electron microscopic levels. Fluorescence and immunomicroscopy are introduced as tools for elucidating subcellular components. Prerequisites: Biology 170 and 180 and Chemistry 121 and 162. Writing intensive. Every year.

**341. Limnology. 5 semester hours.**

Study of fresh water stream and lake ecosystems, with special attention given to the physical, chemical and biological features. Writing intensive. Prerequisites: Biology 170 and 180 and Chemistry 121 and 162. Alternate years.

**342. Stream Ecology. 5 semester hours.**

Study of the physical, chemical and biological processes of stream ecosystems. A student field research project and oral presentations are required. Prerequisites: Biology 170, 180, and 341, and Chemistry 121 and 162. Writing intensive. Alternate years.

**346. Ecology. 5 semester hours.**

Survey of biotic communities and populations with emphasis upon structure, influencing factors and techniques of study. Individual investigation into the ecology of species also expected of each student. Writing and math intensive. Prerequisites: One Group 2, 3, or 4 Biology course after Biology 170 and 180 and Math Placement 22. Every year.

**347. Evolution. 4 semester hours.**

Critical examination of the evidence for biological evolution with particular emphasis upon the historical development of the concept; evolutionary mechanisms; species diversity, both past and present; and the geographical distribution of living organisms. No laboratory. Prerequisite: Two biology courses in addition to Biology 170 and 180. Writing intensive. Every year.

**406. Senior Capstone. 4 semester hours.**

The purpose of this course is to encourage student integration of their major subject field across levels of organization, and beyond the clear realms of biology. Biological problems such as biodiversity, genetic engineering and diseases are examined from molecular biology through evolutionary considerations. Prerequisite: senior status and Biology 170 and 180. Writing intensive. Every year.

**492. Directed Research. 1-5 semester hours.**

Investigation of various biological topics by laboratory or field observations, experimentation and data collection. Directed by a biology faculty member. The final results of this work are presented as a paper in proper journal format and/or an oral presentation. Course may be taken more than once; however, only five semester hours count toward the nonhonors biology major as listed in Area III of the major requirement. Prerequisites: Biology 170 and 180. Writing intensive. Every semester. This course may be repeated for credit.

**493. Internship. 1-5 semester hours.**

The student develops, under the direction of a faculty member and job-site supervisor, a work/study program in which practical experience and biology are used. Prerequisites: Biology 170 and 180. Writing intensive. Every semester. This course may be repeated for credit.

**494. Topic Seminar. 1-4 semester hours.**

Topics of particular interest to major students. Offered subject to sufficient demand by students and availability of faculty. This course may be repeated for credit. Prerequisites: Biology 170 and 180.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA, permission of the Department Chair. Prerequisites: Biology 170 and 180. Writing intensive.

## Chemistry

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Professor David C. Finster

Associate Professors Amil G. Anderson, Kristin K. Cline, Chair, and Peter E. Hanson

Assistant Professors Raymond Dudek and Justin Houseknecht

Chemistry Lab Coordinator Richard W. York

### **Requirements of Major (B.A.)**

Required in Chemistry

Chemistry 121, 162, 201, 281, 300, 311, 400, and eight more semester hours in chemistry. Of these, students may elect the pass/fail option for only 290, 491 and 492 and, no more than four semester hours may be applied toward the major from 290, 490, 491, and 492.

Required in Related Departments

Mathematics 201 and 202, and Physics 200 and 218.

Recommended in Chemistry

The chemistry major should consult with the academic adviser to supplement the minimum major requirements with additional courses appropriate to career goals and interest.

Recommended in Other Departments

The student planning to do graduate work in chemistry should consider taking additional courses in mathematics, computer science, physics, or biology. The student should consult the academic adviser to select these courses.

### **Requirements of Major (B.S.)**

Required in Chemistry

Chemistry 121, 162, 201, 271, 281, 300, 302, 311, 321, 352, 382, 400, and four more semester hours in Chemistry from 282, 303, 372, 380, 490, 491, 492, or 499. If the four additional semester hours do not include a lab experience, the student must complete an approved summer research project. Note that this degree program leads to certification by the American Chemical Society.

Required in Related Departments

Biology 170, Mathematics 201 and 202, and Physics 200 and 218.

### **Departmental Honors**

To receive honors in chemistry, the student must apply for departmental honors by the end of the junior year, have an overall average of 3.50, and an average GPA of 3.50 in chemistry and cognate courses, conduct at least 400 hours research activity on an approved project, present the Senior Seminar on the results of the project undertaken, and receive a grade of A+, A or A- in Chemistry 400.

### **Requirements for Minor**

Chemistry 121, 162, 201, and a minimum of eight semester hours from 271, 281, 302, 311, 321, 380 (with at least one course from 281, 311, or 321).

### **Special Programs in Chemistry**

Biochemistry/Molecular Biology - See Biochemistry/Molecular Biology

Engineering - See Engineering

Nursing - See Biology, Special Programs.

Pre-Medicine, including Pre-Dental and Pre-Veterinary Medicine - See Pre-Medicine

### **Course Listings**

#### **100N. Chemistry and Society. 4 semester hours.**

Designed to introduce the study of chemistry to the non-science major. Particular focus on science and society connections. Topics vary with instructor. Some laboratory experience may be included, but this course does not satisfy the Natural World requirement for a lab course. Credit cannot be applied toward a chemistry major or toward science course requirements for other science majors. Prerequisite: Math Placement level 22.

#### **121B. Models of Chemical Systems. 5 semester hours.**

Introduction to the study of chemistry and to the variety of models that are used to describe atoms, molecules and their reactions. Topics include atomic structure, molecular structure, elementary bonding, stoichiometry, thermochemistry, gases, solutions and acid-base chemistry. Weekly lab required. Mathematics 120 is recommended as a pre- or co- requisite. Every year. Note: Students with strong high school chemistry backgrounds or international students with strong science backgrounds should consult with the Department Chair about placing out of this course.

#### **162B. Chemical Structure and Analysis. 5 semester hours.**

Follows Chemistry 121 and introduces the student to simple kinetics, equilibrium, more acid-base chemistry, simple thermodynamics and electrochemistry, basic wet and instrumental analytical techniques, a selected survey of elements of the main group, and transition metals and their compounds. Weekly laboratory emphasizing analytical techniques and inorganic synthesis required. Prerequisites: Chemistry 121 and Mathematics 120 as a pre- or co-requisite. Every year. Note: Students with strong high school chemistry backgrounds or international students with strong science backgrounds should consult with the Chair of the Department about placing out of this course.

#### **201. Introduction to Organic Chemistry. 5 semester hours.**

First course in a two-cycle approach to the study of organic chemistry. Introductory survey of aliphatic and aromatic organic compounds emphasizing most common functional groups.

Fundamentals of organic structural theory, chemical bonding, nomenclature, stereochemistry, structure/property relationships and analysis of carbon compounds are covered. Reaction mechanisms are emphasized as the basis for understanding organic reactions. Techniques used in the synthesis, purification and analysis of organic compounds are emphasized in the laboratory. Prerequisites: Chemistry 162. Every year.

**271. Biochemistry I. 4 semester hours.**

Introduction to the study of structural biochemistry and metabolism. Emphasis on the chemistry of macromolecules (including proteins, lipids, carbohydrates and nucleic acids) involved in physiological processes. Prerequisites: Chemistry 201 and Biology 170. Every year.

**281. Analytical Chemistry. 5 semester hours.**

Advanced treatment of equilibria combined with an introduction to common instrumental methods. Includes statistical treatment of data, acid-base and other complex equilibria, spectroscopic, electrochemical, and chromatographic instrumental methods. Laboratory required. Prerequisites: Chemistry 162 and Mathematics 201.

**282. Qualitative Organic Analysis Laboratory. 2 semester hours.**

Primarily a laboratory experience directed toward the systematic identification of organic compounds through chemical and instrumental analysis. Prerequisite: Chemistry 201 and 281.

**290. Introduction of Research. 1-3 semester hours.**

Introduction to research methodology through the study of a laboratory research problem under the close supervision of a member of the faculty. Prerequisite: Permission of the supervising instructor.

**300. Junior Seminar. 1 semester hour**

Required of each chemistry major of junior standing. Attendance at weekly one hour-seminars and discussions is required throughout the year. Each student delivers a one-half hour presentation on a chemical topic prepared under the supervision of a member of the Chemistry faculty. Several sessions in the fall are devoted to bibliographic instruction, on-line searching, and oral and written communication used by practicing chemists. The student registers for the course during both semesters; 0 credits in the fall and 1 credit in the spring. Every year.

**302. Intermediate Organic Chemistry. 5 semester hours.**

Second course in a two-cycle approach to the study of organic chemistry. An in-depth study of organic reaction chemistry organized by reaction mechanisms. Spectroscopic analysis of organic compounds, structure/property relationship, reactions, mechanisms and multistep synthesis are emphasized. Additional techniques used in the synthesis, purification and analysis of organic

compounds are emphasized in the laboratory with a focus on multistep synthesis and spectroscopy. Prerequisite: Chemistry 201. Every year.

### **303. Advanced Organic Chemistry. 4 semester hours.**

Advanced treatment of topics in physical organic and/or synthetic organic chemistry. Topics include molecular orbital theory, pericyclic symmetry controlled reactions, stereochemistry, advanced spectroscopic analysis, modern synthetic reactions, and determination of reaction mechanisms through quantitative structure/property relationships, transition state theory and kinetics. Prerequisites: Chemistry 201, Mathematics 202 and Physics 218. Alternate years.

### **311. Physical Chemistry I. 5 semester hours.**

Introduction of the basic principles of physical chemistry, concentrating on the kinetics and molecular dynamics of chemical reactions and laws of thermodynamics and their relationship to equilibria in chemistry. Emphasis on analyzing and solving complex problems, making physical measurements and reporting laboratory results. Laboratory required. Writing Intensive. Prerequisites: Chemistry 281, Mathematics 202 and Physics 218. Every year.

### **321. Inorganic Chemistry 5 semester hours.**

Overview of the quantum mechanical model of atomic and molecular structure, including valence bond and molecular orbital theory, symmetry and group theory applied to molecular structure, acid-base models, ionic bonding and structure, redox chemistry and selected instrumental techniques as applied to inorganic compounds. Weekly laboratory required, which focuses on computational chemistry, and the synthesis and characterization of inorganic compounds. Prerequisites: Chemistry 281, Mathematics 202 and Physics 218. Every year.

### **352. Physical Chemistry II. 5 semester hours.**

Introduction of the physical chemistry principles that concern the structure of individual atoms and molecules, concentrating on quantum mechanics and spectroscopy. Also, the viewpoints of quantum mechanics and thermodynamics are brought together to discuss statistical thermodynamics. Continued emphasis on the analysis of complex problems, the collection of experimental data and the improvement of scientific communication skills. Laboratory required. Writing intensive. Prerequisite: Chemistry 311. Every year.

### **372. Biochemistry II. 5 semester hours.**

Continuation of study of metabolism begun in Chemistry 271 with an emphasis on regulation of complex metabolic pathways, including biosynthetic pathways and photosynthetic pathways and photosynthesis. Study of the flow of genetic information from DNA to proteins follows and then a series of student-selected special topics. Weekly laboratory required. Prerequisites: Chemistry 271, Mathematics 201 and Physics 200. Every year. Writing intensive.

### **380. Topics in Chemistry. 2-4 semester hours.**

Selected topics of current interest in various areas of chemistry. Prerequisite: Permission of the instructor. This course may be repeated for credit.

**382. Advanced Instrumentation. 5 semester hours.**

Advanced study of instrumental methods used for chemical analysis. Includes some basic electronics, common spectroscopic and separation methods. Lab required. Writing intensive. Prerequisites: Chemistry 281, Mathematics 202 and Physics 218.

**400. Senior Seminar. 1 semester hour.**

Required of each chemistry major of senior standing. Attendance at weekly one-hour seminars and discussions is required throughout the year. Each student delivers a one-hour presentation on a chemical topic prepared under the supervision of a member of the faculty. Several sessions in the fall are devoted to discussions of the ethical issues in science, the social context in which science transpires in our culture, and career options for chemistry majors. Each student registers for this course during both semesters; 0 credits in the fall and 1 credit in the spring. Writing intensive. Every year.

**490. Independent Study. 2-4 semester hours.**

Individual study on a topic beyond the scope of regular courses.

**491. Internship. 1-4 semester hours.**

Chemical research or activity during the summer or academic semester at an approved site or program. Prerequisite: Chemistry 281 and prior approval of the department. Every year. This course may be repeated for credit.

**492. Directed Research. 1-4 semester hours.**

Laboratory research project (which can include computational research) in collaboration with a member of the faculty. This may be a more intense continuation of a project started in Chemistry 290. Students must submit a comprehensive research report by the end of the semester. Prerequisites: Chemistry 271, 311, 321, or 382 and permission of the supervising instructor. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA, permission of the Department Chair.

## Communication

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Associate Professors Matthew J. Smith, Chair, and Catherine E. Waggoner  
Assistant Professor Stefne Broz  
Instructor Kathleen M. Warber  
Visiting Instructor Mohamed A. Sati

### Requirements for Major

The Communication major consists of 36 semester hours, distributed as follows: Communication 200, 300 and 403; eight semester hours from 270S, 280, and 290S; twelve semester hours from 301, 320, 322, 323, 327, 328, 330, 350, 351, 360, and 361; and four hours in an elective in Communication or other approved courses. Attendance at departmental colloquia is also required.

### Recommended Courses

The Communication faculty recommends that students enroll in Communication 301 as one of three "Advanced Seminar" courses in the major. The faculty also encourages students to explore internship possibilities. Both the department and the Career Center have resources to assist students in identifying potential internship sites. Students can also earn 1-8 semester hours of academic credit for a Communication internship through Communication 491. While these credits do not apply to the major, they do count towards the degree.

### Related Areas of Study

Students interested in Communication may wish to take course offerings from several other departments on campus. For students with specific professional aspirations, these offerings include English 241 Beginning Journalism, English 321 Advanced Studies in Journalism, Management 340 Marketing Management, Management 441 Advertising and Promotion, Art 241 Introduction to Photography, and Art 245 Computer Imaging. More broadly, students may also wish to further the ethical basis of their education by taking courses such as Philosophy 103 Ethics and Identity, Religion 171S Urban Life and Social Ethics, Religion 172S Poverty and Social Ethics, and Religion 176S Racism and Social Ethics. A student should consult with an academic adviser to consider further course work that would complement each individual's program of study.

### Course Listings

#### **190. Public Speaking. 4 semester hours.**

Addresses basic theoretical principles of effective public speaking necessary for pluralistic audiences, concentrating on content, organization, audience analysis, ethics, language, and delivery. Students apply these principles to several oral presentations, some requiring the use of PowerPoint. Every year.

**200. Introduction to Communication Studies. 4 semester hours.**

An introduction to communication theory in practical and relevant contexts (e.g., public speaking, relational communication, organizational communication, small-group communication). Writing intensive. Prerequisite: English 101. Every year.

**220. Topics in Communication. 4 semester hours.**

Courses entail an exploration of topics in communication studies in areas such as rhetoric, media, interpersonal, or organization communication. Alternate years.

**224. Group Dynamics. 4 semester hours.**

Explores the theory and practice of effective communication behaviors in group discussions. Structured group activities allow for application of scholarly theories of successful group interaction. Every year.

**270S. Interpersonal Communication. 4 semester hours.**

Introduces message production and interpretation in a face-to-face context. The primary objective of this course is to illustrate how choices in interpersonal communication behaviors are basic to our character as human beings and the nature of our interpersonal relationships. Every year.

**280. Reasoning and Communication. 4 semester hours.**

Study of and practice in practical reasoning, critical thinking, listening, reading, writing, speaking and relational skills, and informed deliberation of critical contemporary issues. Writing intensive. Prerequisite: English 101. Every year.

**290S. Media Literacy. 4 semester hours.**

Introduces students to media studies with special emphasis placed on developing critical interpretations of mass communicated messages. Examines topics such as the origins of mass communication systems, the audience, the current structure of media industries, and message content. Writing intensive. Prerequisite: English 101. Every year.

**300. Social Scientific Methods. 4 semester hours.**

Introduces social scientific research processes in the study of communication. Primary emphasis is on how to formulate a valid research question and conduct library research for an appropriate literature review. Addresses how to adhere to standards for scholarly writing, and how to critically evaluate others' research studies. Writing intensive. Prerequisites: Communication 200 and Communication 270S, 280, or 290S; math placement score 22. Every year.

**301. Critical Methods. 4 semester hours.**

Develops students' abilities to describe, analyze, interpret, and evaluate messages using the scholarly methods of the communication critic. Students review and apply multiple critical approaches (e.g., Neo-Aristotelian, semiotics, and ideological criticism). Writing intensive. Prerequisites: Communication 290S or permission. Every year.

**320. Topics in Communication and Culture. 4 semester hours.**

Includes courses a) analyzing the relationship between one's culture and one's communication practices and b) exploring communication processes in a variety of cultural contexts and across cultural differences (e.g., Communication and Gender; Intercultural Communication). Some courses may be writing intensive. May be repeated for credit. Prerequisites: Communication 200 and Communication 270S, 280, or 290S; or permission of instructor. Alternate years.

**322. Interpersonal Conflict. 4 semester hours.**

An advanced service-learning course in interpersonal communication that focuses on the communication behaviors that occur when individuals are in conflict. Requires the student to perform 30 hours of community service as part of a course project. Prerequisites: Communication 200 and Communication 270S, 280, or 290S; or permission of instructor. Alternate years.

**323. Interpersonal Influence. 4 semester hours.**

An advanced course in interpersonal communication that adopts a language-action perspective as it focuses on the interaction processes apparent when people attempt to directly influence the behaviors of other people. The personal ethics of interpersonal influence attempts are emphasized. Prerequisites: Communication 200 and Communication 270S, 280, or 290S; or permission of instructor. Alternate years.

**327. Health Communication. 4 semester hours.**

An advanced seminar that investigates a wide range of scholarship about health communication. Emphasis is on the nature of the communication processes that influence and/or are influenced by health and health care contexts, such as communication between health care provider and patient, as well as public health communication. Prerequisites: Communication 200 or permission of instructor. Alternate years.

**328. Intercultural Communication. 4 semester hours.**

An advanced seminar that investigates the nature of the communication processes that influence and/or are influenced by intercultural contexts. Specifically, the ways in which cultural values and orientations shape communication styles, preferences, and expectations will be considered. Ethics, cultural identity, conflict, and communication competence will be emphasized. Prerequisites: Communication 200 or permission of instructor. Alternate years.

**330. Analysis of Persuasion. 4 semester hours.**

Explores theories of persuasion with the goal of helping students become critical receivers of persuasion in contexts such as political rhetoric, print and electronic advertising, visual persuasion, and social movements. Writing intensive. Prerequisites: Communication 200 and Communication 270S, 280, or 290S; or permission of instructor. Alternate years.

**350. Topics in Media. 4 semester hours.**

Courses entail an advanced exploration of such topics as the nature, function, history, processes, and effects of media and communicating in mediated contexts (e.g., Media Ethics, Computer-Mediated Communication). Emphasis is not on production, but on the critical interpretation of the media. Some courses may be writing intensive. May be repeated for credit. Prerequisites: Communication 200 and 290. Alternate years.

**351. Media Law. 4 semester hours.**

Examines how the law helps shape the activities of mass media industries in the United States with an emphasis on understanding First Amendment principles as they relate to mass communication. Prerequisites: Communication 290S or permission of instructor. Alternate years.

**360. Topics in Rhetoric. 4 semester hours.**

Courses entail an advanced exploration of rhetoric (e.g., Contemporary Perspectives on Rhetoric, Feminist Rhetorical Theory, Rhetoric of Social Movements). Writing intensive. May be repeated for credit. Prerequisites: Communication 200 and 280. Alternate years.

**361. Gender and Communication. 4 semester hours.**

Explores critically the relationship among gender, communication, and various cultural institutions, practices, and contexts, focusing particularly on rhetorical constructions of gender and the resulting politics. Writing intensive. Prerequisites: Communication 200 and 270S, 280, or 290S; or permission of instructor. Alternate years.

**403. Communication Senior Seminar. 4 semester hours.**

Capstone experience. Through their work in small-group projects, students will practice research, writing and critical thinking skills that are part of the process of conducting communication research, culminating in a public presentation of their results. Writing intensive. Prerequisites: Communication 200 and 300; senior standing. Every year.

**490. Independent Study. 1 - 4 semester hours.**

No more than four semester hours may be counted for the major. Prerequisite: Permission of instructor. Every year.

**491. Internship. 1 - 4 semester hours.**

Prerequisite: Permission of instructor. Every year.

**499. Senior Honors Thesis/Project. 1 - 4 semester hours.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Community Service

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Believing students should gain an understanding of the role, responsibility, and challenge of service in community life, Wittenberg requires completion of thirty hours of community service for graduation, achieved by registering for Community Service 100 and satisfactorily completing the course requirements.

### **100. Community Service. 0 semester hours.**

To complete this class, students must: (1) Attend Community Service Orientation; (2) Complete 27 hours of direct service (20 hour minimum at one site); (3) Participate in a mid-semester reflection session; and (4) Submit completed paperwork: service log, site mentor evaluation, self-evaluation, and reflection essay by the assigned deadline.

Students should register for Community Service 100 and complete it prior to their senior year. The Community Service Office coordinates the service requirement at Wittenberg and serves as a liaison between the students and community sites.

## Computational Science

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Eric Stahlberg, Computational Scientist in Residence, Director

The methods of Computational Science (COSC) have been applied to problems such as aeronautical design, environmental improvement, neuroscience, pharmaceutical design, and weather forecasting. More recently, high performance computation, traditionally used in physics and chemistry, has been applied to biology, geology, environmental studies, and some of the social sciences. The development of COSC as an interdisciplinary field has had a profound effect on the way that basic and applied research in science, engineering, and industry are conducted. Less than ten years ago, these methods required very expensive supercomputers and specialized parallel programming techniques to be effective. Today, a large percentage of these applications can be done on personal computers, workstations, and parallel computing clusters. Using such equipment, the Computational Science program facilitates an in-depth study of computational techniques and modeling approaches as they are applied to the sciences. The program is beneficial to students from any discipline that involves empirical approaches to gain an understanding of the world. This is especially true for students pursuing undergraduate research, including those students intending to pursue graduate studies in such disciplines.

### Requirements for Minor in Computational Science

Nineteen to 26 semester hours are required for the Computational Science minor, in accordance with the following: Computer Science 150 (Introduction to Programming) or equivalent, either Mathematics 201 (Calculus I) or Mathematics 131 (Essentials of Calculus), Mathematics/Computer Science 260 (Computational Models and Methods), at least 8 semester hours in elective coursework from courses (listed below) containing a significant integrated COSC component, and a capstone project from a separate activity (0-4 semester hours), which substantially involves computational modeling and analysis and results in a formal product such as a written report and/or professional presentation. In addition, COSC Minors are required to have a laboratory experience in two courses that meet the Natural World goal (the General Education program requires only one.)

### Required Courses (14-18 semester hours)

1. Computer Science 150Q. Introduction to Programming. 5 semester hours. Prerequisites: Level 22 placement on the Mathematics Placement Exam.
2. One of the following courses:
  - Mathematics 201Q. Calculus I. 4 semester hours. Prerequisite: MATH 120 or level 25 placement on the Mathematics Placement Exam.
  - Mathematics 131Q. Essentials of Calculus I. 4 semester hours. Prerequisite: MATH 120 or level 25 placement on the Mathematics Placement Exam.
3. Mathematics/Computer Science 260. Computational Models and Methods. 5 semester hours. Prerequisites: Either Mathematics 201 or 131, either Computer Science 150 or permission of the instructor.

4. Capstone Experience (0-4 semester hours)

In the Capstone Experience, students must demonstrate that they can apply the knowledge from the required and elective coursework in a substantial project within a given discipline. This must involve a significant and integrated computational focus throughout the project. The project must be equivalent to a creditbearing activity of at least 4 semester hours, typically in the student's major, though it may not simply be a project completed for the required or elective coursework for the major. For students in any major field, the capstone project could take the form of a required senior thesis, a departmental honors project, a project related to one of Wittenberg's summer programs, a project from an internship, an independent study in the major, a directed student research project, etc. Regardless of the form, the project must result in a formal product such as a professional presentation or report. Before beginning the capstone project, the student must submit a project proposal for approval to both the Director of the Computational Science Minor and the Chairperson of the participating department. This proposal will specify the name of a faculty member to supervise the project, will detail how computational models and computational methods will be used in the project, and describe the plans for the formal presentation of the work. A formal presentation, either written, oral, or both, will be evaluated by the Director, Chairperson, and supervising faculty member.

**Elective Courses (8 Semester hours with at least two of the following)**

**Biology**

**316. Molecular Genetics and Bioinformatics. 5 semester hours.**

Prerequisites: Biology 170 and 180 and Chemistry 121 and 162.

**341. Limology. 5 semester hours.**

Prerequisites: Chemistry 121 and 162.

**342. Stream Ecology. 5 semester hours.**

Prerequisites: Chemistry 121, 162, and Biology 341.

**346. Ecology. 5 semester hours.**

Prerequisites: One group 2, 3 or 4 Biology course and Math Placement 22.

**347. Evolution. 4 semester hours.**

Prerequisites: Two Biology courses in addition to 170 and 180.

**Chemistry**

**311. Physical Chemistry I. 5 semester hours.**

Prerequisites: Chemistry 281, Mathematics 202 and Physics 218.

**321. Inorganic Chemistry. 5 semester hours.**

Prerequisites: Chemistry 281, Mathematics 202, and Physics 218.

**352. Physical Chemistry II. 5 semester hours.**

Prerequisites: Chemistry 311.

**372. Biochemistry II. 5 semester hours.**

Prerequisites: Chemistry 271, Mathematics 201 and Physics 200.

**Computer Science**

**Computer Science/Mathematics 320. Numerical Analysis. 4 semester hours.**

Prerequisites: Mathematics 202, Mathematics 205, Computer Science 150.

**Computer Science 350. Artificial Intelligence 4 semester hours.**

Prerequisites: Mathematics 171 and 205, Computer Science 250.

**Computer Science 370. Computer Graphics 4 semester hours.**

Prerequisites: Computer Science 275.

**Computer Science/Mathematics 380. Optimization**

Prerequisites: Computer Science 150, Mathematics 201, Mathematics 205.

**Economics**

**300. Econometrics. 4 semester hours.**

Prerequisites: Economics 190, Management 210 or its equivalent.

**370. Mathematics for Economists. 4 semester hours.**

Prerequisites: Economics 310, Mathematics 201 or Mathematics 131.

**Geology**

**220. Environmental Geology. 5 semester hours.**

Prerequisites: Geology 150 or 110 and a score of 22 on Math Placement Exam.

**240. Process Geomorphology. 5 semester hours.**

Prerequisites: Geology 150, Geology 210 or permission of instructor.

**400. Sedimentology. 5 semester hours.**

Prerequisites: Geology 210, 300.

**Mathematics**

**Mathematics 205. Applied Matrix Algebra. 4 semester hours.**

Prerequisite: Mathematics 201.

**Mathematics 215. Differential Equations. 4 semester hours.**

Prerequisite: Mathematics 202.

**Mathematics 227. Data Analysis. 4 semester hours.**

Prerequisite: a score of 25 on the Math Placement Exam.

**Physics**

**311. Classical Mechanics. 4 semester hours.**

Prerequisite: Physics 220.

**320. Computational Physics. 2 semester hours.**

Prerequisites: Physics 220, Mathematics 202, Computer Science 150.

**321. Signal Processing. 2 semester hours.**

Prerequisites: Physics 218, Mathematics 202.

**332. Electromagnetism. 4 semester hours.**

Prerequisites: Physics 311, Mathematics 212.

**410. Mathematical Physics. 4 semester hours.**

Prerequisites: Physics 311, Mathematics 212, Mathematics 215.

**411. Quantum Mechanics. 4 semester hours.**

Prerequisite: Physics 311.

## Computer Science

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Associate Professors Nancy K. Saks and Brian J. Shelburne, Chair  
Assistant Professor Steven A. Bogaerts

### Requirements for Major (B.A.)

Required in Computer Science

Forty-one semester hours: Computer Science 150, 250, 253, 255, 265, 275; twelve additional semester hours in courses numbered above Computer Science 255; two or more semester hours from one of the following: Computer Science 460, 490, or 499.

Required in Mathematics

Eight semester hours: a course in calculus, either Mathematics 131 or 201; and Mathematics 271.

### Requirements for Major (B.S.)

Required in Computer Science

Forty-five semester hours: Computer Science 150, 250, 253, 255, 265, 275, 285, and either 260 or 320; eight additional semester hours numbered above Computer Science 255; two or more semester hours from one of the following: Computer Science 460, 490, or 499. Note: Majors interested in going to graduate school are *strongly* encouraged to complete a senior independent study (Computer Science 490) or a research project / honor thesis (Computer Science 499).

Required in Mathematics

Sixteen semester hours: Mathematics 201, 202, 271, and either 205 or 227.

Required in Physics

Ten semester hours: Physics 200 and 218.

### Requirements for Minor in Computer Science

Required in Computer Science

Twenty-three semester hours: Computer Science 150, 250, 253, 255, and four additional semester hours in courses numbered above Computer Science 255.

Required in Mathematics

Eight semester hours: Mathematics 271 and either 131 or 201.

### Special Programs in Computer Science

Computational Science - See Computational Science

Engineering - See Engineering.

Mathematics - See Mathematics.

## Course Listings

### **121Q. Computing in the Arts and Sciences. 4 semester hours.**

Broad introduction to computing designed for the general liberal arts student. Emphasis on problem-solving through spreadsheets, databases, graphics and elementary programming. Operating systems, computer networks, and issues related to computers in society are also addressed. Laboratory required. Prerequisite: Appropriate level on the Mathematics Placement Exam. Every year.

### **150Q. Computer Programming I. 5 semester hours.**

Introduction to computer science through the use of programming. Designed primarily for the student who expects to take further courses in computer science. Topics include programming in a high-level language, problem-solving, algorithm design, control constructs, data constructs, input output, procedural abstraction and the role of computing in society. Laboratory required. Prerequisite: Appropriate level on the Mathematics Placement Exam. Every year.

### **246Q. Programming Language Laboratory. 2 semester hours.**

Study of one of several possible programming languages (e.g. C++, Java, Scheme, Prolog). Offered occasionally according to the needs and interest of students and/or faculty. Prerequisites vary, depending upon which language is taught, but in all cases the student must already know how to program in at least one high-level language. This course may be repeated for credit.

### **250Q. Computer Programming II. 5 semester hours.**

Continuation of Computer Science 150. Disciplined programming using one or two high-level languages with specific emphasis on program design, style, efficiency and documentation. Includes the theory and application of abstract data types using arrays, lists, stacks, queues, trees and networks. Also provides an overview of computer science. Laboratory required. Prerequisite: Computer Science 150 or equivalent. Writing intensive. Every year.

### **253Q. Principles of Software Design. 4 semester hours.**

This course emphasizes modern software design and development techniques, as well as expanding upon topics introduced in Computer Programming I and II. Topics covered include object-oriented design issues, formal design languages such as UML, design patterns, use of APIs, exception handling and fault-tolerant computing, event-driven programming, threading and multithreaded code, elementary concepts in security, authentication and encryption, the client-server model of networking, verification techniques, and advanced data structures. Assignments will be both theoretical and applied. Prerequisite: Computer Science 250. Every year.

### **255Q. Principles of Computer Organization. 5 semester hours.**

Considers the organization and architecture of the computer from the digital logical level to the conventional machine level to the operating system level. Programming assignments in Assembly language are used to demonstrate and reinforce the various architectural structures and techniques studied. Laboratory required. Prerequisite: Computer Science 150. Every year.

**260. Computational Models and Methods. 5 semester hours.**

Computational science is the field of study that integrates natural science, computer science and applied mathematics. This course is an introduction to the principles and approaches of computational science. This includes the understanding, development, and use of mathematical models as well as their effective computer implementation using languages such as Mathematica®, C/C++ and FORTRAN. It is specifically designed to be accessible to a wide range of students, especially those with an interest in biology, chemistry, geology, physics or psychology. A spectrum of problems taken from these sciences will be addressed. Topics include: using Mathematica®, Sources of Errors, The Experimental Method, Types of Science Models, Formula Evaluation, Dimensional Analysis, Model Sensitivity, Visualization Methods, Solving Equations, Computer Simulation, Floating-Point Arithmetic, Limits of Computation, Data Fitting, Optimization Methods and Ethical Issues. Each student will undertake a realistic modeling project in one of the sciences. Computer laboratory required. Prerequisites: 1. MATH 131 or MATH 201. 2. COMP 150 or previous programming experience with discretion of the instructor. The student will be expected to be familiar with the use of a scientific graphing calculator. This course is cross-listed as MATH 260. Students may enroll in either COMP 260 or MATH 260, but not both. Mathematical-reasoning intensive. Alternate years.

**265Q. Principles of Programming Languages. 4 semester hours.**

This course emphasizes the principles and programming styles associated with the four major language paradigms: imperative, functional, object-oriented and declarative; examination of contemporary programming languages. Topics include syntax and semantics, statement and subprogram control, data types and data control, design and implementation issues. Prerequisites: Mathematics 271 and Computer Science 250. Every year.

**275Q. Sequential and Parallel Algorithms. 4 semester hours.**

Systematic study of algorithms and of their complexity. A number of symbolic and numeric algorithms from the areas of searching and sorting, string and pattern matching, matrix and vector processing, and graph and tree algorithms are studied. Sequential and parallel algorithms are compared. The issues of intractable problems, P and NP algorithms, and NP completeness are studied. Prerequisites: Mathematics 271 and Computer Science 250. Co-requisite: Mathematics 205. Every year.

**280Q. Topics in Computer Science. 2-4 semester hours.**

Study of special topics not included in other departmental offerings. Offered occasionally according to the needs and interests of students and/ or faculty. Possible topics include Analysis

of Algorithms, Compiler Theory, Networks, Optimization Techniques, Parallel Processing, and Simulation Methods. Prerequisites vary. This course may be repeated for credit.

**285Q. Theory of Computation. 4 semester hours.**

Covers topics in the theory of computation. Topics include the study of finite state machines, pushdown automata, linearly bounded automata, Turing machines, languages, phase-structure grammars (regular, context-free, context-sensitive, unrestricted), parsing, decidability, computability, computational complexity, and the Chomsky Hierarchy. Prerequisite: Mathematics 271 and Computer Science 250. Usually offered in alternate years.

**290Q. Databases and Web-Based Computing. 4 semester hours.**

The primary topic of this course is databases and how they are used in database-driven web sites. We will cover some theoretical aspects of the field, but the primary emphasis will be on practical applications. Topics include design and use of databases through common software, the ER and Relational Data models, PHP, MySQL and development of a web-based database. Assignments will be both theoretical and applied. Prerequisite: Computer Science 150. Alternate years.

**320Q. Numerical Analysis. 4 semester hours.**

Introduction to the numerical solution of mathematical problems. Primary emphasis is on the development of computational techniques that can be implemented on a digital computer and on methods for establishing error bounds for approximate solutions. Prerequisites: Computer Science 150 and Mathematics 202 and 205. Usually offered in alternate years.

**331Q. Introduction to Computer Hardware. 5 semester hours.**

This course covers the design of digital electronic circuits including both combinational logic and synchronous sequential logic. Small-to-medium scale integrated circuits are used. Laboratory required. Prerequisite: Computer Science 255. Usually offered in alternate years.

**345Q. Optimization. 4 semester hours.**

Optimization is a very successful area of applied mathematics and its applications are very broad and diverse. This course addresses the problem of doing the "best" that one can do, possibly subject to resource constraints. Simulation models allow one to determine how a function behaves as its variables change. Optimization models are used to determine the "optimal" values of these variables so that the function can be maximized or minimized. In this course, one learns how to recognize and formulate different types of optimization models, sometimes called "mathematical programming" models (e.g., unconstrained, linear programming, quadratic programming, and general nonlinear programming). One learns how to identify local and global solutions to these models and how to find these solutions by using various algorithms (e.g., steepest descent, Newton, BFGS, simplex, gradient projection, evolution). This course will

present theory, methods, and applications equally. Both analytic and programming assignments will be given, together with exams. *Mathematica* will be used. This course is cross-listed as Mathematics 345. Prerequisites: Mathematics 201 and 205 and Computer Science 150.

**350Q. Artificial Intelligence. 4 semester hours.**

Introduction to the major areas of artificial intelligence and the use of computer language with both symbolic and numeric processing capabilities such as Common Lisp. The AI areas include knowledge representation, language understanding vision, expert systems, neural networks and robotics. Programs to implement techniques associated with these areas are written primarily in this language. Social, ethical and philosophical viewpoints related to AI are addressed. Prerequisites: Mathematics 271 and 205 and Computer Science 250. Usually offered in alternate years.

**351Q. Operating Systems. 4 semester hours.**

Process management, I/O devices, interrupt structures, resource and memory management, and file systems. Students study aspects of several operating systems and work in detail on one. Prerequisite: Computer Science 255. Writing intensive. Usually offered in alternate years.

**370Q. Computer Graphics. 4 semester hours.**

Explores computer graphics. Emphasis is on the techniques used and mathematics behind the standard graphics algorithms. Graphics software is developed based on a small number of primitive graphics operations. Prerequisite: Computer Science 275. Usually offered in alternate years.

**380Q. Topics in Computer Science. 2-4 semester hours.**

(See course description for Computer Science 280). This course may be repeated for credit.

**460Q. Seminar/Colloquium. 2 semester hours.**

Combined individual and group research presentations involving advanced computer science material. Required of all computer science majors. Writing intensive. Every year. This course may be repeated for credit.

**480Q. Topics in Computer Science. 2-4 semester hours.**

(See course description for Computer Science 280).

**490. Independent Study. Variable credit.**

Individual study by the advanced student of a topic beyond the scope of regular courses. Prerequisite: Approval of faculty member directing the study. This course may be repeated for credit.

**491. Internship. Variable credit.**

Open to the junior or senior computer science major by departmental permission only.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA, permission of the Department Chair.

## East Asian Studies

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Professors Stephen R. Smith (Anthropology), and Bin Yu (Political Science), Director  
Associate Professors Shih-Ming Li Chang (Theatre and Dance), Amy G. Christiansen (Japanese Language and Literature), Marcia Frost (Economics), Larry D. Gwinn (Economics), and Jennifer Oldstone-Moore, (Religion)

Assistant Professors Shelley Wing Chan (Chinese Language and Literature), Howard Choy (Chinese Language and Literature), Terumi Imai (Japanese Language and Literature), and Tanya Maus (History)

### Requirements for Major

The major in East Asian Studies requires a minimum of 44 semester hours listed below. 28 semester hours must include: one East Asian history course, four semester hours; East Asian Studies 400 Senior Seminar, four semester hours; eight semester hours above Chinese or Japanese 112 or equivalent; and four semester hours each from a minimum of any three of the following areas: economics, literature (either in English translation or designated upper-level language courses), political science, religion, or sociology. Sixteen semester hours may be made up of electives. Twelve or more hours toward the major must be at the 300 or higher course level; these hours may not be taken abroad.

### Requirements for Minor

The minor in East Asian Studies requires 20 semester hours, 13 hours of which must be taken at Wittenberg and must include Chinese or Japanese 111 or competency, and four semester hours each from at least two of the following areas: economics, history, literature, political science, religion or sociology. A minimum of eight semester hours must be at the 200 or higher course level.

### Course Listings

#### **100C. Introduction to East Asia: Continuity and Change. 4 semester hours.**

Introductory survey of the societies of China, Japan and Korea. Primarily designed for the student with no background knowledge of East Asia, this course examines the broad themes that shape these countries. Every year. Writing intensive. No prerequisites.

#### **290. Topics in East Asian Studies. 2-4 semester hours (1-8 semester hours for study abroad).**

Study of selected topics in East Asian Studies. Topics vary by instructor. This course counts as an elective toward a major or minor in East Asian Studies, and may be repeated for credit.

#### **400. Senior Seminar. 4 semester hours.**

Capstone course in which the senior East Asian Studies major integrates the major strands of East Asian history and society around a specified theme and writes an extensive research paper. Every year. Writing intensive. Prerequisite: Must be a senior East Asian Studies major.

**490. Independent Study. Variable semester hours.**

Course allows the advanced student the chance to do a directed independent research project. Writing intensive. Every year.

**491. Internship. Variable semester hours.**

At least one semester of work in some capacity related to East Asia in either the private sector or government. Student must write a paper related to the work experience. Every year. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA, permission of the Department Chair.

**Chinese**

**111. Beginning Chinese I. 5 semester hours.**

Introduction to spoken putonghua and the Chinese writing system. Mastery of 250 characters and compounds expected. Every year.

**112F. Beginning Chinese II. 5 semester hours.**

Continuation of 111. Mastery of another 300 characters and compounds expected. Prerequisite: Chinese 111 or its equivalent. Every year.

**130. Chinese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, reading in English. Some sections are writing intensive. This course may be repeated for credit.

**151. Modern Chinese Film and Fiction. 4 semester hours.**

Survey of film and fiction in 20th century China. Intended for students with no previous knowledge of the subject matter. Taught in English. Every year.

**211. Intermediate Chinese I. 4 semester hours.**

Emphasis on vocabulary acquisition and grammatical competency. Classes are conducted in spoken putonghua. Prerequisite: Chinese 112. Every year.

**212. Intermediate Chinese II. 4 semester hours.**

Continuation of 211. Prerequisite: Chinese 211. Every year.

**230. Chinese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, reading in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**311. Directed Reading of Chinese Newspapers. 4 semester hours.**

Emphasis on tactics and skills of reading Chinese newspapers. Class work is conducted in Chinese. Prerequisite: Chinese 212 or permission of instructor. Every year.

**312. Directed Readings of Chinese Literature. 4 semester hours.**

Intensive study of pieces representative of Republican and Communist style literature. Focus primarily on modern fiction. Prerequisite: Chinese 311 or permission of instructor. Every year.

**330. Chinese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**490. Independent Study. 4 semester hours.**

Tutorials for the student who has excelled in previous study of putonghua. Thematic content chosen according to student's intellectual interests. Conducted entirely in putonghua. Every year. This course may be repeated for credit.

**Economics**

**220C. Economics of Developing Areas. 4 semester hours.**

Introduction to the concepts, measures, theories, and strategies of modern economic growth and development relevant to the low-income nations of Asia, Africa, and Latin America. The course builds on the theories and models introduced in Economics 190, explores the inter-relationships between human development and economic growth, and allows each student to investigate the development experience of a particular nation. Writing intensive. Prerequisite: Economics 190. Alternate years.

**260C. East Asian Economies. 4 semester hours.**

Study of specific problems and institutions of the East Asian economies. Topics include development, trade, and commercial policies as well as fiscal and monetary policies in the region. Prerequisites: Economics 190. Writing intensive. Alternate years.

**290. Economies in Transition. 4 semester hours.**

Transition economics, a new field since the early 1990s, explores the process and results of the decisions of the nation states of the former Soviet Union, Eastern Europe, and East Asia to move from centrally-planned toward market and from socialist toward capitalist economies. A central focus of the course will be the examination of the strategies pursued and progress of transition in these countries at the macro and sectoral levels, the institutions that have evolved, and the human welfare consequences of the transition process. Prerequisite: Economics 190. Alternate years.

**Geography**

**250. East Asian Geography. 2 or 4 semester hours.**

**History**

**101. Topics. 2 to 4 semester hours.**

Surveys that study some region or civilization of the past. Some sections are writing intensive. May be repeated for credit.

**101C. Silk Road Empires. 2 to 4 semester hours.**

**161C. Pre-Modern East Asia. 4 semester hours.**

Survey of the history of East Asia's three major countries – China, Japan and Korea – from earliest times until the beginning of the 17th century. The focus is on culture and thought, as well as major political developments. Every year.

**162C. Modern East Asia. 4 semester hours.**

Survey of the history of East Asia's three major countries – China, Japan, and Korea – from the 17th century to the present. The focus is on the response of these countries to the challenges of an increasingly global world. Every year.

**202. Nationalism in East Asia. 4 semester hours.**

**203. Meiji Japan: Grappling with the Modern. 4 semester hours.**

**263C. Age of the Samurai. 4 semester hours.**

This course examines the era (1160-1868) when the warrior class dominated Japanese life. It focuses on the period's ever-changing cultural norms, value systems and political styles. No prerequisites. Writing intensive. Alternate years.

**301. Topics. 2-4 semester hours.**

Topical approach, focusing on a specific theme. Prerequisites vary by section. Some sections are writing intensive. Prerequisite: one course in history or permission of instructor. May be repeated for credit. Every year.

**301C. Great Mongol Khans. 2 to 4 semester hours.**

**361C. East Asia and the West. 4 semester hours.**

Examination of the relationship of China, Japan, and the Philippines with countries of the western hemisphere before and after the onset of imperialism. Interpretations focus on concepts such as orientalism, modernity and colonialism. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**362C. Japan since 1945. 4 semester hours.**

Survey of Japan's post-World War II experience, from defeat and occupation through a return to world power status. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**390. Samurai, Saints, and Scribblers. 4 semester hours.**

**Japanese**

**111. Beginning Japanese I. 5 semester hours.**

Introduces the fundamental communication skills of listening, speaking, reading and writing, as well as sociolinguistic information necessary for effective communication with Japanese natives. Every year.

**112F. Beginning Japanese II. 5 semester hours.**

Continued introduction of fundamental listening, speaking, reading and writing skills, together with the relevant sociolinguistic information. Prerequisite: Japanese III or placement. Every year.

**130. Japanese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Some sections writing intensive. Offered as need arises. This course may be repeated for credit.

**150A/C. Survey of Japanese Literature. 4 semester hours.**

Introduction to major literary works written in Japan between the year 900 and the present. Designed to be of interest to the entire campus community. Taught in English, readings in English. Every year.

**211. Intermediate Japanese I. 4 semester hours.**

Further development of the fundamental communication skills of listening, speaking, reading and writing, as well as the sociolinguistic information necessary for effective communication with Japanese natives. Prerequisite: Japanese 112 or placement. Every year.

**212. Intermediate Japanese II. 4 semester hours.**

Continued development of the fundamental communication skills of listening, speaking, reading and writing, as well as the sociolinguistic information necessary for effective communication with Japanese natives. Prerequisite: Japanese 211 or placement. Every year.

**230. Japanese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Some sections may be writing intensive. Offered as need arises. This course may be repeated for credit. Examples of courses that might be offered include:

**230 A/C. Japanese Women Writers of the 20th Century. 4 semester hours.**

In the Western imagination, Japanese women have been cast as gentle, voiceless creatures living in shadows of their husbands. But the fiction written by Japanese women presents a female image that is as vibrant as it is varied. This course will examine the various manifestations of the female image in the female-authored modern Japanese fiction from the turn of the twentieth century to the present.

**230 S. Language in Society. 4 semester hours.**

This course will look at language as it creates and responds to its cultural and social environments. Our main focus will be on the variation in one language, which results from different social statuses and purposes. We will seek to explain as well as describe such facts. Why do regional varieties of U.S. English continue to exist after years of mass media influence? Why does one variety of a language gain and maintain great prestige (the so-called standard variety)? Why are we prejudiced against some varieties of language, and what reasons do we offer for those prejudices? Why do men and women speak differently? Is English a sexist language? If so, what linguistics facts support such an interpretation? These are some of the questions we will be asking in this course. We will focus on language variation in English but will also read some articles on Japanese language variation to see if these variation patterns hold among different languages.

**230 S. Introduction to Linguistics. 4 semester hours.**

Have you studied a foreign language before? Have you wondered why it is so different from English? For example, why does Japanese have ways in the grammar to show respect for elders and superiors while English does not? Have you wondered why Russian does not have articles like "a" and "the" while English does? Have you wondered why your Spanish does not sound like your teacher's? If you answered yes to any of these questions, this class is for you. We will discuss the different levels of language (their sound systems, vocabularies, inflections, and grammars) and the role these languages and their units play in their respective societies.

### **311. Advanced Japanese I. 4 semester hours.**

The goal of the course is to develop culturally and socially appropriate proficiency in the four language skills: reading, writing, listening and speaking. Prerequisite: 212 or placement. Every year.

### **312. Advanced Japanese II. 4 semester hours.**

A continuation of 311, the goal of the course is to develop culturally and socially appropriate proficiency in the four language skills: reading, writing, listening and speaking. Prerequisite: 311 or placement. Every year.

### **330. Japanese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

### **490. Independent Study. Variable credit.**

This course may be repeated for credit.

## **Political Science**

### **205C. Chinese Politics. 4 semester hours.**

Introduction to Chinese politics since 1949. Topics include a brief overview of modern Chinese history and a survey of contemporary analyses of the Chinese political process. Emphasis is given to Chinese political culture, major political institutions and current policy issues. Every third year.

### **210C/S. East Asian Politics. 4 semester hours.**

The course introduces students to the political structure and dynamics of three major countries in East Asia: Japan, China (Mainland, Taiwan and Hong Kong), and Korea (South Korea and North Korea). The major objective is to make students familiar with their history, politics and economy, their relationships with each other and the impact of East Asia as a whole on global affairs.

**354. Chinese Foreign Policy. 4 semester hours.**

Analysis of the evolution and workings of Chinese foreign policy behavior in terms of historical patterns, the role of ideology, military and strategic factors, economics, domestic politics and the decision-making process. Chinese relations with the United States, Russia, Japan and other nations are discussed. Prerequisite: Political Science 102 or 205 and junior standing. Writing intensive. Alternate years.

**355. East Asian Foreign Relations 4 semester hours.**

The course introduces students to the dynamic interactions between major powers in East Asian (Japan, China, the United States, Russia and Korea). The objective is to make students understand and be able to critically analyze diplomatic process, patterns of external behavior of major powers, and transnational forces at work in the region. Prerequisite: Political Science 102, 210 or 251.

**Religion**

**134C/R. Chinese and Japanese Religious Traditions. 4 semester hours.**

This course examines several religious traditions that have shaped East Asian civilizations. We will study the formal traditions of Taoism, Confucianism, Buddhism, Shinto, and the New Religions; we will also consider the popular religious traditions of China and Japan. Classes include both lecture and discussion; students will be evaluated through essay exams, short papers, and analysis of scripture and other texts. Every year.

**333C/R. Buddhist Thought and Scriptures. 4 semester hours.**

Seminar studying the teachings and practices of schools of the Buddhist tradition through pivotal scriptures. Sutras and other texts from Theravada and Mahayana Buddhism will be considered in their historical and cultural contexts, and within the framework of central themes of Buddhism. Requirements include class discussion and presentations, two exams, one short paper, and a term paper. Writing intensive. Every third year.

**335C/R. Confucianism and Its Critics. 4 semester hours.**

Seminar on the history, central teachings, and institutions of the Confucian and Neo-Confucian traditions and Confucianism as manifest in the modern world. We will read pivotal works of Confucians including the *Analects*, *Mencius*, the writings of Zhu Xi, Wang Yangming and Tu Wei-ming. These will be assessed in part in contrast to critics of Confucianism ranging from classical philosophers to twentieth century Marxists. Writing intensive. Every year.

**336C/R. Religious Daoism and Chinese Popular Religion. 4 semester hours.**

Religious Daoism has been a way of self-cultivation, influential in Chinese imperial politics and history. This course will examine the tradition of Religious Daoism in historical context and

through the study of practices, including ritual, meditation, and yoga. We will also look at Religious Daoism from the vantage point of Chinese Popular Religion, the practices that have been the basis of the religion of the people to the present. Class will be a combination of lecture and discussion, with student presentations and a term paper. Writing intensive.

**339. Monkeys, Samurai, and Gods. 4 semester hours.**

This seminar will look at religious meaning and message in some of the best loved literature of China and Japan, including *Journey to the West*, *Tale of Heike*, *Dream of the Red Chamber*, *Account of my Hut*, and others. Class will be a combination of lecture and discussion, with student presentations and a term paper. Videos and other media will be used when possible. Writing intensive. Alternate years.

**Sociology**

**275C/S. Contemporary Japanese Society. 4 semester hours.**

Anthropological introduction to the cultural values and social organization of contemporary Japan. Uses a cross-cultural perspective to examine the changing world of kinship, the family and the local community in modern life. Writing intensive. Alternate years.

**301C/S. East Asian Medical Systems. 4 semester hours.**

Writing intensive. Every third year.

**Theatre & Dance**

**013P. Chinese Folk Dance. 1 semester hour.**

Every year.

## Economics

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Professors Jeff A. Ankrom and David M. Wishart  
Associate Professors Lawrence D. Gwinn and Frederick G. Tiffany, Chair  
Assistant Professor Marcia J. Frost

### Requirements for Major

Required in Economics

Economics 190, 300, 310, 311, 391, and four additional courses, at least two of which must be at the 300-level or higher.

Required in Related Department

Management 210 or its equivalent and Mathematics 131 or Mathematics 201 or their equivalent.

Recommended in Related Departments

The student planning graduate study in economics is strongly advised to take Mathematics 201, 202, 205, 210, and 212.

### Courses

Economics 190 is the introductory course in the discipline and is required. An appropriate score on the Math Placement Exam must be earned to enroll in Economics 190.

Courses at the 200-level apply basic analytical tools to economic problems and policy issues.

Courses in the 300 series develop theoretical and analytical tools in some depth so that more complex problems and policy issues can be considered. Prerequisites vary.

### Requirements for Minor

Economics 190 and four upper-level courses, at least two of which must be at the 300-level or higher.

### Course Listings

#### **190S. Principles of Economics. 4 semester hours.**

Introduction to basic principles of economics. Topics covered include supply and demand, marginal analysis, perfect competition, profit maximization, aggregate demand and supply, the level of employment, inflation, fiscal policy, monetary policy, and international trade. Prerequisite: Appropriate score on the Math Placement Exam. Every year.

#### **220C. Economics of Developing Areas. 4 semester hours.**

Introduction to the concepts, measures, theories, and strategies of modern economic growth and development relevant to the low-income nations of Asia, Africa, and Latin America. The course builds on the theories and models introduced in Economics 190, explores the inter-relationships between human development and economic growth, and allows each student to investigate the development experience of a particular nation. Writing intensive. Prerequisite: Economics 190. Alternate years.

**231. European Economic History. 4 semester hours.**

Examination of the evolution of capitalism in Europe from the 15th century to the present, the impact of European capitalism on economies and societies in the Middle East, Africa, Asia and the Americas, the rise and demise of centrally planned state socialist economies in Russian and the Eastern European countries, and the prospects for European economic integration. Topics presented in this course emphasize the use of principles of economics to understand historical change and the methods of empirical analysis that are commonly used by economic historians. Writing intensive. Prerequisite: Economics 190. Alternate years.

**240. American Economic History. 4 semester hours.**

Exploration of the record and cause of long-run economic growth and development of economic institutions as the American economy evolved from a lightly populated, colonial outpost in the 17th century to world dominance by the 20th century. Topics presented in this course emphasize the use of principles of economics to understand historical change and the methods of empirical analysis that are commonly used by economic historians. Writing intensive. Prerequisite: Economics 190. Alternate years.

**250. Urban and Regional Economics. 4 semester hours.**

Study of why cities exist, how they evolve and go through various stages of growth and sometimes decay, and how different economic activities are arranged within cities and regions. This course helps the student to examine critically urban economic problems such as poverty, housing, transportation, congestion, pollution and crime. Prerequisite: Economics 190. Some sections writing intensive. Every third year.

**260C. East Asian Economies. 4 semester hours.**

Study of specific problems and institutions of the East Asian economies. Topics include development, trade, and commercial policies as well as fiscal and monetary policies in the region. Prerequisites: Economics 190. Writing intensive. Alternate years.

**265. The Economics of Sports. 4 semester hours.**

This course in applied economic analysis examines the economic forces that have changed sports in recent decades. Economic models will be used to investigate such issues as why professional athletes have such large salaries, why cities use tax incentives to attract teams to their markets,

and how money affects the competitive balance of sports leagues. Prerequisite: Economics 190. Alternate years.

**275. Economies in Transition. 4 semester hours.**

This course explores the process and results of the decisions of the nation states of East Asia, the former Soviet Union, and Eastern Europe to move from centrally planned socialist economies toward market-based capitalist economies. The central focus of the course is the examination of the strategies pursued and the progress made during transition in these economies at the macro and sectoral levels, the institutions that have evolved, and the human welfare consequences of the transition process. Writing intensive. Prerequisite: Economics 190. Alternate years.

**280. Managerial Economics. 4 semester hours.**

Focus on theoretical and empirical models of business firm behavior. Prerequisites: Economics 190 and Management 210. Alternate years. The student cannot receive credit for both 280 and 310.

**290. Topics. Variable credit.**

Study of some area of current interest in economics. Open to the major and the non-major. Some sections writing intensive. Prerequisite: Economics 190. This course may be repeated for credit.

**300. Econometrics. 4 semester hours.**

Revolves around constructing and statistically testing economic models. Lectures focus on discussing methodology in economics and learning the fundamentals of regression analysis. In addition, a large portion of the course is devoted to research projects in which students use a simple computer regression package to test economic theory against empirical evidence, analyze economic policies and forecast economic variables. Writing intensive. Prerequisites: Economics 190 and Management 210 or its equivalent. Every year.

**301. Money and Banking. 4 semester hours.**

Provides a basic understanding of money and financial institutions and their impact on the economy. The following are examined: the role of financial intermediaries, the role of government in financial markets, central banking, money creation, monetary policy, pricing of financial assets, interest rate determination, mortgage markets, option markets and futures markets. Prerequisites: Economics 190 and Mathematics 120. Every year.

**310. Intermediate Microeconomic Theory. 4 semester hours.**

Detailed study of the theories of consumer behavior, production, the distribution of income and social welfare. Prerequisites: Economics 190 and Mathematics 120 or its equivalent. Every year. The student cannot receive credit for both 280 and 310.

**311. Intermediate Macroeconomic Theory. 4 semester hours.**

Detailed study of the determination of output and income, employment, and the price level. Issues examined include the causes of inflation and recession and the fundamentals of economic growth. Prerequisites: Economics 190 and Mathematics 120 or its equivalent. Every year.

**315. Labor Economics. 4 semester hours.**

Explores the determinants of the supply of and demand for labor, wages and working conditions, and the productivity of labor. It is concerned with both the microeconomic decision making of individuals, households, and firms, and the macroeconomic outcomes of their decisions. This course will explore contemporary issues relating to labor markets, including public policy debates over discrimination, affirmative action, and government regulation. Prerequisite: Economics 190. Alternate years.

**320. History of Economic Thought. 4 semester hours.**

Study of the ideas of great economists and the evolution of economic analysis. Prerequisites: Economics 190. Writing intensive. Alternate years.

**330. International Trade and Finance. 4 semester hours.**

Study of the principles governing the gains from international trade, the effects of international trade restrictions, and fluctuations in exchange rates and the impact of international trade on domestic employment and inflation. Attention will also be given to international economic institutions and their policies. Prerequisites: Economics 190 and Mathematics 120 or its equivalent. Alternate years.

**340. Public Finance. 4 semester hours.**

Examination of government revenue and expenditure policies and their consequences for the allocation of public goods, income distribution, employment and the price level. Prerequisite: Economics 190. Writing intensive. Every year.

**350. Environmental and Natural Resource Economics. 4 semester hours.**

Examines economic approaches to coping with environmental problems and natural resource scarcity. Emphasis is given to the clear definition and enforcement of property rights as a means to avoid environmental problems. Models for pricing various renewable and nonrenewable natural resources are explored. The role of population change in environmental and natural resource issues is considered. Prerequisites: Economics 190 and Mathematics 120 or its equivalent. Writing intensive. Alternate years.

**360. Industrial Organization. 4 semester hours.**

Study of theories of industry structure and performance in markets that do not meet the assumptions of perfect competition. Monopoly, monopolistic competition, and various models of oligopoly are covered. Prerequisites: Economics 280 or 310 or permission of the instructor. Writing intensive. Alternate years.

**365. Law and Economics. 4 semester hours.**

Since the early 1980s, a new field has emerged that closely connects economic analysis and legal analysis in some core areas of both the private law (property, contracts, and torts) and the public law (civil procedure and criminal law procedure), as well as constitutional law, bankruptcy law, securities regulation, and more. This course is an introduction to the scholarship associated with this new field. Prerequisite: Economics 310 or permission of the instructor. Alternate years.

**370. Mathematics for Economists. 4 semester hours.**

Study of certain methods from calculus and linear algebra and their use in economic analysis. A major goal of the course is to integrate the student's understanding of mathematics and economics. Strongly recommended for the student considering graduate study in economics or finance. Prerequisites: Economics 310 and Mathematics 131 or 201. Economics 311 recommended. Alternate years.

**390. Advanced Topics. Variable credit.**

Study at an advanced level of some topic of current interest in economics. Prerequisites: Economics 190 and permission of instructor. Some sections writing intensive. This course may be repeated for credit.

**391. Advanced Economic Theory. 4 semester hours.**

Study that broadens and deepens understanding of intermediate economic theory through the coverage of a series of advanced topics in both microeconomic and macroeconomic theory. Presentation assumes basic knowledge of both calculus and probability, thereby allowing the student to integrate mathematics with economic theory. Prerequisites: Economics 310 and 311, Management 210, Mathematics 131 or 201. Every year.

**490. Independent Study. Variable credit.**

Some sections writing intensive. Prerequisites vary. This course may be repeated for credit.

**491. Internship. Variable credit.**

Requires at least one semester of work in some capacity related to the economics profession in either the private sector or government. Over the following semester the student writes a research paper related to the work experience. Prerequisites: Economics 190, 310 and 311. Writing intensive. Every year. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA, permission of the Department Chair.

## Education

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Professor Robert P. Welker

Associate Professors Kathryn A. Calabrese, Chair, Lora L. Lawson and Lowell W. Monke  
Assistant Professors Sara A. Brannan, Stefan J. Broidy, Deborah E. Doty, and Regina A. Post  
Instructors Philip E. Fraley and Debra G. Mallonee  
Visiting Assistant Professor Marjorie A. Wuthrick

### Teacher Education Program

The Teacher Education Program is designed to permit the student to meet the licensure requirements for teaching in the State of Ohio. Students may seek licensure in Early Childhood Education, Middle Grades Education, Special Education: Intervention Specialist, Adolescent Young Adult (AYA) Education (most secondary areas of teaching) and Multi Age education for Art, Drama/Theater, Foreign Language, and Music. The student seeking licensure should contact the Education Department for advising help as early in the program of study as possible to ensure that program requirements can be met within the four undergraduate years.

The theme of the teacher education program is “Educational Leaders for Constructive Social Change.” Our mission is to integrate the ideals of moral responsibility, social consciousness, and vocational commitment into the lives of teachers in such a way that their character, competence, and community involvement establish them as leaders for constructive social change. The faculty have developed performance outcomes by which teacher education candidates are assessed beginning in the introductory courses. A complete list of performance outcomes and teacher education policies and programs are described on the education department website and in the Teacher Education Handbook, which is available from the Education Department Office and the Education Department website. Candidates pursuing teacher licensure must also successfully complete a state-approved examination prior to licensure. The examination measures the extent of professional knowledge and curriculum content for the specific areas of licensure pursued.

Performance Data for 2005-2006

Total enrollment in teacher education — 185

Total number of students newly admitted to teacher education — 80

Average number of hours required for student teaching — 300

Student teacher/faculty ratio — 5:1

Overall pass rate of Wittenberg students on the Praxis II exam — 97%

State of Ohio overall pass rate on the Praxis II exam — 95%

### Policy on Admission to the Teacher Education Program

Admission to the Teacher Education Program is selective. Any student who wishes to complete licensure requirements must apply for and be admitted to the program. To be considered for admission, the student must

1. have a cumulative GPA of at least 2.5 at the time of application,

2. demonstrate writing proficiency by earning a grade of C- or higher in English 101 or by placing out of the course,
3. demonstrate mathematics competency by earning a grade of C- or higher in Mathematics 118 (applicable to majors only; not applicable to education minors),
4. earn grades of C- or higher in Education 103 or 104, 111 or 112, 120, and for students pursuing a major in education, Education 150 and 275 or 276, and
5. display knowledge, skills, and dispositions appropriate for teaching, including a satisfactory level of competence on the 18 performance outcomes assessed in the education program..

Students pursuing a major in education must apply for admission to the Teacher Education Program no later than spring semester of the sophomore year. Students pursuing a minor in education must apply no later than fall semester of the junior year. The Education Department acts on applications for admission twice during each semester. Students denied admission may reapply once, provided that the circumstances contributing to the initial denial have been addressed.

Prior to admission to the Teacher Education Program, students may enroll only in 100- and 200-level courses. All 300- and 400-level courses require admission to the Teacher Education Program (or department approval).

### **Criteria and Procedures for Permission to Student Teach**

Only applicants who have been admitted to the Teacher Education Program may be approved to student teach. According to its mission and goals, the Education Department considers each candidate's ability to take on the challenge and honor of serving students in our schools. To make decisions on who is ready to student teach, we use the following criteria:

1. complete approximately 75% of the course work in the major and all of the required education methods courses offered prior to the student teaching term,
2. attain a cumulative GPA of at least 2.50 at the time of student teaching,
3. complete all methods courses with at least a grade of C- in each,
4. have a GPA of at least 2.75 in all education courses,
5. display knowledge, skills, and dispositions appropriate for teaching, including a satisfactory level of competence on the 18 performance outcomes assessed in the education program.

*EFFECTIVE FOR THE CLASS OF 2010*

Middle School candidates must:

- Attain a 2.50 GPA in *each* teaching/licensure field and a grade of C- or above for each course in each teaching/licensure field.

Adolescent Young Adult and Multi-Age Candidates must:

- Have a GPA of 2.50 in the teaching field and a grade of C- or above for each course in the teaching field. The teaching field includes all courses in the student's major plus subject content courses required for licensure.
- Have recommendations of the candidate's major department affirming a competent level of preparation in the teaching field according to the approved Ohio Academic Content Standards.

**No courses required for licensure can be taken pass/fail without the permission of the Education Department Chair and the Director of Teacher Licensure.**

Student teaching is scheduled during spring semester. Candidates enroll in education coursework the first five weeks of the semester and then proceed on to ten weeks of student teaching. Since the ten weeks of student teaching is a full-time load, no other coursework may be scheduled during the ten weeks of student teaching unless permission is granted by the Director of Student Teaching. In planning for spring vacation, candidates must follow the calendar of the school system in which they are assigned to student teach and plan their Spring Break in line with the school's vacation schedule. Travel to and from the student teaching site is the responsibility of the candidate..

Nontraditional internships and opportunities for student teaching abroad are available on a limited basis (e.g., American School in London). Planning for such experiences should begin early. Acceptance is selective.

**Requirements for Major**

The student may earn a major in education by completing the Education course requirements for Early Childhood Education Licensure, P-3; Middle Grades Licensure, 4-9; or Dual Licensure in Early Childhood Education, P-3 and Intervention Specialist K-12 (special education license for learners with mild/moderate education needs).

Education course requirements

Required for Early Childhood Education Licensure (P-3): 49 semester hours, Education 103 or 104, 111, 120, 150, 275, 303, 311, 327, 328, 329, 341, 345 and 495.

Required for Middle Grades Education Licensure: 44 semester hours, Education 103 or 104, 111 or 112, 120, 150, 276, 307, 312, 342, 345, 495 and two of the following: 336, 337, 338 and 339.

Required for Dual Licensure in Early Childhood Education (P-3) and Intervention Specialist / Special Education (K-12): 60 semester hours, Education 103 or 104, 111, 113, 120, 150, 275, 303, 311, 327, 328, 329, 341, 345, 430, 432, 433 and 495.

Courses from related departments required for licensure:

Eight semester hours from art/music/drama, chosen from two separate departments; Math 118; and, for those Middle Grades Education students who select mathematics as one of their teaching fields and for all Early Childhood Education students (including those pursuing Special Education licensure), Math 119.

Also, the student pursuing Middle Grades Education licensure must complete an approved program of study in two teaching fields selected from: reading and language arts, mathematics, science and social studies. (There are at least 20 semester hours required in each field.) See the Education Department for specific courses.

### **Requirements for Minor**

A student may earn a minor in education by completing at least 24 semester hours in the following courses: Education 103 or 104, 120, 307, 308, 312, 342 and one of the following: 346, 347, 348 and 349 or equivalents as approved by the department, plus either Education 112 (for secondary education) or Education 111 and 113 (for multi-age license areas).

A student seeking an AYA license (7-12) or a Multi-Age license (P-12) must complete 34 semester hours, which must include Education 312 Reading and Writing in the Content Areas, and 495 Student Teaching, 10 semester hours. Multi-Age licenses are available in art, drama/theatre, music, and foreign language (French, German or Spanish); AYA licenses are available in earth sciences (geology), life sciences (biology), language arts (English), mathematics, and integrated social studies (history). See the Education Department or the respective academic departments for specific courses in education and in the major for the respective teaching fields.

### **Requirements for Endorsement in Reading**

A license that is endorsed for reading allows a teacher to teach as a reading specialist with students in the grades specified by the license that is being endorsed. To have the Early Childhood Education license or the Special Education license endorsed for reading, the student must complete Education 150, 275, 311, 312, 345, 400 and 450. To have the Middle Grades Education license or the Secondary Education license endorsed for reading, the student must complete Education 150, 276, 311, 312, 345, 400 and 450.

### **Course Listings**

#### **103S. Sociological Perspectives in Education. 4 semester hours.**

An examination of the foundations of education and teaching as conceived through a sociological perspective. The course develops theoretical and practical perspectives by considering different models for studying and analyzing social problems and by considering cases and disputes emerging from the daily practice of teaching. More specifically, the course considers the social and institutional roles of parents, teachers, administrators, and other stakeholders in public education. Issues of class, ethnicity, and gender will be examined as they afford legal and organizational power within the institutional structure. How institutions and individuals are responsive or resistant to change is examined as well as the pressing economic and social contexts which make change imperative. Reading in the course will revolve around specific sociological studies relating to the profession of teaching and to such social issues as school violence, social mobility, and equal opportunity. The course will have a field experience and clinical component in which students will be matched with teachers and students at a Springfield City School. Through these experiences, students will have the opportunity to gather data and write brief case studies regarding specific social practices and responses. Field

experience of approximately 10 hours is required. Students seeking licensure through the teacher education program are required to take either this course or Education 104. No prerequisites. Every year.

#### **104R. Philosophical Perspectives in Education. 4 semester hours.**

An examination of the foundations of education and teaching through a philosophical perspective. The course develops theoretical and practical perspectives through the close analysis of philosophical texts and by considering cases and disputes emerging from the daily practice of teaching. More specifically, the course examines fundamental questions concerning education as a moral practice. It is guided historically and philosophically by the writings of educational theorists. The writings of Plato, Rousseau, and Dewey will be consulted among others as well as fiction and non fiction accounts that provide students a diverse and socially-specific context. The questions revolve around the ethical standards of the teaching professional and the legal and moral demands placed on practitioners as they consider the developmental needs of their students. The course provides an introduction to the politics of teaching, and practical approaches to moral education. The course has a field experience and clinical component in which students will be matched with teachers and students at a Springfield City School. Students will be required through these experiences to both determine moral and ethical issues and debate theoretical and practical approaches to solving them. Field experience of approximately 15 hours is required in grades 6-8. Students seeking licensure through the teacher education program are required to take either this course or Education 103. No prerequisites. Every year.

#### **111. Human Development and Learning Theory: Birth through Middle Childhood. 2 semester hours.**

The course focuses upon the physical, social, emotional, intellectual and moral development of children from birth through middle childhood. Emphasis is placed upon the interactions of nature and social/cultural contexts that explain the wide range of diversity of students of this age level. Family constellations will be of particular focus. The course provides an examination of human development prior to age three to acquaint the student with knowledge about children prior to their entry into formal education and provides an examination of human development through middle childhood years so students acquire an appreciation for the full range of human development related to early and middle childhood. The course is designed for students seeking licensure in either Early or Middle Childhood. Field experience of approximately 5 hours is required. No prerequisites, but concurrent registration in Education 120. Every year.

#### **112. Human Development and Learning Theory: Middle Childhood through Young Adult. 2 semester hours.**

The course focuses upon the physical, social, emotional, intellectual and moral development of children in middle childhood through early adolescence and young adulthood. Emphasis is placed upon the interactions of nature and social and cultural contexts that explain the wide range of diversity of students at this age level. The course is designed for students seeking

licensure in either Middle Childhood or Adolescence to Young Adult. Field experience of approximately five hours is required. No prerequisites, but concurrent registration in Education 120. Every year.

**113. Human Development and Learning Theory: Adolescence through Young Adult. 1 semester hour.**

The course is an extension of the content developed in Education 111 and is designed for students seeking multi-age licensure in art, drama/theater, foreign language, music, and special education. The course focuses upon the physical, social, emotional, intellectual, and moral development of the adolescent through young adult school-age population. Emphasis is placed upon interactions of nature and social/cultural contexts that explain the wide range of diversity of students. Field experience of approximately 5 hours is required. No prerequisites, but completion of Education 111 is recommended. For students who have not yet completed Education 111, concurrent registration is required. Every year.

**120. Introduction to Students with Special Needs. 2 semester hours.**

An examination of how schools and society respond to students who have special needs, including students with disabilities, students who are alienated from school, and students whose linguistic or cultural backgrounds differ from mainstream society. The course focuses on disability as the context for examining student diversity and the schools. The course provides an overview of legislative mandates relating to students with disabilities, of teacher roles for identifying and referring students, of available educational programming options, and of approaches for creating more inclusive school environments. The course challenges prospective teachers to make connections between what is known about human development and diversity and what is believed about human dignity and the purposes of American education and about what is known about current educational practices and what is possible in terms of educational vision. This course will have an Early/Middle Childhood focus when paired with Education 111 and a Middle Childhood/Adolescence focus when paired with Education 112. Field experience of 5 hours with students or adults with disabilities is required. No prerequisites, but concurrent registration in Education 111 or 112. Every year.

**150. Phonics for Reading and Writing. 4 semester hours.**

This course is an overview of how phonics fits into a strategy repertoire for decoding unknown words during reading and encoding words during spelling. The teacher knowledge base of the course focuses on the “good reader research” and the relationships among phonology (form), morphology (content), pragmatic (usage), orthography and etymology. Students can expect to study aspects of linguistics, phonetics and orthography (phonemes, morphemes, graphemes), the alphabetic principle, the developmental stages of word learning and spelling growth). All students must pass a basic competency test to show they are able to explain and give examples of key concepts necessary to teach students to use phonics, structural or morphemic analysis and contextual cues (semantics) to unlock unknown words in text. In addition, students must show they can demonstrate the process of flexible decoding that good readers use. In the teaching strategies portion of the course students will learn how to teach phonics, and other decoding

strategies, using different materials and methods, e.g. analytical vs. synthetic, explicit vs. implicit, analogy, etc. Principles of effective phonics instruction will be presented, including how to assess a student's letter knowledge. Of particular importance will be implications from research on the role phonemic awareness plays in successful reading development and how students with reading and spelling difficulties can be assessed and taught using strategies that will enable them to hear sounds and make the speech-print connection. Field experience of approximately 20 hours will be required. No prerequisites. Every year.

**275. Integrating Literature, Art, Drama, Dance and Music throughout the Early Childhood Curriculum. 4 semester hours.**

The audience for this course is prospective early childhood teachers. The goal is for preservice teachers to learn how to teach about dimensions of the human experience that support arts integration, including multiple ways of knowing, brain-based teaching and learning, creativity and creative problem solving, artistic and aesthetic development, and curriculum integration. An arts integration paradigm employed throughout the course shows potential teachers how to teach with, about, in, and through the arts. After an examination of arts integration research, the necessary knowledge base and teaching strategies needed to use the arts as tools for learning concepts and skills in science, social studies, math, and reading/language arts is studied. The role of children's literature is emphasized in units on each art form. Literature is treated as a distinct art form in its own right as well, and students can expect to do reading in all genre of literature including poetry. Special emphasis is given to literature dealing with issues of diversity. In addition, the power of print and non-print media to reveal universal themes and serve as a basis for high impact teaching and learning will be addressed. Assignments include the preparation of a portfolio of art work representing use of major media and art concepts taught in schools. Students will learn how to align lessons and strategies with the National Standards for the Arts, as well as state academic content standards. A notebook containing evidence of a knowledge base in each of the arts—appropriate for a classroom teacher—is required. Field experience of approximately 20 hours is required. Prerequisites: Education 103 or 104, Education 111/120 plus two 4-credit courses from two different areas of the arts (music, art, drama or dance). One may be taken concurrently. Every year.

**276. Integrating Literature, Art, Drama, Dance and Music throughout the Middle Grades Curriculum. 4 semester hours.**

The audience for this course is prospective middle childhood teachers. The goal is for preservice teachers to learn how to teach about dimensions of the human experience that support arts integration, including multiple ways of knowing, brain-based teaching and learning, creativity and creative problem solving, artistic and aesthetic development, and curriculum integration. An arts integration paradigm employed throughout the course shows potential teachers how to teach with, about, in and through the arts. After an examination of arts integration research, the necessary knowledge base and teaching strategies needed to use the arts as tools for learning concepts and skills in science, social studies, math, and reading/language arts is studied. The role of young adult literature is emphasized in units on each art form. Literature is treated as a distinct art form in its own right as well, and students can expect

to do reading in all genre of literature including poetry. Special emphasis is given to literature dealing with issues of diversity. In addition, the power of print and non-print media to reveal universal themes and serve as a basis for high impact teaching and learning will be addressed. Assignments include the preparation of a portfolio of art work representing use of major media and art concepts taught in schools. Students will learn how to align lessons and strategies with the National Standards for the Arts, as well as state academic content standards. A notebook containing evidence of a knowledge base in each of the arts—appropriate for a classroom teacher—is required. Field experience of approximately 20 hours is required. Prerequisites: Education 103 or 104, Education 111 /120 or 112/120 plus two 4-credit courses from two different areas of the arts (music, art, drama or dance). One may be taken concurrently.

### **303. Curriculum and Instruction in Early Childhood. 4 semester hours.**

This course explores the historical, philosophical, psychological, and social foundations of early childhood education as they relate to present day practice. Developmentally appropriate practice in program design and implementation, authentic assessment, family involvement, and the professional role of child advocate define the template applied to the exploration of a variety of early childhood programs. Course work includes attention to technology as a tool for instruction, assessment, and communication. The course examines social issues, changing views of early childhood, new findings in brain development, the critical importance of learning in the early years, and factors that impact early learning. Students use local, state and national curricular guidelines to design developmentally appropriate instruction and learning experiences and safe and healthy learning environments (e.g. childhood illnesses, communicable diseases). Students design strategies for observing, interpreting, and presenting formative and summative assessment data related to the young child's cognitive, emotional, social, and physical growth and development. The importance of family involvement including sensitivity to family structures and assistance to families in need, and professional roles (including advocacy for the needs of young children and collaboration with appropriate agencies), are stressed. In addition, procedures concerning the administration, organization, and operation of early childhood programs are addressed. Field experience of approximately 25 hours is required. Prerequisites: Admission to teacher education. Concurrent registration with Education 341. Every year.

### **307. Curriculum and Instruction for the Middle Grades. 4 semester hours.**

This course focuses on teaching and planning, and the unique curricular and instructional demands that are made on teachers in the middle school setting. Particular topics to be addressed during the course are instructional models, trends in middle school structure, classroom management, use of a variety of instructional media and technology, interdisciplinary teaching, integrating the curriculum, and use of local, state, and national curricular guidelines for designing assessment and instruction. Instructional models, knowledge of their research base, and their appropriate uses in effective middle school settings provide a heavy concentration of this course's content. Daily planning, demonstrations of lessons, and peer-teaching, as well as understanding the rationale behind pedagogical choices, afford pre-service teachers opportunities to reflect on content within and across disciplines requiring students to recognize common

threads that make integrative teaching and learning an increasingly important part of the middle school structure. Classroom management theories such as assertive discipline and democratic classrooms are examined during the course and revisited during the field experience. Also, issues of multiculturalism, parental involvement, and assessment strategies are addressed as they relate to the middle school context. Field experience of approximately 30 hours with middle grade students is required. Prerequisites: Admission teacher education. Every year.

### **308. Curriculum and Instruction for High School. 4 semester hours.**

This course focuses on teaching, planning, and the particular curricular and instructional demands of the high school setting. Other specific areas to be examined are literacy in the content areas, integration of curriculum, assessment, multiculturalism, and technology. The scope and sequence of the secondary content area curriculum provides the basis for this course. Short-range and long-term planning is thoroughly investigated and formally integrated through the examination of local, state, and national curricular guidelines, high school texts, and state-mandated testing requirements. Another major aspect of the course is literacy, especially reading and writing in the content areas, and critical listening and viewing of print and non-print media. Integration of curriculum and interdisciplinary teaching are also addressed as students cooperatively examine and then plan for and teach lessons related to their teaching field. Field experience of approximately 35 hours involving observation and teaching at the high school level grades 9-12 is required. Prerequisite: Admission to teacher education.

### **311. Developing Literacy in Early Childhood. 4 semester hours.**

This course prepares the teacher to teach reading in developmentally appropriate ways to children ages 3-8 years. The course examines reading instruction to foster reader strategies that maximize comprehension and fluency in a variety of genre and for a variety of purposes. Strategies for designing literacy-rich classrooms, routines, and materials to assist young children in using their personal knowledge of oral language for investigating the deep and surface structure of many written forms of language are explored. Curriculum design and implementation, assessment and evaluation, and family involvement are emphasized in relation to the particular needs of the young child's cognitive, social/emotional, and physical development. Course work includes attention to technology as a tool for instruction, assessment and communication. Field experience of approximately 30 hours in a primary-grade placement (grades K-3) is required. Prerequisite: Admission to teacher education, Education 303 or concurrent registration in 303. Every year.

### **312. Reading and Writing in the Content Areas. 4 semester hrs.**

This course provides preparation for teaching literacy in middle and secondary schools. The focus is on planning, selecting, and using research-based strategies for reading instruction, assessment, and evaluation of students towards fluency. Reading in content areas and development of student study skills also are emphasized. The course will present ways in which teachers can help students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate a variety of texts. In the comprehension of texts, teachers help students apply a knowledge of language structure, language conventions (e.g. spelling and punctuation), media

techniques, figurative language, and genre to create, critique, and discuss print and non-print texts. Emphasis will be given to the use of a variety of technological and informational resources (e.g. libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge. Strategies for teaching linguistically and culturally diverse students will be explored. In addition, state, and national standards in reading and language arts will be used to construct units and lessons. Field experience of approximately 30 hours in grades 6-8 is required. Prerequisite: Admission to teacher education. Education 307 or 308, or concurrent registration in Education 307 or 308.

### **327. Teaching Mathematics in Early Childhood. 2 semester hours.**

Examination of the principles, methods, and materials used to help young children develop an understanding of mathematics. Topics include early childhood curriculum based on local, state, and national curricular guidelines, the effects of developmental level on learning, the use of concrete materials, relating mathematics to the real world, teaching for problem solving, organizing instruction, assessment, individual differences in learners, technology, and current issues in mathematics education. The class will meet during the five weeks preceding student teaching and there will be several late afternoon class sessions during student teaching. Some assignments will be carried out during student teaching. Field experience of approximately 10 hours is required. Prerequisites: Permission to student teach and Math 119. Concurrent registration with student teaching is required or permission of the instructor or concurrent registration with Math 119. Every year.

### **328. Teaching Science in Early Childhood. 3 semester hours.**

An examination of the nature of science learning for young children, including scientific inquiry and discovery learning, the relationship between the physical world and the living environment, thematic learning, issues in health and fitness, and use of technology today. The course builds on the curricular design and methodology components of prerequisite education methods courses and focuses this body of knowledge and skills on the teaching of science. Specifically, local, state, and national curricular guidelines are used to design instruction and prepare a variety of methods for assessing student understanding. Instruction is also provided in selecting and using a variety of instructional media, resources, and technology specific to the field. The course includes experience and hands-on activities to promote process skills development and presents approaches for promoting positive attitudes toward science for students regardless of gender, ethnic background, or socioeconomic status. The course addresses development of safety practices in science instruction. Field experience of approximately 15 hours is required. Prerequisites: Admission to teacher education. Every year.

### **329. Teaching Social Studies in Early Childhood. 2 semester hours.**

An examination of the nature of social studies and of social studies teaching that prepares the teacher to select, integrate, and translate knowledge and methodology in social studies in the same way that it is found in the real world. The course stresses the interdisciplinary methods of teaching social sciences that are appropriate for P-3 students. Citizenship education is emphasized as one of the major themes. Local, state, and national curricular guidelines are used

to design instruction and prepare a variety of methods for assessing student understanding. Instruction is also provided in selecting and using a variety of instructional media, resources, and technology specific to the field. Also included are multi-cultural and gender perspective, problem solving, critical thinking, and application skills. Interdisciplinary activities are designed to include American heritage, people in societies, world interactions, decision making and resources, democratic processes, and citizenship rights and responsibilities. Also included are issues of community health. The class will meet during the five weeks preceding student teaching and there will be several late afternoon class sessions during student teaching. Some assignments will be carried out during student teaching. The class will meet during the five weeks preceding student teaching. Field experience of approximately 10 hours is required. Prerequisites: Permission to student teach. Concurrent registration with student teaching is required or permission of the instructor. Every year.

### **336. Teaching Language Arts in Middle Grades. 2 semester hours.**

A thorough examination and application of the various methods for teaching the language arts and adolescent literature is the foundation for this course. Interdisciplinary teaching and integration of middle school content through language arts is also an emphasis. Field experience of approximately 10 hours related to teaching language arts at the middle grades level is required. Prerequisites: Education 307 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

### **337. Teaching Mathematics in Middle Grades. 2 semester hours.**

Examination of the principles, methods, and materials used to help students develop an understanding of mathematics. Topics include middle school curricula (including local, state, and national guidelines), the use of concrete materials, relating mathematics to the real world and to other areas of the curriculum, selecting appropriate mathematical tasks, teaching for problem solving, organizing instruction (including various forms of whole-group, small-group, and individualized instruction), using oral and written discourse, using a variety of assessment tools, individual differences in learners, calculators and computers, and current issues in mathematics education. Field experience of approximately 10 hours related to teaching mathematics at the middle grades level is required. Prerequisites: Educ 307 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

### **338. Teaching Science in Middle Grades. 2 semester hours.**

An examination of the nature of science to enable students to engage in scientific inquiry and make decisions that are evidence-based and reflect a thorough understanding of the interrelationships among science, technology and society. Field experience of approximately 10 hours related to teaching science at the middle grades level is required. Prerequisites: Education 307 and permission to student teach or permission of the instructor. Concurrent registration

with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

### **339. Teaching Social Studies in Middle Grades. 2 semester hours.**

An examination of the nature of social studies and social studies teaching that enables all students to become informed citizens who are active participants in a democratic society and in an interdependent world. Field experience of a pproximately 10 hours related to teaching social studies at the middle grades level is required. Prerequisites: Educ 307 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

### **341. Including Students with Special Needs in Early Childhood Classes. 4 semester hours.**

An examination of characteristics, needs, and educational programming for students with disabilities or developmental delays and those who are gifted in early childhood (P-3) classes. The course builds on information presented in Education 120 and focuses on knowledge and skills for identifying and accommodating students with special needs in general education and inclusive settings. Specifically, the course examines characteristics of students with special needs, provides a rationale for needs-based decision making, and provides knowledge and skills concerning teacher roles on intervention assistance teams and multidisciplinary IEP planning teams, and in intervention-based evaluation procedures. Also addressed are the special rights and expectations of parents in the referral, evaluation, and intervention process and cultural factors affecting student development and parent-school relationships. The course provides knowledge and skills for designing informal assessments, for documenting student learning, for using technology to support instruction of students with special needs, for developing skills in making accommodations in curriculum and instruction in the general education class setting, and for promoting self esteem and social interactions. Skills for promoting parental involvement, collaborative problem solving, team planning, and co-teaching are also addressed, as are skills for promoting inclusive environments on a school-wide basis. Field experience of approximately 25 hours involving observing and teaching students with special needs ages 3-5 is required. Prerequisites: Admission to teacher education. Concurrent registration in Education 303. Every year.

### **342. Including Students with Special Needs in Middle and Secondary Grades. 2 semester hours.**

An examination of characteristics, needs, and educational programming for students identified with disabilities and those who are gifted in the middle or secondary grades. The course builds on information presented in Education 120 and provides prospective teachers with knowledge and skills for identifying and accommodating students with special needs in general education settings. Field experience of approximately 10 hours involving observing and teaching students with special needs at the middle grades or high school level is required. Prerequisites: Permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student

teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

**345. Assessment and Strategies for Students with Literacy Difficulties. 4 semester hours.**

Students can expect to examine recent theories and research concerning the nature of reading and language arts learning with focus on the diverse needs of learners. Structured literacy initiatives, such as state and federal programs, that ensure all children learn to read and write successfully will also be examined. In the field/clinical work, theory will be put into practice by applying principles of authentic assessment, interpretation of results, planning interest-based and strengths-focused lessons, direct and inductive instruction and ongoing evaluation of progress of learners. Students will become skilled in differentiating instruction and using high potency literacy routines during field work with individuals. For students pursuing Intervention Specialist Licensure and / or Reading Endorsement, field experience will be with students exhibiting moderate to severe reading difficulties. Field experience of approximately 25 hours consisting of individual assessment and intervention is required. Prerequisites: Admission to teacher education. Educ 311 required for Early Childhood. Educ 312 for Middle Childhood can be concurrent. Every year (fall semester).

**346. Teaching Language Arts in Secondary Schools. 2 semester hours.**

A thorough examination and application of the various methods for teaching the language arts and adolescent literature is the foundation for this course. Interdisciplinary teaching and integration of secondary school content through language arts is also an emphasis. Field experience of a pproximately 10 hours related to teaching language arts at the secondary level is required. Prerequisites: Education 307 and 308 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

**347. Teaching Mathematics in Secondary Schools. 2 semester hours.**

Examination of the principles, methods, and materials used to help students develop an understanding of mathematics. Topics include secondary school curricula (including local, state, and national curricular guidelines), the use of concrete materials, relating mathematics to the real world and to other areas of the curriculum, selecting appropriate mathematical tasks, teaching for problem solving, organizing instruction (including various forms of whole-group, small-group, and individualized instruction), using oral and written discourse, using a variety of assessment tools, individual differences, calculators and computers, and current issues in mathematics education. Field experience of approximately 10 hours related to teaching mathematics at the secondary level is required. Prerequisites: Education 307,308 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

**348. Teaching Science in Secondary Schools. 2 semester hours.**

An examination of the nature of science to enable students to engage in scientific inquiry and make decisions that are evidence-based and reflect a thorough understanding of the interrelationships among science, technology, and society. Students will identify and apply science education research findings in the teaching and learning of science. Field experience of approximately 10 hours relating to teaching science at the secondary level is required. Prerequisites: Education 307, 308 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

#### **349. Teaching Social Studies in Secondary Schools. 2 semester hours.**

An examination of the nature of social studies and social studies teaching that enables all students to become informed citizens who are active participants in a democratic society and in an interdependent world. Field experience of approximately 10 hours related to teaching social studies at the secondary level is required. Prerequisites: Education 307, 308 and permission to student teach or permission of the instructor. Concurrent registration with student teaching is required unless alternative student teaching arrangements have been approved. The class will meet during the five weeks preceding student teaching. Every year.

#### **390. Topics Course. Variable credit.**

#### **400. Conducting Research in Literacy. 2 semester hours.**

The purpose of this course is to prepare prospective reading teachers to understand and conduct research in the field of literacy. Students can expect to develop a research topic, conduct a critical review of the literature, choose and use a research methodology, organize and interpret their collected data, and write up conclusions. Through this research process preservice teachers also become skilled at learning how to help their own students do research using a variety of technologies. The course culminates in a final draft research report and a public presentation to other educators. This is the capstone course in reading endorsement sequence. Prerequisites: Education 150, 275 or 276, 311 and 312, plus 345 or permission of the instructor.

#### **430. Educating Students with Mild/Moderate Educational Needs. 4 semester hours.**

An examination of knowledge and skills for identifying, assessing, teaching, and managing elementary-level students identified as having mild/moderate cognitive, behavioral, sensory, and/or physical disabilities. Focus is on procedures for implementing a directive approach to skill instruction, promoting self regulation in learners, and designing accommodative learning environments in elementary-level settings. The course is designed for prospective teachers pursuing licensure in special education. Field experience of approximately 25 contact hours with elementary-level students with special needs is required. Prerequisites: Admission to teacher education. Education 311 and 341. Education 345 or concurrent registration in Education 345. Concurrent registration in 432 and 433. Writing Intensive. Every year.

**432. Educating Students with Mild/Moderate Educational Needs in Middle and Secondary School. 4 semester hours.**

Examination of the characteristics, needs, and educational programming for students in the middle and secondary grades identified as having mild/moderate cognitive, behavioral, sensory, and/or physical disabilities. Focus is on procedures for designing content instruction that is accommodative for students with special needs, for teaching learning strategies and self-regulated learning, and helping students plan for post-school adjustment. The course is designed for prospective teachers pursuing licensure in special education. Field experience of approximately 35 contact hours with middle or secondary-level students with special needs is required. Prerequisites: Admission to teacher education. Education 345 or concurrent registration in Education 345. Also, concurrent registration in Education 430 and 433. Writing Intensive. Every year.

**433. Skills for Collaborative Problem Solving in Special Education. 2 semester hours.**

Examination of special education teacher roles as consultant, collaborative problem solver, and co-teacher and the skills required to fulfill these roles. The course focuses also on issues and practices of inclusion, collaboration, co-teaching, conferencing, and working with families, school and community personnel. Prerequisites: Admission to teacher education. Education 345 or concurrent registration in Education 345. Also concurrent registration in Education 430 and 432. Every year.

**450. Internship for Reading Endorsement. 4 semester hours.**

A semester long internship will be arranged for each reading endorsement candidate to be in a practicum setting with a reading specialist. Students will be expected to assess and teach both individuals and small groups using a strategy repertoire acquired in previous literacy course work. A portfolio of assessment results/interpretation, lesson plans and critical reflection is required to demonstrate attainment of competencies expected of those with specialized expertise in reading instruction. Prerequisites: Educ 150, 275 or 276, 311 and 312, plus 345 or permission of the instructor.

**490. Independent Study. Variable credit.**

**492. Internship. Variable credit.**

**495. Student Teaching. 10 semester hours.**

**499. Honors Thesis/Project. Variable credit.**

## Engineering

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An engineering degree can be pursued at Wittenberg through a binary engineering program (commonly referred to as a “3-2” program). This entails studying at Wittenberg for three years, typically followed by two years at a participating school of engineering. The student who completes this program will earn a Bachelor of Arts degree from Wittenberg and bachelor’s degree in the specific field of engineering from the engineering school.

Three engineering schools currently participate in this program: the Case Institute of Technology of Case Western Reserve University, the Fu Foundation School of Engineering of Columbia University, and the School of Engineering and Applied Science of Washington University. Admission to these schools is guaranteed for students recommended by Wittenberg.

During the student’s first three years, spent in residence at Wittenberg, the student completes the courses required for a major concentration, Wittenberg’s general education requirements, and any additional basic science and mathematics courses that are needed to form the core of the engineering curriculum. The student usually selects either physics or chemistry for a major. After three years at Wittenberg, the courses required to complete the program in engineering are taken in residence at the engineering school.

In addition to the binary programs, there are other options for the student who wishes to go into engineering. These include informal arrangements with other schools that closely resemble the binary programs and graduate work in engineering after completion of the bachelor’s degree at Wittenberg.

Courses required by the schools of engineering include integral and differential calculus, differential equations, the calculus-based introductory physics courses, the introductory chemistry courses, and introductory computer science. Certain areas of engineering have additional requirements that may be satisfied by courses offered at Wittenberg.

Additional information about this program may be obtained from the Office of Admission.

## English

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Professors Robert L. Davis, Kent H. Dixon, Mimi S. Dixon, Robin L. Inboden, Chair, and Mary Ellen Jones

Associate Professors Lori Askeland, Ty Buckman, D. Scot Hinson, Rick Incorvati, Michael McClelland, Cynthia Richards, and Carmiele Wilkerson

Assistant Professors D'Arcy Fallon and J. Fitzpatrick Smith

### Requirements for Major

The major in English requires 37 semester hours of work distributed as follows:

- Four hours in English 170H, 180A, or 190A/C
- Twelve hours in English 200, English 280A, and English 290A
- Twenty hours at the 300 level: at least four of those credits must deal with literature written before 1900; no more than eight of these credits may be in courses **not** primarily based on analyzing literature, such as courses numbered in the 320s and 340s.
- One semester hour in English 405: Senior Exercises
- Students who complete eight credits in English 321 and/or 322 may also apply for English 403: Special Projects in Creative Writing. Successful completion of English 403 in addition to the English major will earn the student a Special Certificate in Creative Writing in addition to the English major.

### English Major with Honors

A student who has completed five English courses (including 200, 280, 290) and who maintains a GPA of at least 3.50 may submit an honors thesis proposal to the department for approval; if the project is approved, the student may enroll in English 499 senior year and complete supervised individual research. The completed thesis must meet departmental standards for honors. Work may be distributed over two semesters.

### Requirements for Minor

#### General English Minor

At least 20 semester hours: English 200, 280, 290, and two other literature courses at the 300-level or above. Declaration must be made by the end of spring semester of the junior year.

#### Journalism Minor

The journalism minor consists of 20 semester hours, including 12 hours in three required courses: English 241, Communication 290S, and either English 320 or English 321. The remaining elective course may be chosen from among English 244, English 320 or 321, Art 241A Introduction to Photography, Communication 351 Media Law, and English 492 or Communication 491 Internship. At least two courses should be numbered 300 or higher. Senior minors will also submit a portfolio of their journalistic work with a brief reflective essay.

#### Creative Writing Minor

The creative writing minor consists of 20 semester hours distributed as follows: English 240 Beginning Creative Writing is required of all minors. The remaining 16 hours should be distributed among other intermediate and advanced creative writing courses such as English 340, 341, 342, 343, 403, and Theatre and Dance 240.

#### Certification for Teaching in English

Students interested in pursuing a course of study leading to a license to teach English should contact their adviser or the Education department for specific requirements.

### Course Listings

#### **100. Introduction to Expository Writing and the Culture of the United States for Non-native Speakers of English. 4 semester hours.**

Preparation to take English 101 and to enter into academic life at the college level in the United States. Writing intensive. Every year.

#### **101E. Expository Writing. 4 semester hours.**

Practice in the basic principles of expository writing. A prerequisite to all other English courses except English 100. To meet the general education writing goal, each student must complete this course with a grade of C- or above. Should be taken in the first year of college. Writing intensive. Every year.

NOTE: The student may enroll in the following courses only after completing English 101 or demonstrating entry-level competence in writing.

#### **170. Western Cultural Traditions. 4 semester hours.**

Historical perspective on Western culture through its literature. Individual sections may concentrate on one of the following: Classical Greek or Roman, Biblical, American, European or post-colonial traditions. These courses ground the study of literature in historical context. Check master schedule to see whether individual sections are approved to meet Arts or Western Historical Perspectives goals. Writing intensive. This course may be repeated for credit. Every third year.

#### **180A. Themes and Traditions in Literature. 4 semester hours.**

This introductory course designed to fulfill the general education goal in the arts is devoted to the study of literary works connected by a common aesthetic or cultural theme, e.g., Medicine and Literature, Women in Literature. Intended primarily for the first- or second-year student, the course is to help students reflect on the nature of literary experience and the methods of literary analysis. Writing and discussion devoted to the close analysis of texts are central parts of the course. Writing intensive. Every year. This course may be repeated for credit.

#### **190A/C. Topics in Non-Western Culture. 4 semester hours.**

Study of significant books and other art forms from non-Western societies, e.g., Afro-Caribbean Literature.

**200. Introduction to Literary Studies. 4 semester hours.**

Introduction to the discipline and methodology of literary study. Designed to refine skills in critical reading and writing, to build a vocabulary of analytical terms and concepts, to raise central questions of literary theory, to introduce a variety of critical approaches, and to give familiarity with the materials and methods of literary research. Readings vary in different sections. Required of the English major and minor. Writing intensive. Every year.

**240. Creative Writing. 4 semester hours.**

Beginning course in creative writing — fiction, poetry and drama. The rudiments and beyond. First-year students by permission of instructor. Prerequisite: English 101. This course is a prerequisite to all advanced creating writing courses. Writing intensive. Every year.

**241. Beginning Journalism. 4 semester hours.**

Introduction to the concepts and concerns of the practicing journalist, with primary emphasis on news writing and secondary emphasis on beginning copy-editing skills. Students discuss such topics as freedom of the press, rights and responsibilities, and the post-Watergate press, and are expected to write for the weekly student newspaper. Prerequisite: English 101. Writing intensive. Every year.

**242. Writing and Peer-editing. 4 semester hours.**

Practice in writing and editing a variety of nonfiction forms, with focus on the personal essay; discussion of the writing process and reader response; emphasis on style, rhetorical strategy and revision. This intermediate writing course, designed chiefly to prepare writing tutors, includes a practicum. By permission of instructor only. Prerequisite: English 101. Writing intensive. Every year.

**243. Business Writing. 4 semester hours.**

This course focuses on writing skills for professional situations, including conventional formats for letters, memos, and formal reports. Also looks at use of conventional structures for typical documents such as brochures, resumés, and proposals. Emphasis on peer critique, editing, and revision. Prerequisite: English 101E. Writing intensive. Alternate years.

**244. Opinion Writing. 4 semester hours.**

Intermediate course with emphasis on journalistic opinion writing such as editorials, commentaries, columns, and reviews. Reading will include examples of such writing; students will practice writing, critiquing, revising, and editing skills. Prerequisite: English 101E and English 241. Writing intensive.

**245. Writing for Teachers. 4 semester hours.**

An intermediate course in composition for prospective teachers. Students will develop their own writing, study key issues in composition and assessment theory, and review the history of writing instruction. The course will also give students hands-on experience in the day-to-day work of a writing class: from designing assignments to teaching the writing process, from understanding grammar to managing the paper load, from using computers to responding to student drafts. English 245 provides an integrative approach to the teaching of writing: students will study composition not as an isolated skill but as a crucial component in a complex process of literacy, a process that includes active listening, critical reading and effective speech. Writing intensive. Fall semester odd-numbered years.

**280A. British Survey I. 4 semester hours.**

Study of Anglo-Saxon, Medieval, Renaissance, Restoration and early 18th-century British literature, emphasizing Beowulf, Chaucer, Spenser, Marlowe, Shakespeare, Milton and Pope. Every year.

**290A. American Literary Traditions. 4 semester hours.**

Study of a historically broad selection of important American texts representing the racial, gender, and generic diversity of American literature focused on an overarching theme (journeys, the gothic, identity formation, difference, etc.). Prerequisite: English 170H, 180A, or 190A/C; English 200 recommended. Writing intensive. Every year.

NOTE: At least one introductory literature course or junior standing is prerequisite for the following upper-level literature courses. For English majors, English 200 is prerequisite and at least one early survey is recommended for those enrolling in courses at the 300 level and above.

**302. British Survey II. 4 semester hours.**

Study of major Romantic and Victorian poets and prose writers and selected early 20th-century authors. May include Blake, Wordsworth, Keats, Browning, Tennyson, Arnold, Yeats, Joyce, Eliot, Woolf and others. Prerequisite: English 280A. Every third year.

**305. Studies in Medieval Literature and Culture. Every third year.**

**306. Studies in Renaissance Literature and Culture. Alternate years.**

**307. Studies in Restoration and Eighteenth-Century Literature and Culture. Alternate years.**

**308. Studies in Romantic Literature and Culture. Alternate years.**

**309. Studies in Victorian Literature and Culture. Alternate years.**

**310. Studies in Twentieth-Century Literature and Culture. Alternate years.**

**311. Studies in American Renaissance. 4 semester hours.**

Study of representative works from the period of America's literary emergence, 1836-1865. Includes Emerson, Thoreau, Whitman, Douglass, Jacobs, Hawthorne, Poe, Melville and Dickinson. Writing intensive. Alternate years.

**313. Studies in African American Literature. 4 semester hours.**

Study of various traditions of African American writing. Individual sections may focus on the writing of African American women, the 20th-century novel, or other themes, forms, or historical developments. Writing intensive.

**315. Studies in the Novel. 4 semester hours.**

Study of the British or American novel. Individual sections of this course may focus on a theme or a historical period, for example, The Rise of the Novel, The Contemporary American Novel, or Romance and Realism in the Novel. This course may be repeated for credit.

**318A. Women in Literature I. 4 semester hours.**

Study of writing by and about women, mostly in English, with some works in translation. Begins with the medieval period and extends to 1816. May include works by Marie de France, Margery Kempe, Christine de Pizan, Elizabeth I, Mary Wroth, Aphra Behn, Fanny Burney, Mary Wollstonecraft and Jane Austen. Women's Studies credit. Writing intensive. Alternate years.

**319A. Women in Literature II. 4 semester hours.**

Study of writing by women from 1816 to the contemporary period. May include works by Mary Shelley, Linda Brent, the Brontes, Emily Dickinson, Elizabeth Barrett Browning, George Eliot, Virginia Woolf, Sylvia Plath and Toni Morrison. Women's Studies credit. Writing intensive. Alternate years.

**320. Advanced News Writing. 4 semester hours.**

This course builds on basic journalistic skills by exploring advanced techniques in writing, editing, reporting, layout, investigation, research, and conducting interviews. Emphasis on workshop critiques, editing, and revision. Prerequisite: English 241. Writing intensive. Alternate years.

**321. Advanced Feature Writing. 4 semester hours.**

The course offers practice in writing feature stories for newspapers and magazines. Types of stories might include profiles, human-interest stories, lifestyle and travel stories, etc. Emphasis

on workshop critiques, editing, and revision. Prerequisite: English 241. Writing intensive. Alternate years.

**325. Advanced Expository Writing. 4 semester hours.**

This upper-level course in writing offers instruction about technical, scientific and professional communication. Students will be required to write extensively, learn to be better critics of other people's writing, improve presentation and communication skills, and learn to plan, research, and write with efficiency and effectiveness for professional settings. May be offered with different emphases, such as technical writing, business writing, etc. Writing intensive. Alternate years.

**327. Advanced Rhetoric and Grammar. 4 semester hours.**

This course extends students' understanding of general composition; rhetorical strategies for reading and writing; the purpose of grammar use in the composing process; the manner in which language changes as a result of social, political, and cultural influences; and the ways Americans use the English language to promote change and progress through perspectives of American rhetoric. Fall semester even-numbered years.

**330. Major Author. 4 semester hours.**

Intensive study of a major author from the Anglo-American tradition, e.g., Chaucer, George Eliot, Hemingway. Emphasizes the scope and diversity of the canon and illustrates the author's change, growth and development seen in representative works. Writing intensive. Alternate years.

**331A. Shakespeare. 4 semester hours.**

Overview of Shakespeare's canon and development by looking at his work in Renaissance and contemporary contexts, emphasizing both textual study and theatrical performance. Writing intensive. Alternate years.

**332. Studies in Drama. 4 semester hours.**

Study of various periods or genres of British, American, or world drama, e.g., Tragedy, Development of American Drama, Early Modern Drama. Writing intensive.

**340. Advanced Fiction Writing. 4 semester hours.**

Extending skills learned in English 240 by focusing on the writing of fiction. Class activities will include reading and discussing the narrative strategies and techniques of contemporary fiction as well as extensive workshop critiques of students' own stories. Emphasis on dramatic structure and conflict, dialogue, and other important matters of craft. Prerequisite: English 240. Writing intensive. Every year.

**341. Advanced Poetry Writing. 4 semester hours.**

Extending skills learned in English 240 by focusing on the writing of poetry. Class activities will include reading and discussing the strategies and techniques of contemporary poetry as well as extensive workshop critiques of students' own poems. Emphasis on language, lineation, figural speech, and other important matters of craft. Prerequisite: English 240. Writing intensive. Every year.

**342. Advanced Creative Non-Fiction. 4 semester hours.**

Extending skills learned in English 240 by focusing on the writing of creative non-fiction. Class activities will include reading and discussing the forms and techniques of contemporary non-fiction as well as extensive workshop critiques of students' own essays. Emphasis on defining subject and point of view, narrative technique, and other important matters of craft. Prerequisite: English 240. Writing intensive. Alternate years.

**343. Advanced Screenwriting. 4 semester hours.**

Extending skills learned in English 240 by focusing on dramatic writing for the screen. Class activities will include reading and discussing the format and structure of screenplays as well as extensive workshop critiques of students' own work. Emphasis on dramatic structure, dialogue, visual narrative, and other important matters of craft. Prerequisite: English 240; Theatre/Dance 240 strongly recommended. Writing intensive. Alternate years.

**380. Topics in English. 4 semester hours.**

Specified study of a field of literature or language as described in the master schedule each term, e.g., Romance; Heroism and Consciousness; or Westward Ho! Literature of the American West. Most sections are writing intensive. This course may be repeated for credit.

**403. Advanced Projects in Creative Writing. 4 semester hours.**

A cross-generic, selective writing workshop for students who have completed at least two advanced creative writing courses and have been selected by a faculty panel based on a portfolio of work. Students who complete the workshop successfully in addition to their English major will earn a Special Certificate in Creative Writing.

**405. Senior Exercises. 1 semester hour.**

A suite of interconnected activities demonstrating understanding of and reflection on the learning goals of the English major. Includes oral presentation at the Senior Symposium, the written comprehensive examination, and a brief reflective response paper. Required of and open to senior English majors only.

**490. Independent Study. 2-4 semester hours.**

Individual project in language or literature as arranged by the student with the supervising professor and the Chair. A maximum of four semester hours in 490 or 492 may count toward the English major. May be writing intensive. Every year. This course may be repeated for credit.

**492. Internship. 2-4 semester hours.**

Supervised learning-work experience at various on- or off-campus sites generally taken the senior year. Involves a written project, a journal, or other assignments. A maximum of four semester hours of 490 or 492 may count toward the English major. May be writing intensive. Every year. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable Credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Environmental Studies

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Professor John Ritter (Geology), Director

### Requirements for Minor

The Environmental Studies minor consists of a minimum of 20 semester hours distributed along concentrated tracks to insure coherence and depth of study related to the environment. Students may choose from the following tracks of study: policy and management, earth sciences, and life sciences. Each track is comprised of five course levels:

Level 1: Introductory core course

Level 2: Introductory topical course

Level 3: Advanced topical or methods course

Level 4: Geographic Information Systems course

Level 5: Applications course through independent study or internship

Within each level, students select one course. To insure breadth of study, at least 16 semester hour of course work beyond the core course will be from outside the student's major department.

### Environmental Studies Minor Tracks

#### *Policy and Management* (20 semester hours)

Level 1: One course from Environmental Studies 110 or Geography 120S (4 semester hours)

Level 2: One course from Geography 230S, Geography 292S, Political Science 221S, or Political Science 223 (4 semester hours)

Level 3: One course from Political Science 320, Political Science 321, or Economics 350 (4 semester hours)

Level 4: One course from Geography 330, Geography 390, or Geology 291 (2-5 semester hours)

Level 5: Environmental Studies 490 or 491 (2-4 semester hours)

#### *Earth Sciences* (20 semester hours)

Level 1: One course from Environmental Studies 120, Geography 220N, Geology 110N, Geology 111N, Geology 112N, Geology 113N, Geology 150N, or Geology 160N (4-5 semester hours)

Level 2: One course from Geology 240, Geology 290N, Geography 222B, or Marine Science 200 (4-5 semester hours)

Level 3: One course from Geology 315 or Geography 305 (4-5 semester hours)

Level 4: One course from Geography 390 or Geology 291 (2-4 semester hours)

Level 5: Environmental Studies 490 or 491 (2-4 semester)

#### *Life Sciences* (20 semester hours)

Level 1: One course from Biology 130B, Biology 131N, Biology 141N, Biology 142N, Biology 143N, Biology 180B, or Environmental Studies 130 (4 semester hours)

Level 2: One course from Biology 232, Biology 236, Biology 238, Biology 243, Biology 247, Biology 248B, Biology 249B, or Marine Science 200 (4-5 semester hours)

Level 3: One course from Biology 341, Biology 342, or Biology 346 (5 semester hours)

Level 4: One course from Geography 390 or Geology 291 (2-4 semester hours)

Level 5: Environmental Studies 490 or 491 (2-4 semester hours)

## **Course Listings**

### **110. Environmental Topics in Policy and Management. 4 semester hours.**

Study of selected issues or problems related to environmental policy and management. Topics covered vary according to disciplinary interests of the instructor or current environmental problems or issues. Offered subject to demand and availability of instructor.

### **120. Environmental Topics in the Earth Sciences. 4 semester hours.**

Study of selected issues or problems related to the earth sciences. Topics covered vary according to disciplinary interests of the instructor or current environmental problems or issues. Offered subject to demand and availability of instructor.

### **130. Environmental Topics in the Life Sciences. 4 semester hours.**

Study of selected issues or problems related to the life sciences. Topics covered vary according to disciplinary interests of the instructor or current environmental problems or issues. Offered subject to demand and availability of instructor.

### **490. Independent Study. 1-4 semester hours.**

Individual research on a specialized topic or problem with an emphasis on the environment. Requires permission of the director of the Environmental Studies Program and the supervising faculty member. Open to only the Environmental Studies minor. This course may be repeated for credit.

### **491. Internship. 1-4 semester hours.**

Work-study opportunity to experience the multidisciplinary nature of practical environmental problems, to relate course material to these problems, and to observe decision-making processes associated with their solution. Requires permission of the director of the Environmental Studies Program and the supervising faculty member. Open to only Environmental Studies minors. This course may be repeated for credit.

## **Approved Courses for the Minor**

Biology 130B The Botanical World

Biology 131N Woody Plants of the Natural and Urban Environments

Biology 141N Introduction to Marine Biology

Biology 142N Ecological Biology and Environmental Issues  
Biology 143N Cave Ecology  
Biology 180B Concepts in Biology: Energy and Resources in Biology  
Biology 232 Mammalian Ecology  
Biology 236 Local Flora  
Biology 238 Entomology  
Biology 243 Cave Ecology  
Biology 247 Marine Ecology  
Biology 248B Comparative Communities - Bahamas  
Biology 249B Comparative Communities - Northern Forests  
Biology 341 Limnology  
Biology 342 Stream Ecology  
Biology 346 Ecology

Economics 350 Environmental and Natural Resource Economics

Environmental Studies 110 Topics in Environmental Policy and Management  
Environmental Studies 120 Environmental Topics in the Earth Sciences  
Environmental Studies 130 Environmental Topics in the Life Sciences  
Environmental Studies 490 Independent Study  
Environmental Studies 491 Internship

Geography 120S: Human Ecology  
Geography 220N Physical Geography  
Geography 222B Weather and Climate  
Geography 230S Urban Geography  
Geography 292S Population Geography (= Sociology 292S)  
Geography 305 Air Photo & Map Interpretation  
Geography 330 Applied Urban  
Geography 390 Geographical Information Systems

Geology 110B Introductory Geology  
Geology 111B Volcanoes and Earthquakes  
Geology 112B Hydrologic Cycle  
Geology 113B Ohio Geology  
Geology 150B Physical Geology  
Geology 160B Environmental Geology  
Geology 240 Process Geomorphology  
Geology 290N Hazard Mitigation: Volcanoes and Earthquakes  
Geology 291 Spatial Analysis in the Natural Sciences  
Geology 315 Watershed Hydrology

Marine Science 200M Oceanography

Political Science 221S State and Local Government  
Political Science 223 Introduction to Local Government Administration

Political Science 320 Public Administration  
Political Science 321 Public Policy

### **Recommended Electives**

Chemistry 201 Introduction to Organic Chemistry  
Chemistry 281 Analytical Chemistry  
Communication 190 Public Speaking  
Computer Science 150Q Computer Programming I  
English 241 Beginning Journalism  
English 243 Business Writing  
Geography 304 Cartography  
Mathematics 127Q Introductory Statistics  
Mathematics 227Q Data Analysis

## Geography

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Professors Ralph Lenz, Chair, and Olga L. Medvedkov  
Instructor Andrew Scholl

### Requirements for Major

A minimum of 32 geography semester hours, which must include Geography 101, 310, and either 304 or 305. More than one Geography 250 may be counted toward the major. Students may choose an Environmental, Urban Planning, or GIS track within the major. Curricula for each are listed below.

#### Environmental:

Geography 120, 220, 222, 305 and a statistics course. Recommended cognate courses include Biology 142 and 346, Geology 220, 240 and 290.

#### GIS:

Geography 220, 230, 290, 304, 305, 390 and a statistics course.

#### Urban Planning:

Geography 230, 330, 305, 390, 491 and statistics. Recommended courses are Urban Studies 171, Political Science 221 and 222, Economics 250, Sociology 296 and Geology 220. Geography majors may also design a regional emphasis in Third World Development, Latin America, Southeast Asia, or the Russian Realm in consultation with their adviser.

### Requirements for Minor

Three minor tracks are available, each requiring 20 semester hours in geography.

#### General/Regional:

Geography 101, 120 or 220 or 222, 230 or 240 or 292, 250 and an elective.

#### Environmental:

Geography 101, 120, 220, 222 and 305.

#### Urban Planning:

Geography 101, 230, 330, 395 or 390, and 491.

### Course Listings

#### 101S. Cultural Geography 4 semester hours.

Introduction to spatial analysis of interactions between people and the land in selected cultural environments. Every year.

**120S. Human Ecology. 4 semester hours.**

Human population and resource use and how they impact the environment. Every year.

**220N. Physical Geography. 4 semester hours.**

Analysis of the genetic, distributional and functional interrelationships of climate, landforms, soils, natural vegetation, and surface and ground water. Prerequisite: A score of 22 on the Math Placement Exam. Every year.

**222B. Weather and Climate. 5 semester hours.**

Atmospheric systems and their effect on climate patterns. Lab course. Prerequisite: A score of 22 on the Math Placement Exam. Every year.

**230S. Urban Geography. 4 semester hours.**

Cities studied in terms of their changing spatial patterns and functions. American cities are emphasized. Prerequisite: A score of 22 on the Math Placement Exam. Every year.

**240S. Economic Geography. 4 semester hours.**

Location of economic activities and their spatial relationships and locational impacts. Writing intensive.

**250. Regional Geography. 2 or 4 semester hours.**

Detailed spatial analysis of cultural, physical, economic and urban patterns in a region. Regions to be studied are announced each time the course is offered; examples are Third World Development, Africa, Middle America, Russia and Central Eurasia, East Asia, Southeast Asia, and Globalization. Most sections are writing intensive. Every year. This course may be repeated with a different region for credit.

**280. Topics. 2 or 4 semester hours.**

Courses on geographical topics of special interest not covered by regular course offerings. Prerequisites vary. Alternate years. This course may be repeated for credit.

**290. Business Geographics. 4 semester hours.**

Spatial techniques for marketing analysis using computer mapping.

**292S. Population Geography. 4 semester hours.**

Theories and problems of population growth and distribution on a global and regional scale. Alternate years.

**304. Cartography. 4 semester hours.**

Elements of map-making. Orientation is toward computer map production. Prerequisite: Geography 101 and 290 or permission of the instructor.

**305. Air Photo and Map Interpretation. 5 semester hours.**

Geographic identification and analysis of natural and cultural features of the environment on maps and on remotely sensed images. Lab course. Prerequisites: A score of 22 on the Math Placement Exam and a 200-level course in geography, biology or geology. Alternate years.

**310. Research Methods. 2 semester hours.**

Gathering and spatial analysis of data. Prerequisites: A score of 22 on the Math Placement Exam, Geography 101 and 220, 230, 240, or 292. Alternate years.

**330. Applied Urban. 2 or 4 semester hours.**

Advanced urban analysis. May focus on data acquisition and presentation or on methods of city planning. Prerequisite: Geography 230. Writing intensive. Alternate years.

**380. Topics. 2 or 4 semester hours.**

Courses on topics related to recent geographical research and investigation. Prerequisite: Geography 101 and/or a related geography course. Some sections are writing intensive. Offered occasionally.

**390. Geographical Information Systems. 5 semester hours.**

GIS is a spatial analysis lab course involving database management, digitizing and multilayer computer mapping. Prerequisite: Geography 230, 290, or 304. Every year.

**490. Independent Study. 2-4 semester hours.**

Research by majors or minors on a problem selected by the student in prior consultation with the instructor. Prerequisite: a 200-level geography course. Writing intensive. Every year. This course may be repeated for credit.

**491. Internship. 2-4 semester hours.**

Work-study experience in an urban governmental or social agency. Prerequisite: A 200-level geography course. Every year. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Geology

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Professors Kenneth W. Bladh and John B. Ritter, Chair  
Associate Professors Katherine L. Bladh and Michael J. Zaleha

### **Requirements for Major**

Because of the diversity of career opportunities, as well as individual student interest in the geological sciences, a student majoring in geology can elect either of two degrees: a Bachelor of Arts or a Bachelor of Science. The Bachelor of Science is for a student who eventually intends to pursue a career as a geologist, usually after graduate study. The courses required for the Bachelor of Science are those that a student typically needs for acceptance into a graduate program in geology, as well as those suggested by the American Institute of Professional Geologists. A student electing the Bachelor of Arts may wish to combine geology with expertise in another discipline (major) or plan a career in a field in which geological knowledge would be useful, law or environmental science, for example.

### **Requirements for Major (B.A.)**

Required in Geology

Geology 150, or Geol 160 and 151, or one course from the Geol 110 Series (110-115) and 151, Geol 230, 240, 260, 340, and 492, and a minimum of 6 additional semester hours in geology, of which three may be Geol 470, or five may be from a summer field course, or four from an internship or independent study. It is strongly recommended that students regularly seek the advice of their faculty adviser concerning course selection and program planning.

Required in Related Departments

Chemistry 121.

### **Requirements for Major (B.S.)**

Required in Geology

Geology 150, or Geol 160 and 151, or one course from the Geol 110 Series (110-115) and 151, Geol 230, 240, 260, 320, 340, 411, 412, and 492, and three additional semester hours in geology at the 400 level.

Required in Related Departments

Chemistry 121, a minimum of 15 semester hours in biology (from Biol 170 and 180 and higher-level courses), chemistry (from Chem 162 and higher-level courses), or physics (from Phys 200 and higher-level courses), and eight semester hours of college level mathematics (Math 131 or 201, 127 or 227, and higher-level courses) or computer science (Comp 150 and higher-level courses). It is strongly recommended that students regularly seek advice of their faculty adviser concerning course selection and program planning .

Recommended Courses (Either Degree)

Recommended in Geology

Additional courses in the department. A summer field course conducted by one of many universities is strongly recommended. Credit so gained may count toward the Wittenberg degree, and three to five semester hours may count toward the geology major.

#### Recommended in Other Departments

Courses in computer programming, statistics, technical writing, and foreign language are recommended strongly. For interdisciplinary fields such as geophysics, geochemistry, hydrogeology, oceanography, and the environmental sciences, additional courses in the Departments of Mathematics and Computer Science, Physics, or Chemistry or the Environmental Studies and Marine Science programs.

#### **Requirements for Major in Earth Science**

An interdisciplinary program in earth science was established to meet the needs of the student seeking certification to teach the subject in high school. The program stresses a broad scientific background with emphasis in geology. The minimum requirements appear below:

#### Required in Geology

Geology 150, or Geol 160 and 151, or one course from the Geol 110 Series (110-115) and 151, Geol 230, 240, 260, 315, 340, and 492.

#### Required in Education

A minor in Education. Students should consult the Department of Geology and the Department of Education to plan a complete program that meets the Ohio licensure standards.

#### Required in Other Departments

Biology 180, Chemistry 121, Physics 107: Astronomy, Physics 200: Mechanics and Waves, Geography 222: Weather and Climate, and a course in statistics (Math 127 or 227, Psyc 107, or Mgt 210) .

#### Certification for Teaching in Earth Science

Students interested in pursuing a course of study leading to a license to teach earth science should contact their adviser or the Education Department for specific requirements.

#### **Requirements for Minor**

Geology 150, or Geol 160 and 151, or one course from the Geol 110 Series (110-115) and 151 plus a minimum of 15 additional semester hours in geology, chosen in consultation with and approved by a Geology faculty adviser. The student must demonstrate the relevance of the courses elected to the design of the overall curricular program.

#### Suggestions for Environmental Focus

A student who plans to pursue a career in environmental studies should take Geol 150 Physical Geology or Geol 160 Environmental Geology, Geol 291 Spatial Analysis in the Natural Sciences, and Geol 315 Watershed Hydrology. A student seeking a more scientific program in environmental studies should consult with the Geology Department Chair or other Geology faculty about additional courses and a possible major or minor in geology with an environmental focus.

### **Related Areas of Study**

Students interested in Geology may also have interests in interdisciplinary programs that would complement or focus their study, including Computational Science, Environmental Studies, and Marine Science, and, as cognates in their degree programs, including Biology and Geography.

### **Course Listings**

**Geology 110 Series:** The Geology 110 series is a series of introductory courses in physical geology that address disciplinary or topical interests of the instructors teaching them or current issues of interest to faculty or students. These courses are intended for the non-science student. Any one of these courses will count as credit toward the major and serve as prerequisite for upper level courses with the successful completion of Geology 151 (Physical Geology Lab Practicum).

#### **110B. Introductory Geology. 4 semester hours.**

Intended for the non-science student. Emphasis on concepts and methodology of the science of geology and its application to problems of human concern about the earth. A score of 22 on the Math Placement Exam is strongly recommended. Every year.

#### **111B. Volcanoes and Earthquakes. 4 semester hours.**

This course focuses on the geology of volcanic eruptions and earthquakes. A geologic understanding of these hazards, by means of class study of such topics as volcanic eruption products and how the type of ground beneath buildings affects the severity of earthquake shaking, allows educated citizens to make informed decisions that can lessen damage and loss of life caused by these geologic hazards. A score of 22 of the Math Placement Exam is strongly recommended. Every year.

#### **112B. The Hydrologic Cycle. 4 semester hours.**

Intended for the non-science student. Study of concepts and methodology related to the hydrologic cycle, the role of water in shaping Earth's surface and shallow subsurface, and its significance to humans and the environment. A minimum score of 22 on the Math Placement Exam is strongly recommended. Every year.

#### **113B. Ohio Geology. 4 semester hours.**

Intended for the non-science student. Treats the geologic history of Ohio, from ancient oceans, rivers, and swamps preserved in sedimentary rocks, to massive glaciers that sculpted the landscape. Every year.

#### **114B. Geology of the National Parks. 4 semester hours.**

Intended for the non-science student. Focuses on understanding geologic processes and interpreting geologic history through case studies of several National Parks. Math Placement

score of 22 or above strongly recommended. Offered subject to demand and availability of an instructor .

**115B. Topics in Physical Geology. 4 semester hours.**

Intended for the non-science student. Study of selected topics related to physical geology. Topics covered vary according to disciplinary interests of the instructor or current issues in physical geology. Offered subject to demand and availability of an instructor.

**150B. Physical Geology. 5 semester hours.**

Treatment of geologic processes acting on and within the earth and the physical laws that govern them. Intended for science and geology students and anyone else interested in a more comprehensive treatment of the subject. A score of 22 on the Math Placement Exam is strongly recommended. Every year.

**151. Physical Geology Lab Practicum. 1 semester hour.**

Laboratory portion of Geology 150. Available for students who have completed a course in the Geology 110 series (Geology 110-115) and wish to take advanced geology courses or major in Geology or Earth Science. Students who have completed Geology 160 and wish to major in Geology or Earth Science are also required to take this course. Prerequisites: Geology 160 or one course from the Geology 110 Series, and permission of the Department Chair. A score of 22 on the Math Placement Exam is strongly recommended. Will meet for one 3-hour lab per week. Offered subject to demand and availability of an instructor .

**160. Environmental Geology. 5 semester hours.**

Introduction to applied geology for science and non-science students. The geologic basis for natural processes that are hazardous to humans and cause environmental problems associated with use of the natural or modified environment is discussed. Topics include flooding, mass wasting, soil erosion, water supply use, and pollution and waste disposal. Every year.

**Note:** Students may not enroll in more than one of the following introductory geology courses: Geol 110-115, Geol 150, or Geol 160. Any one of these courses may serve as an introductory course for the major or as a prerequisite for upper-level courses, but for those students who have taken Geol 110-115 or 160 and intend to major, Geol 151, a one credit lab experience, is required.

**230. Mineralogy and Optical Mineralogy. 5 semester hours.**

Study of the common minerals, in hand-sample and through the polarizing light microscope, with emphasis on mineral identification in rock classification and interpretation of the origin of rocks. The course offers students an introduction to a hands-on technique used in geology for the gathering of mineral and rock data (the use of polarizing microscope). Prerequisites: Geology 150 (Physical Geology), or Geology 110 (Introductory Geology). Alternate years.

**240. Process Geomorphology. 5 semester hours.**

Study of the origin and evolution of earth surface processes and their associated landforms. Topographic map and air photo interpretation and field trips illustrate process-form relationships as well as demonstrate techniques used by geomorphologists to analyze these relationships. Prerequisites: Geology 150 and 210 or permission of instructor. Alternate years.

**260. Sedimentology. 5 semester hours.**

The study of sediments and sedimentary rocks. Comprehensive treatment of sedimentary processes, modern environments where those processes operate, and application to the interpretation of ancient environments as preserved in the rock record. Required for geology majors and highly recommended for students interested in marine science. Prerequisites: Geology 150, 160, or one course from the Geol 110 Series in combination with Geology 151. Every year.

**280. Special Topics. 4 semester hours.**

Special topics in geology chosen for their current or general interest. Open to any interested student. Some topics courses have prerequisites of Geology 110 or 150; others have none. Offered periodically. This course may be repeated for credit.

**290N. Hazard Mitigation: Volcanoes and Earthquakes. 4 semester hours.**

Environmental, interdisciplinary approach to volcanic and earthquake hazards (U.S. and world) and their mitigation (loss-reduction). Academic perspectives examined include geological, political, social, psychological and economic. Course is multi-cultural and global in focus for case studies. Critical analysis of readings and discussion are stressed. Writing intensive. No prerequisites. Open to all majors but designed especially for the non- (natural) science major. Alternate years.

**291. Spatial Analysis in the Natural Sciences. 2 semester hours.**

A raster-based approach to problem solving, this course introduces the student to the utility and availability of raster data and the methods for incorporating and analyzing it relative to interdisciplinary problems, particularly in the natural sciences. Prerequisite: A 100-level course in biology, environmental studies, geology, or physical geography. Alternate years.

**292. Earth Materials Analysis. 2 semester hours.**

An introduction to the three most widely used methods of instrumental analytical analysis of solid geologic materials (minerals, rocks, sediment, soils, fossils). Physical theory of X-ray generation, interaction with solids, and detection by powder diffractometry is covered. Physical theory of scanning electron microscopy and geologic applications, and physical theory of X-ray fluorescence and energy dispersive spectroscopy are also covered. Laboratory experience

includes standard sample preparation techniques. Prerequisites: Geology 230 Mineralogy and Optical Mineralogy. Alternate years.

**315. Watershed Hydrology. 4 semester hours.**

Study of surface and subsurface hydrology of small watersheds and the dual role of water as an agent of erosion, shaping the watershed and causing flooding, and as a resource. A minimum score of 22 on the Math Placement Exam is required. Prerequisite: Geology 150, 160, or one course from the Geol 110 Series in combination with Geology 151. Alternate years.

**320. Structural Geology. 5 semester hours.**

Study of rock deformation and related geologic structures. Review of modern geotectonic theory. Problem-solving-oriented laboratory sessions. Prerequisites: Geology 150 (or 110 and 250), 200 and 210.

**340. Earth History. 5 semester hours.**

The objectives of the course are to (1) develop the skills, and learn to use the tools with which to decipher Earth's history, and (2) learn the general history of Earth and its life forms (as preserved in the fossil record) with emphasis on North America. Prerequisite: Geology 150, Geol 160 and 151, or one course from the Geol 110 Series and 151, and Geology 260. Writing intensive. Alternate years.

**411. Sedimentary Petrography. 3 semester hours.**

Detailed microscopic and hand sample study of sedimentary rocks. Emphasis on the identification and origin of features in siliciclastic and carbonate rocks. Prerequisite: Geology 230 (or concurrent enrollment) and Geology 260. Alternate years.

**412. Igneous and Metamorphic Petrography. 5 semester hours.**

Introduction to phase diagrams and the study of igneous and metamorphic rocks emphasizing their origin, classification and identification. Megascopic and microscopic techniques emphasized. Prerequisites: Geology 230 and Chemistry 121. Alternate years.

**420. Economic Geology. 4 semester hours.**

Study of the characteristics of major occurrences of natural resources (metals, non-metals and fuels) and analysis of scientific observations concerning the origin of these deposits. A wide variety of weekly laboratory exercises and outside readings complements lectures. Prerequisite: Geology 200.

**460. Geology Seminar. 1-5 semester hours.**

Exploration of topics beyond the scope of regularly offered courses or collaborative research experience. Prerequisite: permission of supervising instructor. Offered as the need arises. This course may be repeated for credit.

**470. Field Seminar. 1-3 semester hours.**

Off-campus geological field excursion involving travel to and study of a specific geologic province or region (e.g., Ozarks, Appalachian Mountains, Upper Michigan). Involves on-campus library research, oral presentations, report writing and preparation of the field guide. Prerequisite: Geology 150 or 110. Every year. This course may be repeated for credit.

**490. Independent Study. Variable credit.**

Individual research on a specialized topic or problem pertaining to some aspect of geology of special interest to the student. Prerequisite: Permission of supervising instructor. This course may be repeated for credit.

**491. Internship. Variable credit.**

Generally an off-campus work-study experience in a geological setting. Permission and approval must be granted by the Geology Department. This course may be repeated for credit.

**492. Senior Seminar. 1 semester hour.**

Required of all Geology majors during the fall semester of their senior year. The purpose of this course is to encourage student reflection and integration of their coursework in geology relative to the discipline of geology generally and the departmental learning goals specifically. The course will enable students to complete assembly and analysis of their senior assessment materials. Writing intensive. Every year.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Global Studies

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Associate Professor Christine McIntyre, (Spanish), Director

The Global Studies program is designed to enhance the international dimension of the curriculum, primarily through the provision of a minor in Global Studies. The Global Studies program focuses on three major areas: the study of non-Western cultures, an understanding of comparative socio-cultural analysis, and a concern with globally relevant issues and themes, especially as understood within an analysis of the global system. The student is expected to seek a significant cross-culture experience, normally through participation in a study-abroad program.

A student of any academic major can profit from the international dimension provided by the Global Studies minor. It can thus strengthen preparation for the international aspects of business, social and religious service, politics and policy formation, and education. It also provides an interdisciplinary foundation for specialized graduate study.

### Requirements for Minor

Twenty-four semester hours are required for the Global Studies minor, in accordance with the following:

- I. Foundation Courses  
(16 semester hours total)
  - A. Understanding Global Systems
    1. Theoretical Foundation: Sociology 290C/S: Social Change. This course is normally taken after a student has completed one or two other Global Studies courses.
    2. Global Issues: at least four semester hours from courses with a focus on a theme of global significance. See courses listed below.
      - Economics 220 Economics of Developing Area.
      - Economics 330 International Trade and Finance.
      - Economics 350 Environmental and Natural Resource Economics.
      - Environmental Studies 101B/L Assessing Human Impacts on the Environment, or equivalent Environmental Studies course.
      - Geography 120S Human Ecology.
      - Geography 240S Economic Geography.
      - Geography 292S Population Geography (same as Sociology 292S).
      - Management 250 International Business.
      - Political Science 251S International Relations.
      - Political Science 252S International Organizations.
      - Political Science 303 Politics in Developing Nations.
      - Sociology 292S Population Problems (same as Geography 292S).
  - B. Understanding Cultural Diversity
    1. Comparative Perspective: One of the following:

- Economics 231 European Economic History.
  - French 390 Modern Critical Thought (same as German 390 and Spanish 390).
  - Geography 101S Cultural Geography.
  - Music 116C Music in Contemporary Cultures.
  - Music 216A/C Musics of the World.
  - Political Science 102S Introduction to Comparative Politics.
  - Religion 342R Comparative Religious Ethics.
  - Sociology 110C/S Cultural Anthropology.
  - Sociology 211C/S Cross-Cultural Perspectives on Kinship.
2. Non-Western Culture: at least four semester hours from courses that have been approved to meet the non-Western cultures general education learning goal. These courses are designated with a “C” in the course number.

II. Focus Courses (eight additional semester hours)

Each student prepares a proposal identifying a focus for the student’s Global Studies minor and the two additional courses that provide such a focus. Focus Courses can, but need not, come from the list of courses already identified as Foundation Courses. This proposal must be signed by the respective faculty teaching these courses (to indicate that each course relates to the specified focus) and then forwarded for approval to the Global Studies Advisory Committee.

Examples:

- International Relations: History 324 American Foreign Relations and Political Science 350 American Foreign Policy
- Third World Development: Geography 250C Regional Geography (when course is taught with a Third World focus) and Economics 220 Economics of Developing Areas
- Global Environmental Issues: Biology 346 Ecology, Geography 292S Population Geography
- Comparative Literature: English 190 Topics in Non-Western Culture and Japanese 150A/C Survey of Japanese Literature
- Music and Dance in Cross-Cultural Perspective: Theatre and Dance 210C Dance Ethnology, Music 116C Music in Contemporary Cultures

In completing these 24 semester hours, the student must adhere to the following regulations:

- f. maximum of eight semester hours can be at the 100 level,
- g. a minimum of three departments must be represented, and
- h. a maximum of 12 semester hours may come from any one department

Cross-Cultural Experience

The student is expected to have experience of a culture other than the student’s own, normally through participation in a study-abroad program. The student may explore other possibilities with the Global Studies adviser.

## Course Listings

### **490. Independent Study in Global Studies. 2-6 semester hours.**

Individual research elected by a student in consultation with the Director of Global Studies.  
Every semester.

### **491. Internship. 1-4 semester hours.**

Experiential learning in a work-study environment where the student engages with international issues and themes. Permission and approval must be granted by the Director of Global Studies.  
This course may be repeated for credit.

## Health, Fitness, and Sport

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Professors Linda L. Arena, Steven C. Dawson, Chair, and Thomas P. Martin

### Activity Course Program

Activity courses in the Health, Fitness, and Sport Department fulfill the general education requirement in physical activity (two semester hours for graduation). A student may select from a variety of activity options, which include individual sports, team sports, fitness activities, aquatic activities, and recreational activities. It is recommended that the student complete the physical activity graduation requirement during the first two years. Students are encouraged to select additional activity classes to learn new lifetime activity skills as well as maintain/improve their physical condition. All courses are one semester hour.

### Activity Courses:

052P Archery  
015P Badminton  
058P Canoeing  
030P Cricket  
016P Fencing, Beginning  
017P Fencing, Intermediate  
034P Fitness Programs  
086P Fitness Programs for Women  
043P Fitness through Swimming  
037P Fitness Walking  
070P Golf, Beginning  
072P Horsemanship  
023P Indoor Hockey  
036P Jogging  
044P Lifeguard Training (Must also register for HFS 120)  
018P Racquetball, Beginning  
076P Sailing  
049P SCUBA  
024P Soccer  
050P Step Aerobics  
040P Swimming, Beginning  
010P Tennis, Beginning  
011P Tennis, Intermediate  
028P Volleyball  
039P Weight Training  
090P Topics

### Academic Course Listings

### **120. Lifeguard Training. 2 semester hours.**

This course is designed to certify a student to guard at a pool and/or a non-surf waterfront facility. The student is also certified in Professional CPR (adult, child, infant) and First Aid. Entry requirements include (1) swim 20 lengths of the pool non-stop using the front crawl and breaststroke, (2) retrieve a brick from a depth of 12 feet and carry it 20 yards, and (3) dive to a minimum depth of 5 feet and swim underwater a minimum of 15 yards. For certification, the student is required to pass the American Red Cross written test with a minimum score of 80% and satisfactorily perform 3 rescue scenarios. The grade for this class is based on 20 quizzes. The student must concurrently register for HFS 044P (Lifeguard Training) for one semester hour of physical activity credit. To receive a pass grade in this course, the student must (1) complete 20 lengths of the pool in a minimum of 10 minutes; (2) swim 20 yards, get a brick, and carry it back in 1:30; and (3) swim 8 lengths of the pool in 3:30 or less.

### **204. Applied Anatomy. 5 semester hours.**

The course presents a detailed study of the structure and function of the bones, joints, and muscles of the human body. Emphasis is on the analysis and description of human movement. Kinesiological principles are used to understand anatomic structure and function, and common athletic injuries are used to illustrate the practical application of anatomic knowledge. Students participate in class discussions, perform anatomical laboratories, perform and analyze selected exercises, present an oral report, and take part in at least one field trip. Laboratory required. Every third year.

### **210N. Your Body: Your Health and Fitness. 4 semester hours.**

Course content includes an introduction to health and fitness, body structure and movement, muscular strength/endurance and flexibility, posture, anthropometry and somatotyping, body composition, nutrition, fat (weight) control, cardiorespiratory function, cardiovascular risk analysis, health-related fitness regimes, and sport and recreational activities for health and fitness. Students participate in laboratory sessions where they are measured and tested to determine body type, percent body fat (instructor will take skinfold measurements at selected body sites), strength/endurance, flexibility, aerobic ability and cardiorespiratory function. In addition to laboratories on these topics, there are assignments related to posture (students will be photographed in bathing suits standing behind a posture grid), nutrition, stress, cardiovascular risk and lifestyle assessments. Scientific methodologies utilized in the study of the human body will be reviewed and employed in required laboratories and assignments. Every third year.

### **225. Coaching Young Athletes. 4 semester hours.**

Prepares the student to become a competent youth sport coach. Identifies differences between a corporate model and educational model of athletics, "process vs. product" coaching philosophies and humanistic vs. autocratic coaching styles. Alternative athletic program models are examined. The student surveys recent coaching effectiveness research and develops a sound basic philosophy of coaching, including a professional code of ethics. Various coaching principles and techniques are studied: communication and motivation, talent identification, injury prevention

and care, legal responsibilities of coaches and moral imperatives in the coaching of children. Class practicum, introspective written assignments and small group discussions are interspersed with brief lectures, videos and guest coach speakers. Addresses coaching certification requirements. Every year.

**230S. Contemporary Issues in Sport Sociology and Sport Psychology. 4 semester hours.**

Sport Sociology covers the following areas: the nature of sport, sport and social values, cultural variations in sport, socialization into sport, sport within educational institutions, social stratification and sport, the female athlete, race in sport, violence in sport, sport and the mass media, and the political economy of sport. Sport Psychology covers the following areas: motivation and achievement in sport, aggression in sport, social facilitation, anxiety in sport, children in sport, sport personology, arousal and activation levels and attention in sport. Writing intensive. Alternate years.

**240. Sport in Culture. 4 semester hours.**

At a time of major political and economic change in the world, this course will examine the nature and role of international sport in the emerging global village. Students will seek to uncover the unique elements of sport in the United States and to explain its appearance in terms of the nation's dominant system of cultural values. Sport will be placed against the broader, sometimes contradictory, backdrop of American culture. As well as the United States, sport will be analyzed in the following cultures: Japan, China, the "New Europe" (e.g., former Eastern Bloc), South Africa, New Zealand and the United Kingdom. A background in sociology and cultural studies would be beneficial, although not a requirement. Alternate years.

**245H. History of Women in Sport. 4 semester hours.**

This course studies the development of sport from early religious ritual to a modern corporate model in western society. The genesis and development of recreation, sport, and exercise for women has been influenced by religion, medicine, economics, politics, and ideology. The intersection of gender, race, and socioeconomic class for women of color is examined, as is the struggle by women for admission in the Olympics. Sport has served as a historical site for feminist transformation and the development of alternative western sport forms. Women have "dared to compete." The struggle of women to gain entry into sport is both sad and inspirational. Students write a sport autobiography, conduct cross-generation sport interviews, and research Wittenberg women's sport history. Every year.

**250. Nutrition. 4 semester hours.**

This course examines basic nutritional needs in relation to macronutrients (i.e. carbohydrates, protein, and fat) and micronutrients (e.g. vitamins and minerals). Emphasis is on the analysis of food intake as it relates to healthy body function and the relationship between sound nutrition and the prevention of disease. Additional topics include caloric intake versus caloric output and controlling the food environment. The student performs computerized analysis of personal food intake. Writing intensive. Every year.

**265. AIDS and Other Sexually Transmitted Diseases. 2 semester hours.**

This course examines issues surrounding AIDS and other sexually transmitted diseases. It studies these diseases and their affects on the individual and society. Course content includes causes, symptoms, modes of transmission, social concerns, testing, counseling, legal issues, and support groups. Emphasis is placed on prevention strategies and healthy behaviors. Assessment for the course is by written tests, oral reports, specific article assignments, and class participation. Every third year.

**280. Topics. 1-4 semester hours.**

Topics of particular interest, such as alcohol and drugs, exercise physiology, sport in society, women's health issues, etc. Offered subject to sufficient student interest and availability of faculty. This course number (different topic) may be repeated for credit.

**490. Independent Study. 1-4 semester hours.**

Individual research on a specialized topic or problem on some aspect of Health, Fitness or Sport. Permission required from the Chair. The study must be an outgrowth of a course taken in the department. A HFS faculty member must work closely with each student. This course may be repeated for credit. This course does not fulfill the General Education "P" requirement.

## History

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Professor Thomas T. Taylor

Associate Professors Darlene Brooks Hedstrom, Amy Livingstone, Tammy M. Proctor, Scott Rosenberg, and Molly M. Wood, Chair

Assistant Professor Tanya Maus

Visiting Assistant Professor Christian Raffensperger

### Requirements for Major

Forty semester hours in History: 105, 106, 202, 203, an additional 100/200-level survey, 390, 411, and three courses at the 300-400 level. Twelve semester hours in advanced, related courses are also required: one intermediate course in Languages, one upper-level humanities course, and one upper-level social sciences course, all taken at the 300- level (except for the 200-level exceptions below).

### Foreign Language Cognate

Students must reach the intermediate level in their foreign language study. Those courses are as follows:

- Chinese 211
- French 201 or higher
- German 210 or 215
- Japanese 211
- Russian 205 or 210
- Spanish 150

Note that students studying Latin, Greek, or languages not offered at Wittenberg may take an English-language culture or literature course in the Languages department to fulfill the requirement.

### Social Sciences Cognate

Students must take one advanced four-semester-hour course in a related social sciences field. Courses may be drawn from the list below or from selected topics or honors courses, by permission of the instructor and History adviser.

- Economics 220, 231, 240, 250, 260, 270, 301, 310, 311, 320, 330, 340, 350
- Geography 304, 305, 330, 380, 390
- Political Science 303, 305, 312, 320, 321, 322, 323, 332, 350, 352, 354, 355
- Sociology 310, 320, 330, 340, 364, 370, 376, 380, 390

### Humanities Cognate

Students must take one advanced four-semester-hour course in a related humanities field.

Courses may be drawn from the list below or from selected topics or honors courses, by permission of the instructor and History adviser.

- ❑ Art 220, 230, 240, 243, 275, 280, 350
- ❑ Chinese 311, 312, 330
- ❑ English 280, 290, 302, 305, 306, 307, 308, 309, 310, 311, 313, 315, 318, 319, 321, 322, 330, 332, 380
- ❑ French 301, 302, 330, 350, 390
- ❑ German 301, 302, 330, 390
- ❑ Japanese 311, 312, 330
- ❑ Philosophy: any 300-level course
- ❑ Religion: any 300-level course
- ❑ Russian 310, 330
- ❑ Spanish 301, 302, 350, 351, 390

### **Major Requirements for Students Seeking Integrated Social Studies Licensure**

Thirty-six semester hours, distributed as follows: 106, 202, 203, 221, 222; three courses at the 300-level, including at least one 390; and 411. One of these nine courses must examine the pre-modern era. These nine courses must also examine at least three continents (waived for students who complete 105 and 106). Note that this major is available for only students completing integrated social studies licensure.

In addition to this major, a student seeking integrated social studies licensure must complete nine courses in Education (103 or 104, 112, 120, 307, 308, 312, 342, 349 and 495); four courses in Political Science (101, 102, one 200-level course in international relations, and one 200-level course in either American politics or political behavior); and three courses from related social sciences (Economics 190, Geography 101 or 120, or Sociology 101, 110, or 290). These requirements are subject to change, so consultation with the history and education departments is essential.

### **Requirements for Minor**

Twenty semester hours, chosen with the approval of a departmental adviser, at least eight of which are taken at the 100/200- level, and at least eight of which are taken at the 300/400-level.

### **Special Programs in History**

Museum or Public History

The department recommends taking at least one course in public history, one internship and one course in art history.

### **Course Listings**

#### **101. Topics. 2 to 4 semester hours.**

Surveys that study some region or civilization of the past. Some sections are writing intensive. May be repeated for credit.

**105C/H. The Pre-Modern World. 4 semester hours.**

Investigation of significant ideas, people, events and problems in World History from prehistory to 1400. Some sections are writing intensive. Every year.

**106C/H. The Modern World. 4 semester hours.**

Investigation of significant ideas, people, events and problems in World History from 1400 to the present. Writing intensive. Every year.

**111H. Medieval Civilization. 4 semester hours.**

Survey of important historical events, developments and people of Western Europe from the end of the ancient world to the 14th century. Writing intensive. Every year.

**112H. Modern Western Civilization. 4 semester hours.**

Survey of significant ideas, people, events and problems in European civilization from the Renaissance to the present. Writing intensive. Every year.

**135H. Latin American Civilizations. 4 semester hours.**

Survey of the history, culture and civilization of Latin America from the 15th century to the present. Writing intensive. Every year.

**161C. Pre-Modern East Asia. 4 semester hours.**

Survey of the history of East Asia's three major countries – China, Japan and Korea – from earliest times until the beginning of the 17th century. The focus is on culture and thought, as well as major political developments. Every year.

**162C. Modern East Asia. 4 semester hours.**

Survey of the history of East Asia's three major countries – China, Japan, and Korea – from the 17th century to the present. The focus is on the response of these countries to the challenges of an increasingly global world. Every year.

**170C. Topics in African History. 4 semester hours.**

Exploration of various dimensions of African history. Some sections are writing intensive. Every year.

**171C. African Societies to 1500. 4 semester hours.**

The goal of this course is to enable you to learn the major themes and issues of African history before the arrival of Europeans and the Atlantic slave trade. Topics covered will range from the

African roots of human society, placing Egypt within African history, to its influence on the kingdoms of Nubia and Ethiopia. We will also examine the role of Islam in the rise of Imperial West Africa and the city-states of the Swahili Coast. The course will conclude with the impact that the arrival of Europeans had upon these societies. You should expect to learn the main historical themes of Africa prior to 1500. In particular, this class will explore the role of oral traditions and “myth” in African societies and will attempt to ascertain their usefulness as historical documents.

### **172C. African Societies Since 1500. 4 semester Hours.**

The goal of this course is to examine how African political, cultural, religious, economic and social institutions have responded to the penetration of outsiders throughout the last 500 years. These outsiders include European slave traders, missionaries, and colonizers as well as Arab traders and Islamic scholars. The impact of the slave trade and later European colonization will be explored in depth. Africans were not passive victims in their own history, and we will focus on how Africans responded to these challenges and struggled for their independence, and how these movements helped shape the face of Post-Colonial Africa. The role of Islam in Africa, especially a series of 19th century Jihads, will also be studied. It is this dynamic interplay between Africans and outsiders that has shaped the formation of modern Africa. One of the goals of this class is to provide students with the knowledge to shatter the myths and stereotypes that surround Africa.

### **173. Settlers and Liberators of South Africa. 4 semester hours.**

This course will consider the conflict in Southern Africa from a historical perspective. We will consider the nature of the European colonial societies and the Africans who resisted them. Africans fought not only against a range of inequalities, but also, in their creative resuscitation of a suppressed past, over descriptive languages, social and cultural categories that are themselves the product of domination. Africans used passive, hidden, and violent methods to overcome a variety of difficulties in achieving independence and survival. The main focus of this class will be South Africa, but neighboring countries such as Angola, Botswana, Lesotho, Mozambique, and Zimbabwe will also be considered. Readings will include novels, biographies, and a few manuscripts. Students will be evaluated on class participation, take-home exams, and papers based upon the readings. Writing intensive.

### **201. Topics in History 4 semester hours.**

Topical approach to history. Some sections are writing intensive. May be repeated for credit.

### **202C/H. Writing and Interpreting History. 4 semester hours.**

Topics courses that introduce different modes of historical writing and problems in historical interpretation. May be repeated for credit. Prerequisite: sophomore standing or permission of instructor. Writing intensive. Every semester. Recent topics include:

- Children of the Past

- Americans and a World at War, 1915-1945
- Luther
- Origins of Recent Balkan Wars

**203C/H. The Historian's Craft. 4 semester hours.**

Series of topical courses designed to equip students with the basic skills of research and analysis, in light of the nature and uses of history. Prerequisite: sophomore standing or permission of instructor. Writing intensive. Every semester. Recent topics include:

- Holy Antique Women!
- Meiji Japan: Grappling with the Modern
- The Great War
- The Crusades
- Decade of Decadence
- The Negro Leagues
- Law in America

**210H. Topics in the History of the Ancient World. 4 semester hours.**

Examination of topics of Ancient history, e.g., Greece in the Classical period, the Roman Empire. May be repeated for credit. Writing intensive. Every year.

**215H. German History. 4 semester hours.**

Historical study of Germany since 1871. Some sections are writing intensive.

**221H. United States History I. 4 semester hours.**

Study of the United States from colonial times through Reconstruction. Some sections are writing intensive.

**222H. United States History II. 4 semester hours.**

Study of the United States since Reconstruction. Writing intensive. Every year.

**225H/R. Topics in Religious History. 4 semester hours.**

Historical study of the interaction between religion and some other aspect of American Western culture, such as law, film or science. May be repeated for credit. Alternate years.

**229A. American Film. 4 semester hours.**

Survey of American film and the film industry since the 1890s. Topics include the silent film era; the rise of the studio system and the Motion Picture Production Code; the end of the Code and

the studio era; and contemporary American film. Some sections are writing intensive. Alternate years.

**230H. African American History. 4 semester hours.**

Study of the experien

ce of African American people in the United States. Every year.

**241H. England from King Arthur to Queen Elizabeth I. 4 semester hours.**

Consideration of important developments in English society, economics, religion and politics to 1603. Writing intensive. Alternate years.

**242H. Modern Britain. 4 semester hours.**

Study of British society since the 18th century with particular focus on the rise and fall of Britain as an industrial and imperial power in Europe. Some sections are writing intensive. Alternate years.

**251C. The History of Russia to 1917. 4 semester hours.**

Survey of Russian history from the formation of the Kievan state to the collapse of the Tsarist autocracy. Writing intensive. Every year.

**252C. The History of Russia Since 1917. 4 semester hours.**

Study of the establishment of the Soviet Union, its social, economic, political and cultural development, and its dissolution. Writing intensive. Every year.

**263C. Age of the Samurai. 4 semester hours.**

This course examines the era (1160-1868) when the warrior class dominated Japanese life. It focuses on the period's ever-changing cultural norms, value systems and political styles. No prerequisites. Writing intensive. Alternate years.

**270. Topics in African History. 4 semester hours.**

Exploration of various dimensions of African history. Alternate years.

**281. Modern Middle East. 4 semester hours.**

This course is a survey of the history of the Modern Middle East through the reading of primary documents, secondary sources, short stories by Arab novelists, and the viewing of Arab, Farsi, and Hebrew films. Specific attention will be directed toward the topic of religious diversity in the

region (Islam, Judaism, and Christianity) and how the various groups have impacted the present configuration of the Middle East. Writing intensive.

**301. Topics. 2-4 semester hours.**

Topical approach, focusing on a specific theme. Prerequisites vary by section. Some sections are writing intensive. Prerequisite: one course in history or permission of instructor. May be repeated for credit. Every year.

**312. From Constantine to the Vikings: Europe in the Early Middle Ages. 4 semester hours.**

Examination of the history of Western Europe from the late Roman period through the Viking Raids of the 10th century. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**313. From the Vikings to the Black Death: Europe from 1000 to 1400. 4 semester hours.**

Examination of the history of Western Europe from the end of the Carolingian world through the ravages of the Black Death. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**314. Renaissance and Reformation. 4 semester hours.**

Examination of the political, social and intellectual changes in European society from the 14th to the 17th centuries. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**315C. The Cross and the Crescent: The History of Islam and the West, 500 to 1500. 4 semester hours.**

Examination of the history of Islam and its interactions with Western Europe from Muhammad to the Ottoman Empire. Prerequisite: one course in history or permission of instructor. Writing intensive.

**317. Europe in the Twentieth Century. 4 semester hours.**

Study of selected topics drawn from the main currents of 20th century European history particularly as they affect developments within and among the European states. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**319. European Women's History. 4 semester hours.**

Survey of major themes in the history and study of European women. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**320. American Women's History. 4 semester hours.**

Study and exploration of roles of women in American society from the 17th century to the present. Prerequisite: one course in history or permission of instructor. Writing intensive.

**323. Urban History. 4 semester hours.**

History of the city and a study of the process of urbanization. Prerequisite: one course in history or permission of instructor.

**324. American Foreign Relations. 4 semester hours.**

Consideration of U.S. foreign policy from emergence as a world power to the present. Prerequisite: one course in history or permission of instructor. Writing intensive.

**331. American Constitutional History I. 4 semester hours.**

Examination of the constitutional issues and the leading figures who helped shape American constitutional development from colonial beginnings to the end of Reconstruction. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**332. American Constitutional History II. 4 semester hours.**

Examination of the constitutional issues and the leading figures who helped shape American constitutional development from Reconstruction to the present. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**335. Modern Latin America. 4 semester hours.**

Introduction to 19th and 20th century Latin America, with a focus on major issues, trends, and themes in the history and development of Latin America since independence. Prerequisite: one course in history or permission of instructor. Writing intensive.

**341. The Victorians. 4 semester hours.**

Study of the major social, economic, political and intellectual developments of the period. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**342. Age of the French Revolution. 4 semester hours.**

Examination of the major themes that both inspired revolutionary activity and resulted from the age of revolution in France. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**361C. East Asia and the West. 4 semester hours.**

Examination of the relationship of China, Japan, and the Philippines with countries of the western hemisphere before and after the onset of imperialism. Interpretations focus on concepts

such as orientalism, modernity and colonialism. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**362C. Japan since 1945. 4 semester hours.**

Survey of Japan's post-World War II experience, from defeat and occupation through a return to world power status. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**370. Topics in African History. 4 semester hours.**

Exploration of various themes and debates in African history. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**371. Nationalism, Ethnicity, and Gender in 20th Century Africa. 4 semester hours.**

The objective of this course is to provide students with an analytical and historical framework for understanding events on the African continent during the 20th century. Students will be provided the necessary historical background, however, the main thrust of this class will be to investigate the changing notions of nationalism, ethnicity, and gender in modern Africa. Prerequisite: one course in history or permission of instructor.

**372. Race in the United States and South Africa. 4 semester hours.**

This class will focus on the political, economic, and cultural reasons behind the construction of racially discriminatory systems in the United States and in South Africa. White settlers in both the United States and South Africa turned to the use of slaves; why did they do this and how did they justify it? After the abolition of slavery, each society developed new economic structures along with new forms of institutionalized segregation. By comparing the institutionalization of racism in both countries, students will gain a better understanding of why these systems emerge and how they function. Prerequisite: one course in history or permission of instructor.

**380. Topics in Public History. 4 semester hours.**

Topics in various aspects of public or applied history, such as archival management, historic preservation and museum studies. Prerequisite: one course in history or permission of instructor. Writing intensive. Alternate years.

**390. Reading Colloquium. 4 semester hours.**

Current topics include:

- Medieval Women
- The Cold War at Home and Abroad
- South Africa
- Stalin

- Hiroshima and Nagasaki
- Impeachments and Contested Elections
- European Imperialism

Prerequisite: History 202. Writing intensive. Every year. This course may be repeated for credit.

**411. Senior Seminar: the Study of History. 4 semester hours.**

Philosophical approach with a consideration of methods of historical research and writing.  
Prerequisite: History 202, 203, history major and instructor's permission. Writing intensive.  
Every year.

**490. Independent Study. 1-4 semester hours.**

Prerequisite: Instructor's permission. Every year. This course may be repeated for credit.

**491. Internship. 1-4 semester hours.**

Prerequisite: Instructor's permission. Every year. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Languages

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Associate Professors David T. Barry (German), Timothy A. Bennett, Chair (German), Amy G. Christiansen (Japanese), Lillian C. Franklin (Spanish), Ruth J. Hoff (Spanish), Christine McIntyre (Spanish), Leanne B. Wierenga (French), Timothy L. Wilkerson (French) and Lila W. Zaharkov (Russian)

Assistant Professors Manuel Apodaca-Valdez (Spanish), Shelley Wing Chan (Chinese Language and Cultural Studies), Howard Choy (Chinese), and Terumi Imai (Japanese)

All incoming first-year students are required to take the language placement examinations, which may be taken either over the summer or during New Student Days.

### **CHINESE — Requirements for Minor**

Required in Chinese (16 semester hours)

Two full years of Chinese language study beyond Chinese 112 Elementary Chinese II.

Required in Other Departments (4 semester hours)

One course from the disciplinary areas of literature, history, political science, religion, or sociology that is focused solely on the study of China.

### **FRENCH — Requirements for Major**

Required in French

French 210, 215, 250, 301, 302, 390 and 450 plus eight more semester hours chosen from among the following: French 350, 410, 411, 412, 413 or 414. French 112 or equivalent training, the value of which may be determined by a proficiency examination, is prerequisite to all other courses in French, but does not count toward the major.

Recommended in the Department of Foreign Languages and Literatures

At least two courses in another language. Whenever possible, these should be above the 112 level.

Recommended in Other Departments

Related courses in Art, English, History, Music, Philosophy and Political Science.

Requirements for Minors

Culture Emphasis Minor:

French 210, 215, 250, 350 and four additional semester hours to be chosen from the following: Political Science 305: West European Politics; Economics 231: European Economic History; History 319: Intellectual History of Europe; and French 301 and 302.

Literature Emphasis Minor:

French 210, 215, 250, 301 and 302.

### Licensure for Teaching in French

Students interested in pursuing a course of study leading to a license to teach French should contact their adviser or the Education Department for specific requirements.

### **GERMAN — Requirements for Major**

Required in German

Thirty-two semester hours beyond 112, including 215 and one other course at the 200 level, 301, 302 and two seminars at the 400 level.

Recommended in the Department of Foreign Languages and Literatures

At least two courses in another language. Whenever possible, these should be above the 112 level.

Recommended in Other Departments

Related courses in Art, Literature, History, Music, Philosophy, Political Science, Religion and Theatre.

Requirements for Minor

At least 20 semester hours beyond 112. Each student minoring in German is required to design the minor in consultation with the department.

### Licensure for Teaching in German

Students interested in pursuing a course of study leading to a license to teach German should contact their adviser or the Education Department for specific requirements.

### **JAPANESE — Requirements for Minor**

Twenty semester hours distributed as follows:

Japanese 211, 212, 311, and 312.

Japanese 430 or one four-semester-hour course in Japanese communication, linguistics, or literature

Recommended in Other Departments

Students are encouraged to broaden their understanding of Japan through East Asian Studies classes offered in many departments.

### **SPANISH — Requirements for Major**

Required in Spanish

Spanish 215, 216, 217, 301 or 302, 450, eight additional semester hours at the 300 level, with a maximum of four semester hours of Hispanic Literature 130 applied to the major, eight additional semester hours at the 400 level, four of which must be taken at Wittenberg. Spanish 301 and/or 302 must be taken at Wittenberg. Spanish 112 or equivalent training, the value of which may be determined by a proficiency examination is a prerequisite to all other courses in Spanish but does not count toward the major.

### Requirements for the Minor

Spanish 215, 216, 217, four semester hours at the 300 level, and four semester hours at the 400 level.

### Licensure for Teaching in Spanish

Students interested in pursuing a course of study leading to a license to teach Spanish should contact their adviser or the Education Department for specific requirements.

### **Course Listings in**

Chinese

French

German

Greek

Japanese

Latin

Spanish

Russian

## Chinese

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### Course Listings

#### **111. Beginning Chinese I. 5 semester hours.**

Introduction to spoken putonghua and the Chinese writing system. Mastery of 250 characters and compounds expected. Every year.

#### **112F. Beginning Chinese II. 5 semester hours.**

Continuation of 111. Mastery of another 300 characters and compounds expected. Prerequisite: Chinese 111 or its equivalent. Every year.

#### **130. Chinese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, reading in English. Some sections are writing intensive. This course may be repeated for credit.

#### **151. Modern Chinese Film and Fiction. 4 semester hours.**

Survey of film and fiction in 20th century China. Intended for students with no previous knowledge of the subject matter. Taught in English. Every year.

#### **211. Intermediate Chinese I. 4 semester hours.**

Emphasis on vocabulary acquisition and grammatical competency. Classes are conducted in spoken putonghua. Prerequisite: Chinese 112. Every year.

#### **212. Intermediate Chinese II. 4 semester hours.**

Continuation of 211. Prerequisite: Chinese 211. Every year.

#### **230. Chinese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, reading in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

#### **311. Directed Reading of Chinese Newspapers. 4 semester hours.**

Emphasis on tactics and skills of reading Chinese newspapers. Class work is conducted in Chinese. Prerequisite: Chinese 212 or permission of instructor. Every year.

**312. Directed Readings of Chinese Literature. 4 semester hours.**

Intensive study of pieces representative of Republican and Communist style literature. Focus primarily on modern fiction. Prerequisite: Chinese 311 or permission of instructor. Every year.

**330. Chinese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language learning and classroom practice. The student learns to plan, implement and evaluate language instruction for students at the elementary and secondary school levels, and to enrich curriculum content to promote appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisite: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**490. Independent Study. 4 semester hours.**

Tutorials for the student who has excelled in previous study of putonghua. Thematic content chosen according to student's intellectual interests. Conducted entirely in putonghua. Every year. This course may be repeated for credit.

**491. Internship. Variable credit.**

## French

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### Course Listings

#### **111. Beginning French I. 5 semester hours.**

Emphasis on elementary grammar, oral practice and required laboratory. Open to the beginner, except by permission or placement. Every year.

#### **112F. Beginning French II. 5 semester hours.**

Grammar review, composition, oral practice, reading and required laboratory. Prerequisite: French 111 or equivalent. Every semester.

#### **140A. Themes of Francophone Literature. 4 semester hours.**

The course introduces students to francophone literary traditions. Representative works are studied and discussed. Lectures, readings and discussions are in English. Some sections are writing intensive. Every year.

#### **201. Advanced Intermediate French. 4 semester hours.**

Study of French in the context of the liberal arts. Reading in French literature, culture and history; composition, oral practice; thorough and systematic review of French grammar. For students with three or more years of high school French. Every semester.

#### **210. Expression orale. 4 semester hours.**

Course in oral French, vocabulary building, and study of idioms and popular style. Individual conferences. Prerequisite: French 112 or equivalent.

#### **215. Expression écrite. 4 semester hours.**

Advanced composition, grammar review and introduction to literary analysis. Prerequisite: French 201 or equivalent. Writing intensive. Every year.

#### **230. French Topics. 4 semester hours.**

Study of topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Some sections writing intensive. Offered as need arises. This course may be repeated for credit.

#### **250. French Culture and Society. 4 semester hours.**

Consideration of topics in contemporary French culture, including study of economic, political, sociological, educational and artistic institutions and issues in France today. Prerequisite: French 112 or its equivalent. Writing intensive. Alternate years.

**301A. Survey of Literature I. 4 semester hours.**

Survey of major writers, movements and genres in French literature from the Medieval period through the 17th century. Prerequisite: one 200-level French course or by permission. Writing intensive. Every year.

**302A. Survey of Literature II. 4 semester hours.**

Continuation of 301 dealing with the major writers, movements and genres during the 18th and 19th centuries. Prerequisite: one 200-level French course. Recommended: French 215. Writing intensive. Every year.

**330. French Topics. 4 semester hours.**

Study of special subjects, chosen by the instructor and described in the course schedule each term. Some sections writing intensive. Offered as need arises. This course may be repeated for credit.

**350. La France et Les Français. 4 semester hours.**

History from the Gauls to the present. Special consideration will be given to the relationship between French history and French literature. Prerequisite: French 250 or permission of instructor. Some sections writing intensive. Offered as need arises.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language learning and classroom practice. The student learns to plan, implement, and evaluate language instruction for students at the elementary and secondary school levels, and to enrich curriculum content to promote appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisite: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**390R. Modern Critical Thought. 4 semester hours.**

Introduction to contemporary theory, including deconstruction, discourse theory, feminist and postcolonial theory, and theories of gender. No prerequisites. Some sections writing intensive. Alternate years.

**410. La Poésie française. 4 semester hours.**

In-depth study of French poets from the Renaissance to the present. Prerequisite: French 301 and/or 302. Writing intensive. Every third year.

**411. Le Théâtre français. 4 semester hours.**

Study of French theater from the 17th century to the present. Prerequisite: French 301 and/or 302. Writing intensive. Every third year.

**412. La Prose I: L' épopée, le roman, les essais, et les écrits philosophiques (le moyen âge au 18e siècle). 4 semester hours.**

Study of representative prose works from 1200 through 1789. Prerequisite: French 301 and/or 302. Writing intensive. Every third year.

**413. La Prose II: le roman du 19e siècle. 4 semester hours.**

Study of the novelists of the 19th century, including Musset, Balzac, Stendhal, and Flaubert. Prerequisite: French 301 and/or 302. Writing intensive. Every third year.

**414. La Prose III: le roman du 20e siècle. 4 semester hours.**

Study of works from various literary movements in the 20th century, including Proust. Prerequisite: French 301 and/or 302. Writing intensive. Every third year.

**450. Senior Seminar. 4 semester hours.**

Review of major literary movements and genres. Required of majors. Writing intensive. Every spring.

**490. Independent Study. Variable credit.**

This course may be repeated for credit.

**491. Internship. Variable credit.**

This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## German

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### Course Listings

#### **105. German for Professionals I. 4 semester hours.**

The foundation course of the two-course series designed to meet the needs of professional learners by allowing them to demonstrate competency in German while incorporating their professional interests into their language learning. The course and classroom experience are designed to accommodate the lifestyle of students in the Community Education program. Enrollment is limited to students in the School of Community Education.

#### **106. German for Professionals II. 4 semester hours.**

Continuation of German 105. Instruction in German 106 is more highly individualized. Students work both independently and in groups to complete portfolio projects designed by individuals in consultation with the instructor. The portfolio reflects the individual student's personal and professional goals and serves to meet the competency requirement. Enrollment limited to students in the School of Community Education.

#### **111. Beginning German I. 5 semester hours.**

Fundamentals of grammar, pronunciation, oral practice and laboratory work. Also a basic introduction to German culture. Open to only the beginner, except by permission of instructor. Every year.

#### **112F. Beginning German II. 5 semester hours.**

Explication of grammar, continued oral practice, reading of literary and/or cultural texts and related explication of grammar and laboratory work. Prerequisite: German 111 or equivalent. Every year.

#### **140A. Traditions in German Literature. 4 semester hours.**

The course introduces students to the literary traditions of German speaking Europe. Representative works are studied and discussed. Lectures, readings and discussions are in English. The course serves to acquaint students with the aesthetic and cultural dimensions of the literary work of art.

#### **210. Conversation. 4 semester hours.**

Concentration on phonetics, vocabulary building, oral practice and communicative strategies. Prerequisite: 112, German competency, or permission of instructor. Every year.

**215. Culture and Composition. 4 semester hours.**

Stylistic analysis and grammar review. Using writing as a mode of exploration, the student analyzes texts and discusses issues characterizing German history and culture. Writing intensive. Prerequisite: 112, German competency, or permission of instructor. Every year.

**230. German Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Some sections may be writing intensive. Offered as need arises. This course may be repeated for credit.

**275A/L. Germans and Jews: Culture, Identity and Difference. 4 semester hours.**

Study of the issues that have characterized the history of German Jewry in its relationship to German Christendom, focusing on the period from the Enlightenment to the aftermath of the Holocaust. Consideration of the problems of cultural difference, assimilation, European identity and discrimination as reflected in the cultural imagination. German and religion sections meet together on a regular basis. Writing intensive. Alternate years.

**301A. Aufklaerung, Klassik, Romantik. 4 semester hours.**

Survey of the literary monuments of the German Enlightenment, German Classicism and Romanticism. The literature is examined in light of the historical and intellectual movements of the various periods. Writing intensive. Prerequisite: One course at the 200 level or permission of instructor. Alternate years.

**302A. Von heute bis zum Vormarz. 4 semester hours.**

Survey of German literature beginning with the modern period and tracing its roots back to the period preceding the failed March revolution of 1848. Course helps the student to understand the questions of literary origins and to assess the relationships between cultural and literary problems. Writing intensive. Prerequisite: One course at the 200 level or permission of instructor. Alternate years.

**330. German Topics. 4 semester hours (1-8 semester hours for study abroad).**

Study of special subjects, chosen by the instructor and described in the course schedule each term. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language learning and classroom practice. The student learns to plan, implement, and evaluate language instruction for students at the elementary and secondary school levels, and to enrich curriculum content to promote

appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisite: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**390R. Modern Critical Thought. 4 semester hours.**

Introduction to modern developments in critical thought, such as theories of the sign and production of meaning as they pertain to literary analysis. Prerequisite: German 215. May be writing intensive. Every year.

**410. Period Seminar. 4 semester hours.**

In-depth study of a literary movement or period; topic chosen by the instructor. Writing intensive. Prerequisite: One course at 300 level or permission of instructor. Every third year. This course may be repeated for credit.

**420. Nationhood, War and Peace. 4 semester hours.**

Investigation of the issues of war and peace as reflected in the German cultural imagination. Writing intensive. Prerequisite: One course at 300 level or permission of instructor. Every third year.

**450. Self and Other. 4 semester hours.**

Issues and images of identity and difference within German culture. Writing intensive. Prerequisite: One course at 300 level or permission of instructor. Every third year.

**460. The German Stage and the Critical Gaze. 4 semester hours.**

Study of tragedy and comedy both as literary stylistic modes and in social context. Writing intensive. Prerequisite: One course at 300 level or permission of instructor. Every third year.

**470. Faust and the Redemption of Modern European Culture. 4 semester hours.**

Focus on major treatments of the Faust legend examining the question of whether modern European culture is beyond redemption. Writing intensive. Prerequisite: One course at 300 level or permission of instructor. Every third year.

**490. Independent Study. Variable credit.**

This course may be repeated for credit.

**491. Internship. Variable credit.**

This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Greek

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### Course Listings

#### **111. Elementary Classical Greek. 4 semester hours.**

Emphasis on grammar, exercises and selected readings. Intended for the beginner. Every third year, depending on interest.

#### **112F. Intermediate Classical Greek. 4 semester hours.**

Continuation of grammar, exercises and selected readings in Attic Greek. Prerequisite: Greek 111. Every third year, depending on interest.

## Japanese

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### Course Listings

#### **111. Beginning Japanese I. 5 semester hours.**

Introduces the fundamental communication skills of listening, speaking, reading and writing, as well as sociolinguistic information necessary for effective communication with Japanese natives. Every year.

#### **112F. Beginning Japanese II. 5 semester hours.**

Continued introduction of fundamental listening, speaking, reading and writing skills, together with the relevant sociolinguistic information. Prerequisite: Japanese III or placement. Every year.

#### **130. Japanese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Some sections writing intensive. Offered as need arises. This course may be repeated for credit.

#### **150A/C. Survey of Japanese Literature. 4 semester hours.**

Introduction to major literary works written in Japan between the year 900 and the present. Designed to be of interest to the entire campus community. Taught in English, readings in English. Every year.

#### **211. Intermediate Japanese I. 4 semester hours.**

Further development of the fundamental communication skills of listening, speaking, reading and writing, as well as the sociolinguistic information necessary for effective communication with Japanese natives. Prerequisite: Japanese 112 or placement. Every year.

#### **212. Intermediate Japanese II. 4 semester hours.**

Continued development of the fundamental communication skills of listening, speaking, reading and writing, as well as the sociolinguistic information necessary for effective communication with Japanese natives. Prerequisite: Japanese 211 or placement. Every year.

#### **230. Japanese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Some sections may be writing

intensive. Offered as need arises. This course may be repeated for credit. Examples of courses that might be offered include:

**230 A/C. Japanese Women Writers of the 20th Century. 4 semester hours.**

In the Western imagination, Japanese women have been cast as gentle, voiceless creatures living in shadows of their husbands. But the fiction written by Japanese women presents a female image that is as vibrant as it is varied. This course will examine the various manifestations of the female image in the female-authored modern Japanese fiction from the turn of the twentieth century to the present.

**230 S. Language in Society. 4 semester hours.**

This course will look at language as it creates and responds to its cultural and social environments. Our main focus will be on the variation in one language, which results from different social statuses and purposes. We will seek to explain as well as describe such facts. Why do regional varieties of U.S. English continue to exist after years of mass media influence? Why does one variety of a language gain and maintain great prestige (the so-called standard variety)? Why are we prejudiced against some varieties of language, and what reasons do we offer for those prejudices? Why do men and women speak differently? Is English a sexist language? If so, what linguistics facts support such an interpretation? These are some of the questions we will be asking in this course. We will focus on language variation in English but will also read some articles on Japanese language variation to see if these variation patterns hold among different languages.

**230 S. Introduction to Linguistics. 4 semester hours.**

Have you studied a foreign language before? Have you wondered why it is so different from English? For example, why does Japanese have ways in the grammar to show respect for elders and superiors while English does not? Have you wondered why Russian does not have articles like "a" and "the" while English does? Have you wondered why your Spanish does not sound like your teacher's? If you answered yes to any of these questions, this class is for you. We will discuss the different levels of language (their sound systems, vocabularies, inflections, and grammars) and the role these languages and their units play in their respective societies.

**250 A/C. Japanese Literature and Aesthetics. 4 semester hours.**

Interdisciplinary study of contemporary and pre-modern literature, visual and performing arts in Japan. Discussions of the intellectual, emotional and aesthetic conflicts arising from the encounter of the traditional Japanese world view with modern industrial civilization. Taught in English, texts in English. Alternate years.

**311. Advanced Japanese I. 4 semester hours.**

The goal of the course is to develop culturally and socially appropriate proficiency in the four language skills: reading, writing, listening and speaking. Prerequisite: 212 or placement. Every year.

**312. Advanced Japanese II. 4 semester hours.**

A continuation of 311, the goal of the course is to develop culturally and socially appropriate proficiency in the four language skills: reading, writing, listening and speaking. Prerequisite: 311 or placement. Every year.

**330. Japanese Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language learning and classroom practice. The student learns to plan, implement, and evaluate language instruction for students at the elementary and secondary school levels, and to enrich curriculum content to promote appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisite: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**430. Topics in Japanese Language and Literature. 4 semester hours.**

This course is designed to meet the needs of Japanese language students who have surpassed the highest levels of Japanese language study available in existing courses at the university. Course design will vary in accordance with student need, and may include select readings and conversation activities. Prerequisite: Japanese 312 or permission of the instructor.

**490. Independent Study. Variable credit.**

This course may be repeated for credit.

**491. Internship. Variable credit.**

## Latin

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### Course Listings

#### **111. Elementary Latin. 4 semester hours.**

Concentration on grammar, exercises and selected readings. Intended for the beginner and for the student with some high school background in Latin. Every year.

#### **112. Intermediate Latin. 4 semester hours.**

Continuation of grammar, exercises and selected readings in classical Latin and discussion of Roman culture. Prerequisite: Latin 111 or equivalent. Every year.

## Russian

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### Course Listings

#### **105F. Russian for Professionals I. 4 semester hours.**

Introduction to the study of Russian through speaking, reading and translation. Computer-assisted instruction in speaking and in reading Russian Culture. Enrollment limited to students in the School of Community Education.

#### **106F. Russian for Professionals II. 4 semester hours.**

Continuation of Russian 105; speaking, reading and translation. Russian culture through reading Russian texts. Computer-assisted instruction. Enrollment limited to students in the School of Community Education.

#### **111. Beginning Russian I. 5 semester hours.**

Introduction to the structure of Russian through oral and written practice. Every year.

#### **112F. Beginning Russian II. 5 semester hours.**

Continuation of the structure of Russian through oral and written practice. Every year.

#### **130. Russian Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

#### **205C. Readings in Russian Culture. 4 semester hours.**

Introduction to reading techniques and to readings in a variety of Russian prose. Short story, press and cultural texts. Prerequisite: Russian 112 or equivalent. Every year.

#### **210. Beginning Conversation and Composition. 4 semester hours.**

Review of grammatical structures and introduction to composition. Vocabulary and conversation practice on everyday themes. Writing intensive. Prerequisite: Russian 112 or equivalent. Every year.

#### **230. Russian Topics. 4 semester hours.**

Study of special subjects, in Russian, chosen by the instructor and described in the course schedule each semester. Taught as needed. This course may be repeated for credit.

**260A/C. 19th Century Russian Literature. 4 semester hours.**

Study of the major writers of 19th-century Russia. Reference to the cultural milieu. Authors include Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov and others. Taught in English. Writing intensive. Alternate years.

**261A/C. 20th Century Russian Literature. 4 semester hours.**

Study of the major writers of 20th-century Russia. Major authors studied in the historical context of building a new society. Authors include Zamjatin, Bulgakov, Pasternak, Solzhenitsyn and others. Taught in English. Writing intensive. Alternate years.

**310. Advanced Conversation and Composition. 4 semester hours.**

Advanced conversation techniques and idiomatic expressions. Advanced grammar topics and composition practice. Required for study abroad programs. Writing intensive. Prerequisite: Russian 210. Every year.

**330. Russian Topics. 4 semester hours.**

Study of special subjects, chosen by the instructor and described in the course schedule each semester. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language learning and classroom practice. The student learns to plan, implement, and evaluate language instruction for students at the elementary and secondary school levels, and to enrich curriculum content to promote appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisite: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**490. Independent Study. Variable credit.**

This course may be repeated for credit.

**491. Internship. Variable credit.**

This course may be repeated for credit.

## Spanish

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### Course Listings

#### **105. Spanish for Professionals I. 4 semester hours.**

The first course of the two-course series designed to meet the needs of professional learners enabling them to achieve language competency goals within the context of their professional interests and in a learning environment designed to accommodate the lifestyle of the non-traditional student. Enrollment is limited to students in the School of Community Education.

#### **106. Spanish for Professionals II. 4 semester hours.**

The second course of the two-course series offered for students in the School of Community Education. Spanish 106 follows a modified individualized instruction format, with students meeting to review grammar, discuss and present assignments and projects. Students will receive assignments based on professional and/or personal interests and needs. Areas of interests include Spanish for business professionals, health care professionals and law enforcement. Students who successfully complete all work and activities in 106 will complete the language requirement. Enrollment is limited to students in the School of Community Education.

#### **111. Beginning Spanish I. 5 semester hours.**

Emphasis on elementary grammar, oral practice and required laboratory. Every year.

#### **112F. Beginning Spanish II. 5 semester hours.**

Grammar review, composition, oral practice, reading and required laboratory. Prerequisite: Spanish 111 or equivalent. Every year.

#### **130A. Hispanic Literature. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. Topics will focus on issues of race, gender, national and ethnic identity formation. Alternate years.

#### **150F. Intermediate Spanish. 5 semester hours.**

This course is designed to offer students at the intermediate level an opportunity to acquire communicative skills, improve their formal knowledge of the language, and develop an awareness and appreciation of Hispanic cultures. Prerequisite: Spanish 112 or equivalent. Every year.

#### **215. Studies in Spanish Language. 4 semester hours.**

Designed for the student who has completed Spanish grammar at the beginning II level (112), the intermediate level (150), and its equivalent. The course will provide a thorough and systematic survey of selected items of Spanish grammar, expand vocabulary for conversation, and teach students how to write in a simple, clear style. Prerequisite: Spanish 112, 150, or placement examination. Every year.

**216. Conversation and Contemporary Issues. 4 semester hours.**

This course is designed to develop skills in the spoken language. Course focuses on contemporary issues of the Hispanic world, reviews the more complex aspects of Spanish grammar, and expands vocabulary for conversation. Prerequisite: Spanish 215 or permission of the instructor. Every year.

**217. The Craft of Writing. 4 semester hours.**

This course is designed to develop written language skills at the advanced intermediate level. Prerequisite: Spanish 215 or 216 or permission of instructor. Writing intensive. Every year.

**230. Topics in Hispanic Literature. 4 semester hours.**

Topics, chosen by instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**301A. Introduction to Hispanic Literature. 4 semester hours.**

Provides an introduction to the major periods and movements through which Hispanic literature has evolved, from its beginnings to the 19th century. Designed to provide the student with the opportunity to acquire the technical vocabulary of the Hispanic literary critic. Includes discussions of the artistic implications of literature and presentation of the four basic genres: narrative, poetry, drama and essay. Writing intensive. Prerequisite: Spanish 215 or 217. Alternate years.

**302A. Introduction to Hispanic Literature II. 4 semester hours.**

Continuation of Spanish 301, provides the student with a survey of 19th and 20th centuries. Significant figures and literary currents of the Hispanic world are presented. Writing intensive. Prerequisite: Spanish 215 or 217. Alternate years.

**330. Topics in Advanced Hispanic Literature. 4 semester hours.**

This topics course is designed for the student in the 300 level (and above) in Spanish. With topics chosen by the instructor, Spanish 330 complements the topics courses at the 100 and 200 level, providing additional learning opportunities for students in the Spanish language. Prerequisite: Spanish 215, 217, or permission of instructor. Offered as need arises. This course may be repeated for credit.

**350H. Spanish Peninsular Civilization. 4 semester hours.**

Cultural survey of Spain from its earliest history to the present with an emphasis on contemporary Peninsular culture. Lectures and discussions are supplemented by readings as well as presentations that reflect the history and development of Spanish civilization. Prerequisite: Spanish 215 or 217. Alternate years.

**351H. Latin American Culture. 4 semester hours.**

Study of the development of Latin America focusing on the cause, meaning and effects of events, which have shaped its culture. The course objective is to show the unity of Latin American culture. Prerequisite: Spanish 215 or 217. Alternate years.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language and learning and classroom practice. The students learn to plan, implement, and evaluate language instruction for students at the middle and secondary school levels, and to enrich curriculum content to promote appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisites: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**390R. Modern Critical Thought. 4 semester hours.**

Introduction to modern developments in critical thought such as theories of the sign and production of meaning as they pertain to literary analysis. Prerequisite: Spanish 217 or 130. May be writing intensive. Every year.

**415. Advanced Studies in Spanish Language. 4 semester hours.**

This course is a continuation of Spanish 215. It is especially recommended for students who seek advanced work in grammar, with the goal of producing idiomatic Spanish. Students will acquire an understanding of more sophisticated grammar structures and their interrelations. Prerequisite: Spanish 215 and a 300-level course taught in Spanish. Alternate years.

**425. Advanced Studies in Hispanic Literature I. 4 semester hours.**

In-depth study of topics and themes in Peninsular literature. Course will include reading, analysis and discussion of selected literary works. Prerequisite: any 300-level course taught in Spanish. Writing intensive. Alternate years.

**426. Advanced Studies in Hispanic Literature II. 4 semester hours.**

In-depth study of topics and themes in Latin American literature. Course will include reading, analysis and discussion of selected literary works. Prerequisite: any 300-level course taught in Spanish. Writing intensive. Alternate years.

**427. The Silver Screen. 4 semester hours.**

This course will familiarize students with the history of film in the Hispanic world. Students will view works by prominent directors from Spain and the Americas, as well as explore issues and trends in Hispanic films. Prerequisite: any 300-level course taught in Spanish. Every third year.

**430. Intensive Spanish Conversation. 2 semester hours.**

Expansion of oral communication skills in different areas of concentration such as business, medicine, literature and politics. Emphasis on modes of expression and lexicon enhancement. Prerequisite: any 300-level course taught in Spanish. Every third year.

**432. Reading and Research in Spanish. 2 semester hours.**

Selected readings. Emphasis on critical analysis and literary theories with direct application to Hispanic studies. Prerequisite: any 300-level course taught in Spanish. Every third year.

**434. Spanish Pronunciation. 2 semester hours.**

Introduction to Spanish phonology with particular attention to speech characteristics and to dialectal differences in Peninsular and Spanish American phonology. Oral drill to improve pronunciation and diction. Prerequisite: Any 300-level course taught in Spanish. Every third year.

**450. Spanish Seminar. 4 semester hours.**

In-depth study of a literary movement, problem, author, or genre. Topic to be chosen by instructor. Required of each Spanish major. Prerequisites: Spanish 301 or 302 and one 400-level Spanish course. Writing intensive. Every year.

**490. Independent Study. Variable credit.**

This course may be repeated for credit.

**491. Internship. Variable credit.**

This course may be repeated for credit.

**494. Methodology of Early Childhood Spanish Language Education. 2 semester hours.**

This course is designed to give students seeking the P-12 licensure in Spanish experience in foreign language teaching at the elementary school level. The course requires a six-week field experience of observation and supervised teaching of Spanish in one of the local elementary

schools. Prerequisites: Completion of two 200-level courses in Spanish or permission of the instructor. Alternate years.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Russian

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### Course Listings

#### **105F. Russian for Professionals I. 4 semester hours.**

Introduction to the study of Russian through speaking, reading and translation. Computer-assisted instruction in speaking and in reading Russian Culture. Enrollment limited to students in the School of Community Education.

#### **106F. Russian for Professionals II. 4 semester hours.**

Continuation of Russian 105; speaking, reading and translation. Russian culture through reading Russian texts. Computer-assisted instruction. Enrollment limited to students in the School of Community Education.

#### **111. Beginning Russian I. 5 semester hours.**

Introduction to the structure of Russian through oral and written practice. Every year.

#### **112F. Beginning Russian II. 5 semester hours.**

Continuation of the structure of Russian through oral and written practice. Every year.

#### **130. Russian Topics. 4 semester hours.**

Topics, chosen by the instructor, designed to be of interest to the entire campus community. Taught in English, readings in English. May be writing intensive. Offered as need arises. This course may be repeated for credit.

#### **205C. Readings in Russian Culture. 4 semester hours.**

Introduction to reading techniques and to readings in a variety of Russian prose. Short story, press and cultural texts. Prerequisite: Russian 112 or equivalent. Every year.

#### **210. Beginning Conversation and Composition. 4 semester hours.**

Review of grammatical structures and introduction to composition. Vocabulary and conversation practice on everyday themes. Writing intensive. Prerequisite: Russian 112 or equivalent. Every year.

**230. Russian Topics. 4 semester hours.**

Study of special subjects, in Russian, chosen by the instructor and described in the course schedule each semester. Taught as needed. This course may be repeated for credit.

**260A/C. 19th Century Russian Literature. 4 semester hours.**

Study of the major writers of 19th-century Russia. Reference to the cultural milieu. Authors include Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov and others. Taught in English. Writing intensive. Alternate years.

**261A/C. 20th Century Russian Literature. 4 semester hours.**

Study of the major writers of 20th-century Russia. Major authors studied in the historical context of building a new society. Authors include Zamjatin, Bulgakov, Pasternak, Solzhenitsyn and others. Taught in English. Writing intensive. Alternate years.

**310. Advanced Conversation and Composition. 4 semester hours.**

Advanced conversation techniques and idiomatic expressions. Advanced grammar topics and composition practice. Required for study abroad programs. Writing intensive. Prerequisite: Russian 210. Every year.

**330. Russian Topics. 4 semester hours.**

Study of special subjects, chosen by the instructor and described in the course schedule each semester. May be writing intensive. Offered as need arises. This course may be repeated for credit.

**380. Methods for Teaching Foreign Language (K-12). 4 semester hours.**

Course to acquire an understanding of the history and rationale for foreign language instruction and of the relationship between theories of language learning and classroom practice. The student learns to plan, implement, and evaluate language instruction for students at the elementary and secondary school levels, and to enrich curriculum content to promote appreciation of the customs, values and history of other cultures. Field experience is included. Prerequisite: Completion of two 200-level courses in the target language or by permission of the instructor. Alternate years.

**490. Independent Study. Variable credit.**

This course may be repeated for credit.

**491. Internship. Variable credit.**

This course may be repeated for credit.



## Management

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Professors Pamela S. Schindler, Lowell E. Stockstill, David M. Vrooman, and Carol I. Young  
Associate Professors Wendy C. Gradwohl, Chair, and Wayne O. Maurer  
Assistant Professor Ronald P. Lucchesi  
Visiting Assistant Professor John R. Fenimore  
Visiting Instructor Alphonso T. Spence

### Requirements for Major

Tools Courses (16 semester hours)

- Management 210, or equivalent, 225, 226 and 260

Environments Courses (4 semester hours)

- Management 370 or 250

Core Courses (12 semester hours)

- Management 310, 330 and 340

Integration Course (4 semester hours)

- Management 460

Elective for depth and breadth (4 semester hours)

- Any Management course or suitable substitute

Required in Related Departments (12 semester hours)

- Economics 190, Economics elective and Mathematics 131 or equivalent

### Requirements for Minor

Any statistics course (Management, Mathematics, or Psychology), Management 225, 260, two Management electives (8 semester hours) and Economics 190.

### Course Listings

#### **210Q. Business and Economic Statistics. 4 semester hours.**

Descriptive and inferential statistical concepts and techniques and their application in collecting, classifying, interpreting, and presenting business and economic data. Note: Credit granted for only one of the following: Management 210, Mathematics 127 or 227, or Psychology 107.  
Prerequisite: Mathematics 131 or equivalent. Every year.

#### **225. Financial Accounting. 4 semester hours.**

Introductory course in which accounting processes, including fundamentals of income determination, are presented and demonstrated. Preparation and interpretation of financial statements, as well as other uses of accounting data, are emphasized. Prerequisite: Appropriate level on the Math Placement Exam. Every year.

**226. Managerial Accounting. 4 semester hours.**

Second of two courses required in introductory accounting. Explores various techniques for data accumulation, presentation, and interpretation used by management for decision-making, planning and control. Prerequisite: Management 225. Every year.

**250. International Business. 4 semester hours.**

Introduction to the broad area of international business. The social, economic and political environments of the multinational firm form the base on which the management structure, marketing processes and financing of the global corporation are studied. Prerequisite: Economics 190. Every year.

**260S. Organizational Behavior. 4 semester hours.**

Introduction to organizational behavior. Topics such as leadership, motivation, group dynamics, and organizational and work design covered. Writing intensive. Every year.

**290. Topics in Management. Variable credit.**

Seminar of selected topics. Open to all students. Offered as required. Some sections writing intensive.

**310. Operations Management. 4 semester hours.**

Quantitative, analytical approach to study of the production function. Included are the uses of schematic, graphic, mathematical and statistical analyses of issues in job design, plant location, layout, maintenance, inventory, production and quality control. Prerequisites: Management 210 and Economics 190. Every year.

**311. Research Methods. 4 semester hours.**

Basic research methodology is explored from definition of a problem through research and data collection to analysis, information reporting and storage. Prerequisite: Statistics (Mathematics, Management, or Psychology). Writing intensive. Alternate years.

**325, 326. Intermediate Accounting I and II. 4 semester hours each.**

Sequential in-depth study of financial statements, accounting concepts, accounting principles, and alternative procedures and practices. Current professional pronouncements included where appropriate. Prerequisite: Management 226. Every year.

**327. Cost Accounting. 4 semester hours.**

Upper-level course covering the methods of determining product costs, their effective control, and their use for managerial decision-making. Prerequisite: Management 226. Alternate years.

**330. Financial Management. 4 semester hours.**

Introduction to basic financial concepts, principles and analytic techniques of financial management. Emphasis is on financial planning and managing assets. Topics include financial objectives, organizational form, current asset management, capital budgeting, cost of capital, financial leverage, dividend policy and valuation. Prerequisites: Management 210, 225 and Economics 190. Every year.

**340. Marketing Management. 4 semester hours.**

Course stressing management applications of fundamental theories and concepts within the areas of market selection, product development, distribution management, pricing and promotional strategy. Prerequisites: Appropriate level on the Math Placement Exam and Economics 190. Every year.

**360S. Human Resource Management. 4 semester hours.**

Introduction to the fundamentals of human resource management. Coverage of the classic topics including the philosophy and assumptions underlying the field, the legal background (EEO, OSHA, ADA, etc.), job analysis, personnel planning and recruitment, employee selection, issues in employment testing, training, employment development and compensation systems. Prerequisites: Any course meeting the General Education requirement in Social Institutions, Processes and Behavior and Economics 190. Writing intensive.

**370. Legal Environment of Business. 4 semester hours.**

First course in law that introduces legal thought, legal analysis and court systems. Emphasizes preventative law, i.e., avoidance of legal conflict, and develops a liability approach with a focus on criminal, tort and contract law. The case method approach is used to develop and apply legal principles. Prerequisite: Junior standing. Writing intensive. Every year.

**381. Applied Management I. Variable credit.**

Applied Management credit units are earned when a student participates in a faculty-guided, skills-based Applied Management program. Although specific programs differ based on the needs of the client, each program has an experiential as well as an academic component. Courses may be taken credit/no credit unless the hours are to be counted toward the elective requirement of the management major. The student is expected to budget a minimum of three hours per week for each credit unit earned. Each program has its own specific academic output. Some programs are group efforts; others require participation by individuals. The student may enroll for a maximum of six semester hours of Applied Management during the Wittenberg career.

Prerequisites for Applied Management projects vary according to the project; selection for assignment to a project is competitive. See also 481 and 482.

**390. Topics in Management. Variable credit.**

Seminar of selected topics. Restricted to advanced majors in management or those obtaining permission of instructor. Some sections writing intensive. Offered as required.

**425. Advanced Accounting. 4 semester hours.**

More specialized aspects of accounting such as consolidations and international and fund accounting. Prerequisite: Management 325. Alternate years.

**426. Federal Taxation. 4 semester hours.**

Study of federal taxes with emphasis on individual income taxes. Prerequisites: Management 325. Alternate years.

**427. Auditing. 4 semester hours.**

Auditing standards, auditing procedures, professional ethics and auditor's reports. Prerequisite: Management 325. Writing intensive. Alternate years.

**430. Investments Analysis. 4 semester hours.**

Introduction to the various types of financial investments including stocks, bonds and options. Methods of evaluating the profitability and risk of these investments individually and as part of a portfolio of securities are presented. Prerequisite: Management 330. Every year.

**441. Advertising and Promotion. 4 semester hours.**

A course analyzing the creative element of advertising with special emphasis on applying this understanding to actual business or organization problems. Assessment is based on individual and group work on campaigns as well as class participation. Ad plans and creative/copy plans are presented and defended in class, replacing exams. Class involves lecture and discussion. Prerequisite: Management 340 or permission of instructor; non-majors welcome. Writing intensive. Every year.

**460. Strategic Planning and Policy. 4 semester hours.**

Integration of all preceding management courses through the study of the function and responsibility of top-level management. The organization is viewed as a total system from the position of the policy-maker and administrator. The leadership of the chief executive, the environmental and institutional constraints of the organization, and the problems of implementing and integrating organizational objectives and public goals are examined. Prerequisites: Management 310, 330, 340, and 370 or 250. Writing intensive. Every year.

**470. Business Associations. 4 semester hours.**

The topics addressed include agency, partnership, corporations and the regulation of business. Although the course centers on business statutes, cases are used to illustrate and update the law. The course is evaluated by a variety of writings: short answer and essay quizzes; legal memorandum; and legal research paper. Class participation is also included based on discussions and Socratic dialogues. Some sections may be writing intensive. Prerequisite: Management 370. Every year.

**480. Small Business Management. 4 semester hours.**

Designed primarily for senior management majors. The student works with an actual small business as a member of a team observing and studying procedures, analyzing actual business problems and opportunities, and making recommendations for action. Class sessions involve case analysis. Class project is a client report. Writing intensive. Every year.

**481. Applied Management II. Variable credit.**

Applied Management credit units are earned when a student participates in a faculty-guided, skills-based Applied Management program. Although specific programs differ based on the needs of the client, each program has an experiential as well as an academic component. Courses may be taken credit/no credit unless the hours are to be counted toward the elective requirement of the management major. The student is expected to budget a minimum of three hours per week for each credit unit earned. Each program has its own specific academic output. Some programs are group efforts; others require participation by individuals. The student may enroll for a maximum of six semester hours of Applied Management during the Wittenberg career. Prerequisites for Applied Management projects vary according to the project; selection for assignment to a project is competitive. See also 481 and 482.

**482. Applied Management III. Variable credit.**

Applied Management credit units are earned when a student participates in a faculty-guided, skills-based Applied Management program. Although specific programs differ based on the needs of the client, each program has an experiential as well as an academic component. Courses may be taken credit/no credit unless the hours are to be counted toward the elective requirement of the management major. The student is expected to budget a minimum of three hours per week for each credit unit earned. Each program has its own specific academic output. Some programs are group efforts; others require participation by individuals. The student may enroll for a maximum of six semester hours of Applied Management during the Wittenberg career. Prerequisites for Applied Management projects vary according to the project; selection for assignment to a project is competitive. See also 481 and 482.

**490. Independent Study. Variable credit.**

Every year.

**491. Internship. Variable credit.**

Every year.

**498. Senior Thesis. 6 semester hours.**

Year course.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: Declared major in Management, 3.500 GPA, 3.500 GPA in Management classes, Management 310, 330 and 340, and approval of the Department Chair.

## Marine Science

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Professors Ronald deLanglade (Biology), Horton H. Hobbs III (Biology), Timothy L. Lewis (Biology), David L. Mason (Biology), John B. Ritter (Geology)  
Associate Professors Kathleen A. Reinsel (Biology), James M. Welch (Biology), Director, and Michael J. Zaleha (Geology)

The program in Marine Science is designed for students who desire a solid foundation in the field, including Marine Biology and Oceanography. A fundamental goal of the minor is to allow students to explore the interdisciplinary nature of marine science and the connections among its subdisciplines. In addition to required coursework, students must participate in a marine field experience and conduct a research project or other significant work on a marine topic. This minor is available to students in any major, and would especially benefit those students interested in pursuing graduate work in a marine field.

### Requirements for the Minor

The minor in Marine Science requires:

- At least 22 semester hours, consisting of two core courses, Marine Science 200 Oceanography and Biology 247 Marine Ecology; either Geology 150 Physical Geology or Geology 160 Environmental Geology; and at least 8 semester hours in elective courses (listed below).
- A marine field experience
- A marine research project or other significant professional marine experience such as an internship

At least 8 semester hours taken beyond the core courses must come from outside the student's major department. Up to 4 semester hours of directed research or independent study may be included in the 8 semester hours of elective courses. Note that most courses offered during the Duke University Marine Laboratory's semester program will count toward minor requirements. Many Duke courses without direct equivalents could count as MRSC 250 Topics in Marine Science. See the program director for a full list of course equivalents.

Wittenberg programs that fulfill the requirement for a marine field experience include Extended Field Studies (Biology 258) taken in conjunction with either Biology 239 Biology of Marine Invertebrates or Biology 247 Marine Ecology, the Duke University Marine Laboratory semester program, and the Bahamas summer program. Other possibilities include summer internship programs at marine laboratories. This requirement may be fulfilled simultaneously with the research experience if the research is conducted in a field setting. The program director's approval is required for the field experience if it is not through a Wittenberg program.

Students must complete a research project on a marine topic or otherwise participate in a professionally-related marine experience such as an internship (Marine Science 492 Directed Research or Marine Science 490 Internship). Up to 4 semester hours of either (but not both) may be included in the minimum 22 semester hours required for the minor. The project need not be taken for credit, but must be of a scope worthy of receiving academic credit. At the conclusion of the project or internship, the student will present the results of the research in written, oral, or professional poster format (format to be chosen in consultation with the student's research or internship adviser). Students have the opportunity to conduct this research on campus during the academic year, during Wittenberg's Bahamas summer program, during the semester program at the Duke University Marine Laboratory or other similar, accredited programs approved by the Marine Science Committee. Similarly, an internship with a government agency such as the National Atmospheric and Oceanographic Administration or the U.S. Geological Survey would fulfill this requirement. In addition, NSF-funded Research Experiences for Undergraduates, other research-based internships at marine laboratories, and summer-long research projects conducted at a marine laboratory with Wittenberg faculty members, which are eligible for Faculty Research Fund Board awards, would be appropriate. The Marine Science Committee will evaluate research programs and internship opportunities not affiliated with Wittenberg's curriculum on an individual basis.

### **Course offerings**

#### **104. Topics in Marine Science Seminar. 1-4 semester hours.**

Study of selected topics relating the student to the marine environment and society and of the conflicts between people and their environment. Topics vary by instructor. Offered subject to demand and availability of faculty. Counts as an elective toward a minor in marine science if taken before the core courses, and can serve as an alternate prerequisite to Marine Science 200 if taken for 4 semester hours.

#### **200. Oceanography. 4 semester hours.**

Oceanography is one of the most integrative of all the sciences, and this fact will be reflected in this course. The course is an introduction to the major systems of the marine environment: physical, chemical, biological, and geological, with an emphasis on the interactions and interconnections of these four traditional disciplines of oceanography. Topics include origin of the oceans, plate tectonics, major ocean currents, the role of the ocean in atmospheric dynamics, life in the oceans, and cycling of energy, heat, and inorganic nutrients. The course will also focus on human impacts on ocean systems and the impacts that the oceans now have and can have in the future on human societies. Prerequisite: Math placement score of 22 and any of one of 1) Biology 170 or 180; 2) Biology 248; 3) Chemistry 121; 4) Geology 150 or 160; 5) Physics 200; 6) Marine Science 104; or 7) Biology 141 and permission of the instructor.

#### **250. Topics in Marine Science. 1-5 semester hours.**

Study of selected topics in marine science. Topics vary with instructor. The course counts as an elective toward a minor in marine science. This course may be repeated for credit.

#### **490. Internship. 1-5 semester hours.**

**492. Directed Research. 1-5 semester hours.**

**494. Seminar in Marine Science. 1-5 semester hours.**

Topics of particular interest to students minoring in marine science. Counts as an elective toward a minor in marine science. Offered subject to sufficient demand by students and availability of faculty. This course may be repeated for credit.

**Biology**

Biology 141N Introduction to Marine Biology. *4 semester hours.*

Biology 234 Morphology of Nonvascular Plants. *5 semester hours.*

Biology 247 Marine Ecology. *5 semester hours.*

Biology 239 Biology of Marine Invertebrates. *5 semester hours.*

Biology 248 Comparative Communities - Bahamas. *5 semester hours.*

Biology 258 Extended Field Studies (counts toward the minor if linked to Biology 141

Introduction to Marine Biology, Biology 239 Biology of Marine Invertebrates, or Biology 247 Marine Ecology). *0-2 semester hours.*

Biology 341 Limnology. *5 semester hours.*

**Economics**

Economics 350 Environmental and Natural Resource Economics. *4 semester hours.*

**Geology**

Geology 150 Physical Geology. *5 semester hours.*

Geology 160 Environmental Geology. *5 semester hours.*

Geology 260 Sedimentology. *5 semester hours.*

Geology 340 Earth History. *5 semester hours.*

## Mathematics

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Professors Douglas M. Andrews and Alan C. Stickney  
Associate Professors William J. Higgins and Brian J. Shelburne, Chair  
Assistant Professor Adam E. Parker

### Requirements for Major (B.A.)

Required in Mathematics: Forty-two semester hours.

Required: Mathematics 201, 202, 205, 210, and 227

Electives: Twenty semester hours selected from one of the three tracks below:

Mathematics: any two of Mathematics 360, 365, or 370, plus twelve additional semester hours, which must include at least one 300+ level course. Students may not use Mathematics 327 or 337 as an elective for this track.

Applied Mathematics: Mathematics 215, 260, either 320 or 345, plus eight additional semester hours of 300+ level courses.

Mathematical Science with a Concentration in Statistics: Mathematics 228, any two of 327, 328, or 337, plus eight additional semester hours, which must include at least one 300+ level course.

Senior Capstone Experience: Two or more semester hours from one of the following: Mathematics 460, 490, or 499.

Required in Computer Science: Five semester hours  
Computer Science 150.

### Requirements for Major (B.S.)

Required in Mathematics: Fifty semester hours:

Required: Mathematics 201, 202, 205, 210, 227, 360, 365, and 370

Electives: Sixteen additional hours in mathematics.

Senior Capstone Experience: Two or more semester hours from one of the following: Mathematics 460, 490, or 499. Note: majors considering graduate school are strongly encouraged to complete a senior independent study (Mathematics 490) or a research project / honors thesis (Mathematics 499).

Required in Computer Science: Nine semester hours.  
Computer Science 150 plus one additional course numbered 250 or above.

Required in Other Departments: Eight semester hours.

A sequence of courses in one department (Biology, Chemistry, Geology, Physics, Psychology, or another approved by the department) that is approved by the Department of Mathematics and computer Science.

### **Requirements for Minor in Mathematics**

Required in Mathematics: Twenty semester hours.

Mathematics 201, 202, 210, one course from Mathematics 205, 215, 227, 228, or 260, plus one course (of at least four semester hours) numbered 200 or above.

Required in Computer Science: Five semester hours.

Computer Science 150.

### **Requirements for Minor in Statistics**

Required in Mathematics: Twenty or Twenty-four semester hours.

Mathematics 131 or 201/202; 227, 228, and any two selected from 327, 328, or 337.

### **Licensure for Teaching in Mathematics**

Students interested in pursuing a course of study leading to a license to teach mathematics should contact their adviser or the Education Department for specific requirements.

### **Special Programs in Mathematics**

Computational Science — See Computational Science.

Computer Science — See Computer Science.

Engineering — See Engineering.

Statistics — See Minor above.

### **Course Listings**

#### **112Q. The Language of Mathematics. 4 semester hours.**

College-level experience with the logic, language and methods of mathematics through the study of topics from a variety of areas of mathematics. Not intended as or suitable for preparation for other mathematics courses. Prerequisite: Appropriate level on the Math Placement Exam. Every year.

#### **118Q. Mathematics for Elementary and Middle School Teachers. 4 semester hours.**

Study of number systems, number theory, patterns, functions, measurements, algebra, logic, probability and statistics with a special emphasis on the processes of mathematics; problem-solving, reasoning, communicating mathematically; and making connections with mathematics and between mathematics and other areas. Open only to students intending to major in education. Prerequisite: Appropriate level on the Math Placement Exam. Every year.

#### **119Q. Geometry with Computer Applications for Elementary and Middle School Teachers. 2 semester hours.**

Study of basic concepts of plane and solid geometry, including topics from Euclidean, transformational, and projective geometry and from topology. Includes computer programming experiences using Logo with a special emphasis on geometry and problem-solving. Prerequisite: Mathematics 118. Every year.

**120Q. Elementary Functions. 4 semester hours.**

Exploration of functions and their graphs and applications of functions in formulating and solving real-world problems. Examination of polynomial, rational, exponential, logarithmic, trigonometric and inverse trig functions. Discussion of limits and continuity. Intended for the student planning to take Mathematics 131 or 201 but whose high school preparation is insufficient for entering calculus directly. Prerequisite: appropriate level on the Math Placement Exam. Every year.

**127Q. Introductory Statistics. 4 semester hours.**

Study of statistics as the science of using data to glean insight into real-world problems. Includes graphical and numerical methods for describing and summarizing data, sampling procedures and experimental design, inferences about the real-world processes that underlie the data, and student projects for collecting and analyzing data. Open to non-majors only. (Note: A student may not receive credit for more than one of the following: Mathematics 127, Mathematics 227, Psychology 107, or Management 210.) Prerequisite: Appropriate level on the Math Placement Exam. Every year.

**131Q. Essentials of Calculus. 4 semester hours.**

A one-semester study of the fundamental concepts and techniques of single-variable differential and integral calculus. The majority of applications are drawn from management and the biological and social sciences; in particular, no trigonometric applications are covered. This course is intended to be a terminal course and does not satisfy the prerequisite for Mathematics 202. A student who plans to take more than one calculus course should enroll in Mathematics 201 instead of this course. (Note: A student cannot receive credit for both Mathematics 131 and 201.) Prerequisite: Mathematics 120 or appropriate level on the Math Placement Exam. Every year.

**201Q. Calculus I. 4 semester hours.**

First course in a detailed two-semester introduction to a graphical, numerical, and symbolic approach to differential and integral calculus of one variable. (Note: A student cannot receive credit for both Mathematics 201 and 131.) Prerequisite: Mathematics 120 or appropriate level on the Math Placement Exam. Every year.

**202Q. Calculus II. 4 semester hours.**

Continuation of Mathematics 201. Prerequisite: Mathematics 201. Every year.

**205Q. Applied Matrix Algebra. 4 semester hours.**

Course in matrix algebra and discrete mathematical modeling. Study of the formulation of mathematical models, together with analysis of the models and interpretation of the results. Primary emphasis is on modeling techniques that use matrix methods. Prerequisite: Mathematics 201. Every year.

**210Q. Fundamentals of Analysis. 4 semester hours.**

Study of functions, set theory, sequences, the real number line, logic and methods of mathematical proof. Prerequisite: Mathematics 202. Writing intensive. Every year.

**212Q. Multivariable Calculus. 4 semester hours.**

Calculus of functions of several variables and associated analytic geometry. Prerequisite: Mathematics 202. Every year.

**215Q. Differential Equations. 4 semester hours.**

Study of elementary ordinary differential equations, with particular emphasis on techniques and applications using algebraic, numerical and graphical approaches. Prerequisites: Mathematics 202. Every year.

**221Q. Foundations of Geometry. 4 semester hours.**

Rigorous study of Euclidean and non-Euclidean geometry from an axiomatic point of view. The mathematics is studied in an historical context. Prerequisite: Mathematics 210. Writing intensive. Usually offered in alternate years.

**227Q. Data Analysis. 4 semester hours.**

This introductory statistics course is designed not only for students majoring or minoring in math, but for any student who would benefit from a more substantial introduction to the field - especially prospective teachers of mathematics or statistics, as well as students considering careers as statisticians or actuaries. Students will learn general principles and techniques for summarizing and organizing data effectively, and will explore the connections between how the data were collected and the scope of conclusions that can be drawn from the data. Also emphasized are the logic and techniques of formal statistical inference, with greater focus on the mathematical underpinnings of these basic statistical procedures than is found in other introductory statistics courses. Software for probability and data analysis is used daily. Prerequisites: Mathematics 131 or 201. (Note: a student may not receive credit for more than one of the following: Mathematics 127, Mathematics 227, Psychology 107, or Management 210.)

**228Q. Univariate Probability. 4 semester hours.**

Axiomatic and applied introduction to probability as the mathematical study of random processes and building and assessing stochastic models. Prerequisite: Mathematics 202. Usually offered in alternate years.

**271Q. Discrete Mathematical Structures. 4 semester hours.**

The mathematics of discrete sets, sets which are finite or at most countably infinite. Starting on the foundation of logic, set theory, and basic proof techniques, the course will cover various topics dealing with relations and functions, counting arguments, discrete probability, number theory, and graph theory. Prerequisite: Mathematics 131 or 201..

**320Q. Numerical Analysis. 4 semester hours.**

Introduction to the numerical solution of mathematical problems. Primary emphasis is on the development of computational techniques that can be implemented on a digital computer and methods for establishing error bounds for approximate solutions. Prerequisites: Mathematics 202 and 205 and Computer Science 150. Usually offered in alternate years.

**327Q. Statistical Modeling. 4 semester hours.**

In this second course in statistics, regression analysis is the main vehicle for illustrating the principles of statistical modeling in real-world contexts. After a brief review of the modeling unit from the end of the first data analysis course, students learn strategies for selecting and constructing models, criteria for assessing and comparing models, and tools for making formal inferences using these models. Class sessions include discussion of conceptual issues with practice in data analysis, and they put strong emphasis on interpreting the results of analyses. Students are required to collaborate on projects in which they design studies, collect and analyze data, and present their findings orally and in writing. Prerequisite: Mathematics 227. Writing Intensive. Offered alternate years.

**328Q. Mathematical Statistics. 4 semester hours.**

Theoretical introduction to the concepts and methods of statistical inference and a development of the distribution theory underlying such methods. Prerequisites: Mathematics 228. Usually offered in alternate years.

**337Q. Statistical Design. 4 semester hours.**

Whereas the introductory statistics sequence focuses primarily on exploratory and formal analysis of data that have already been observed, this course focuses primarily on how to design the comparative observational and experimental studies in which data are collected for formal analysis. Students will learn: (1) to choose sound and suitable design structures; (2) to recognize the structure of any balanced design built from crossing and nesting; (3) to assess how well standard analysis assumptions fit the given data and to choose a suitable remedy or alternative when appropriate; (4) to decompose any balanced dataset into components corresponding to the factors of a design; (5) to construct appropriate interval estimates and

significance tests from such data; and (6) to interpret patterns and formal inferences in relation to relevant applied context. Students are required to collaborate on projects in which they design studies, collect and analyze data, and present their findings orally and in writing. Prerequisite: Mathematics 227.

**345Q. Optimization. 4 semester hours.**

Optimization is a very successful area of applied mathematics and its applications are very broad and diverse. This course addresses the problem of doing the "best" that one can do, possibly subject to resource constraints. Simulation models allow one to determine how a function behaves as its variables change. Optimization models are used to determine the "optimal" values of these variables so that the function can be maximized or minimized. In this course, one learns how to recognize and formulate different types of optimization models, sometimes called "mathematical programming" models (e.g., unconstrained, linear programming, quadratic programming, and general nonlinear programming). One learns how to identify local and global solutions to these models and how to find these solutions by using various algorithms (e.g., steepest descent, Newton, BFGS, simplex, gradient projection, evolution). This course will present theory, methods, and applications equally. Both analytic and programming assignments will be given, together with exams. *Mathematica* will be used. This course is cross-listed as Computer Science 345. Prerequisites: Mathematics 201 and 205 and Computer Science 150.

**360Q. Linear Algebra. 4 semester hours.**

Introduction to abstract vector spaces with particular emphasis on the axiomatic method. Topics include Euclidean spaces, matrix spaces, function spaces, linear systems, linear independence and basis, inner product, orthogonality and linear functions. Prerequisites: Mathematics 205 and 210. Writing intensive. Every year.

**365Q. Abstract Algebra. 4 semester hours.**

Introduction to various algebraic structures with particular attention to groups. The axiomatic method is emphasized throughout the course. Prerequisites: Mathematics 205 and 210. Writing intensive. Every year.

**370Q. Real Analysis. 4 semester hours.**

Course in the basic theoretical concepts of single variable calculus: continuity, differentiation, integration and infinite series. Prerequisite: Mathematics 210. Writing intensive. Every year.

**380Q. Topics in Mathematics. Variable credit.**

Study of special topics not included in other departmental offerings. Offered occasionally according to the needs and interests of students and/ or faculty. This course may be repeated for credit.

**460Q. Senior Seminar. 2 semester hours.**

In this capstone experience for the math major, the student works individually and in groups to synthesize knowledge from and seek interrelationships among areas of mathematics previously encountered. Includes written and oral presentations, bibliographic research, and modeling and problem-solving projects. Prerequisite: Senior math major status or permission of instructor. Every year.

**480Q. Topics in Mathematics. Variable credit.**

Study of special topics not included in other departmental offerings. Offered occasionally according to the need and interests of students and/or faculty. This course may be repeated for credit.

**490. Independent Study. Variable credit.**

Individual study by the advanced student of a topic that is beyond the scope of regular courses. Prerequisite: Approval of the instructor directing the study. This course may be repeated for credit.

**491. Internship. Variable credit.**

Open to the junior or senior mathematics major by departmental permission only.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the department chair.

## Music

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Professors Donald A. Busarow, Trudy Faber, Daniel I. Kazez, and David Schubert, Chair  
Associate Professors Christopher Durrenberger, and Joyce L. Wendel

Assistant Professor Brandon Jones

Adjunct Professor Stephen C. Siek

Adjunct Instructors Lori M. Akins, Colvin M. Bear, Peng-Hsin Chen, Lesa DeBorde, Basil Fett, David Freedy, David Hapner, Joseph H. Hesseman, Lee M. Merrill, Lawrence H. Pitzer, Denver Seifried, Diane Slagle, Mark E. Smarelli, Carol Todd, Richard W. York, and Daniel Zehringer  
Sound Recording Engineer Lloyd Bryant

**To the student: To declare one of the majors in music, it is necessary to assess proficiency in music fundamentals and musical literacy either by taking the Music Placement Examination and achieving placement in Music 155 Intermediate Music Theory I or by successfully completing Music 102A Basic Music Theory & Skills. For acceptance into the BME or any of the BM programs, a satisfactory audition is required.**

### **Preliminary to Curricula: All Music Degree Programs**

- MUSI 102A Basic Music Theory & Skills 4 semester hours
- MUSI 120 Functional Keyboard Skills 2 semester hours

### **Music Major, Bachelor of Arts Degree**

#### *For Credit*

- MUSI 155 Intermediate Music Theory I 2 semester hours
- MUSI 156 Intermediate Music Skills I 2 semester hours
- MUSI 257 Intermediate Music Theory II 2 semester hours
- MUSI 258 Intermediate Music Skills II 2 semester hours
- MUSI 259 Post-tonal Music Theory 2 semester hours
- MUSI 221 Advanced Keyboard Skills & Improvisation 2 semester hours
- MUSI 301H History of Western Music to 1750 4 semester hours
- MUSI 302H History of Western Music, 1750-1900 4 semester hours
- MUSI 303A History of Western Music since 1900 2 semester hours
  
- Applied Music Lessons 4 semester hours
- Music Ensemble 4 semester hours  
Participation in music ensemble/ensembles is required of all music majors every semester on campus in accord with the expectations published in the Music Student Handbook.
  
- Electives in Music, selected from two of the following groups: 10 semester hours

- Music theory courses (3-7): MUSI 251, 352, 355, 357, 450, or appropriate topics courses, MUSI 212 or 380;
  - Music history courses (4-8): MUSI 203, 205, 207, 208, 209, 210, 216, 217, 220, or appropriate topics courses, MUSI 212 or 380;
  - Additional applied music lessons or MUSI 350 & 351, Introduction to Conducting & Choral & Instrumental Conducting.
- MUSI 495, Senior Recital and Paper, or MUSI 498, Senior Project 2 semester hours

TOTAL SEMESTER HOURS 42 semester hours

*For Non-Credit*

- MUSI 199, Music Practicum
- Proficiency examinations

**Bachelor of Music Education Degree**

*For Credit (in music)*

- MUSI 155 Intermediate Music Theory I 2 semester hours
  - MUSI 156 Intermediate Music Skills I 2 semester hours
  - MUSI 257 Intermediate Music Theory II 2 semester hours
  - MUSI 258 Intermediate Music Skills II 2 semester hours
  - MUSI 259 Post-tonal Music Theory 2 semester hours
  - MUSI 221 Advanced Keyboard Skills & Improvisation 2 semester hours
  - MUSI 250 Technology for Music Educators 2 semester hours
  - MUSI 301H History of Western Music to 1750 4 semester hours
  - MUSI 302H History of Western Music, 1750-1900 4 semester hours
  - MUSI 303A History of Western Music since 1900 2 semester hours
  - MUSI 116C/216C Music in Contemporary Cultures or Musics of the World 4 semester hours
  - Applied Music Lessons, primary area 7 semester hours
  - Applied Music Lessons, keyboard area 2 semester hours
  - Music Ensemble 4 semester hours
- Participation in music ensemble/ensembles is required of all music majors every semester on campus in accord with the expectations published in the *Music Student Handbook*.
- MUSI 350 Introduction to Conducting 2 semester hours
  - MUSI 351 Choral & Instrumental Conducting 2 semester hours
  - MUSI 357 Orchestration 3 semester hours
  - MUSI 450 Form & Analysis 4 semester hours
  - MUSI 231-234 Instrumental methods & techniques 4 semester hours
    - MUSI 231, Woodwind Instruments

- MUSI 232, Brass Instruments
- MUSI 233, Percussion Instruments
- MUSI 234, String Instruments
- MUSI 235 Introduction to Vocal Pedagogy & Diction 2 semester hours
- MUSI 466 Marching Band Techniques 1 semester hour
- MUSI 165 Introduction to Music Education 3 semester hours
- MUSI 463 General Music Methods 4 semester hours
- MUSI 464 Choral Music in the Schools 3 semester hours
- MUSI 465 Instrumental Music in the Schools 3 semester hours
- MUSI 491 Internship 2 semester hours

The internship will constitute early placement in the student teaching setting several hours per day prior to the start of the student teaching experience.

TOTAL SEMESTER HOURS (in music) 74 semester hours

*For Non-Credit* (in music)

- MUSI 199, Music Practicum
- MUSI 497, Senior Portfolio Review  
Proficiency examinations and applied music examination for advanced standing

Recital or studio class performance annually

*For Credit* (in education)

- EDUC 103 or 104 Sociological Perspectives in Education or Philosophical Perspectives in Education 4 semester hours
- EDUC 111 Human Development & Learning Theory: Birth through Middle Childhood 2 semester hours
- EDUC 113 Human Development & Learning Theory Adolescence through Young Adult 1 semester hour
- EDUC 120 Introduction to Students with Special Needs 2 semester hours
- EDUC 308 Curriculum & Instruction for Secondary Schools 4 semester hours
- EDUC 312 Reading and Writing in Content Areas 4 semester hours
- EDUC 342 Including Students with Special Needs in Middle School & Secondary Classes 2 semester hours
- EDUC 495 Student Teaching 10 semester hours

TOTAL SEMESTER HOURS in Education 29 semester hours

*For Non-Credit* (in education)

Successful completion of the State Board of Education Examinations

**Bachelor of Music Degree**

With three tracks in semester hours	Performance	Church	Music Composition
<i>For Credit</i>			
MUSI 155 Intermediate Music Theory I	2	2	2
MUSI 156 Intermediate Music Skills I	2	2	2
MUSI 257 Intermediate Music Theory II	2	2	2
MUSI 258 Intermediate Music Skills II	2	2	2
MUSI 259 Post-tonal Music Theory	2	2	2
MUSI 221 Advanced Keyboard Skills & Improvisation	2	2	2
MUSI 301H History of Western Music to 1750	4	4	4
MUSI 302H History of Western Music, 1750-1900	4	4	4
MUSI 303A History of Western Music since 1900	2	2	2
MUSI 116C/216C Music in Contemporary Cultures or Musics of the World	4	4	4
Applied Music Lessons, primary area	16	16	12
MUSI 251 Beginning Composition with the Computer	0	0	2
MUSI 352 Advanced Composition with the Computer	0	0	2
Applied Composition or MUSI 251 and 352	4	4	0

Applied Music Lessons, secondary area	4	4	8
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(In voice performance, keyboard is the secondary area; in church music, organ or voice is the primary area, with the secondary area in the other; in composition, at least four credits in keyboard)

Music Ensemble	8	8	8
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Participation in music ensemble/ensembles is required of all music majors every semester on campus in accord with the expectations published in the *Music Student Handbook*.

MUSI 350 Introduction to Conducting	2	2	2
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MUSI 351 Choral & Instrumental Conducting	2	2	2
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MUSI 355 Studies in Counterpoint	0	0	3
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MUSI 357 Orchestration	0	0	3
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MUSI 355 or 357 Studies in Counterpoint or Orchestration	3	3	0
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MUSI 450 Form & Analysis	4	4	4
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MUSI 470 Problems in Pedagogy & Literature	4	0	0
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MUSI xxx Elective (Piano & Instrumental performance & Composition)	4	0	4
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MUSI 235 Introduction to Vocal Pedagogy & Diction (Voice performance)	2	0	0
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MUSI 236 Foreign Language Lyric Dictions (Voice performance)	2	0	0
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MUSI 220 Introduction to Church Music (Church Music)	0	4	0
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MUSI 421/422 Practical Church Music I & II	0	4	0
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MUSI 495 Senior Recital &	2	2	0
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Paper

MUSI 495 or 498 Senior Recital & Paper or Senior Project	0	0	2
TOTAL SEMESTER HOURS	79	79	78

*For Non-Credit*

MUSI 199, Music Practicum  
Proficiency examinations and applied music examination for advanced standing  
Recital or studio class performance annually

### Minor in Music

- Music 101A: Elementary Music Theory or equivalent 4 Semester Hours
  - Music 110A: Understanding Music or equivalent 4 Semester Hours
  - Eight credits elected from Music 201 to 220 and 301 to 320
  - Applied Music lessons or Music Ensemble 4 Semester Hours
- TOTAL SEMESTER HOURS 20

### Course Listings

#### I. Music Ensembles

All Wittenberg students may participate in a variety of choral and instrumental music ensembles, initial placement in which is determined by an interview or audition with the ensemble conductor. A total of four credits may be earned for successful participation in music ensemble and other production experience courses.

Music majors and minors must fulfill their ensemble requirement in their designated programs. Chamber ensembles are formed when sufficient interest warrants. Ensembles are graded Pass/Fail.

Participation in music ensemble/ensembles is required of all music majors every semester on campus in accord with the expectations published in the *Music Student Handbook*

#### Instrumental Ensembles

- 171. Brass Ensemble.
- 173A. Handbell Choir.
- 175. Jazz Ensemble.
- 177A. Chamber Orchestra
- 179A. Symphonic Band.

## **Choral and Vocal Ensembles**

- 181. Chapel Choir.
- 183. Opera Studio.
- 185. Wittenberg Choir.
- 187. Wittenberg Singers.
- 189. Chamber Singers.

## **Chamber Ensembles**

- 191. Flute Ensemble.
- 193. Chamber Ensemble.
- 195. Guitar Ensemble.
- 196. Musical Ensemble.

## **II. General Classes in Music**

Most of the following courses meet general education learning goals. The courses are arranged in accord with the guidelines given below, which serve as prerequisites self-assessed by the student.

Courses at the 100 level: Such courses, generally open to all students, assume no particular familiarity with music and tend to emphasize a substantial number of listening experiences.

Courses at the 200 level: The ability to read music is recommended. Some experience in listening to music is recommended. Further, successful completion of English 101 is recommended.

Courses at the 300 level: Because standard college-level music texts may be used, the ability to read music is required. The student should have the ability to read critically from musical scores and literary sources of the period. Junior standing is recommended.

### **100A. Fundamentals of Music, Studio. 4 semester hours.**

Practical approach to the fundamentals of music, meaning the student gains understanding of how music works through playing it on electronic pianos in a laboratory situation. Virtually no reading — all information is presented in class, demonstrated and then rehearsed by the student. The successful student is able to read music and improvise/harmonize melodies on the keyboard, adding suitable, if simple, accompaniments in several styles. This course is not for the student unwilling to maintain a regular practice schedule. Because the material is cumulative, the learning cannot be delayed. No prerequisite skills. Every year.

### **101A. Elementary Music Theory. 4 semester hours.**

Introductory course designed to give the student a fundamental understanding of how to compose music and how to analyze music using Western conventions developed over the past 1,000 years. The ability to read music is helpful, but not required; music reading will be learned

early in the course. Grading is based on several short exams and a term project. By the end of the semester, the student will be able to compose a short musical composition and create an elementary analysis of a major work of music. Both classical and popular music styles will be studied. Every year.

**102A. Basic Music Theory and Skills. 4 semester hours.**

This is an introductory course designed to give students a fundamental understanding of the basics of music theory. It is intended for the music major/minor who needs to review the basics and intends to continue the study of music at the advanced level. The course is open to non-music majors, the prerequisite being the ability to read music. The course begins with a study of the materials of music – intervals, triads, scales, key signatures, meter, and melodic structure. By the end of the semester, the student has been introduced to the basics of four-part writing with chords in root position. Grading is based upon daily assignments consisting of exercises in each of the areas studied and supplemented with analytical work provided by the instructor.

**110A. Understanding Music. 4 semester hours.**

Basic introductory course designed to enable the student to appreciate some of the great works of musical art. A practical knowledge of music is achieved through a variety of guided listening experiences illustrating the various forms and styles of music. May be writing intensive. Every year.

**112. Topics. 2-4 semester hours.**

Study of subjects, chosen by the instructor, designed to develop perceptive listening and musical literacy. May be writing intensive. This course may be repeated for credit.

**113A. Jazz Styles. 4 semester hours.**

Survey of America's "Classical" music, tracing the origins and evolution of this musical style through recordings, selected visual media, and when possible, live performances. Essentially organized by decades of the 20th century, some literature and artists responsible for sub-styles will be examined. It should be understood that because music is primarily an aural art, a substantial portion of the course will be concerned with developing aural skills essential for the study and recognition of music style differences. The ability to read music is not essential. The course requires both outside listening and reading. Evaluation will be based primarily on regular testing. Alternate years.

**116C. Music in Contemporary Cultures. 4 semester hours.**

Introductory experience in the music of various cultures, attentive to the great diversity characteristic of our 20th-century global village. What kind of thinking generates each and how these are valued within the culture are the kinds of issues probed for urban popular, folk music and serious artistic style in representative countries in the East, West and Third World. Every third year.

**203A. The Beatles and Their Predecessors: Musical Style and Social Context. 4 semester hours.**

A study of the evolution of American and British popular music from the mid-1950s to about 1970 with a focus on classic rock. Includes a study of the musical styles and social context of Elvis, the Beach Boys, the Beatles, and their immediate predecessors: Little Richard, Fats Domino, Chuck Berry, Jerry Lee Lewis and Buddy Holly. Course includes an analysis of numerous songs in terms of melody, rhythm, harmony and formal structure. In-class lecture, listening and discussion. Out of class listening, reading and writing (journals, short papers and major project). Ability to read music is highly recommended. Alternate years.

**205A. Women in Music. 4 semester hours.**

Study of women composers and performers who have contributed significantly to the music of Western civilization. Selected readings show the shifting attitudes throughout history toward women in music and the struggles of these women for recognition and survival. Emphasis is placed on perceptive listening skills as well as on an understanding of historical periods and musical styles through recordings and readings. Writing intensive. Every third year.

**207H. American Music, 1620-1900. 4 semester hours.**

Survey, through written and recorded examples, of the most important collections and musical compositions that characterized the cultural climate of the New World from colonial times through the 19th century. Musical materials associated with the Pilgrims, the Puritans, the Federalist era and the Civil War are examined, as well as the music of African-Americans, early American theatre and specific composers such as William Billings and Stephen Foster. Emphasizes a strong historical-sociological thrust, and it is hoped that the musical content promotes a greater understanding of America's early history. Writing intensive. Every year.

**208A. Twentieth-Century American Music. 4 semester hours.**

An aural-visual survey of music, which is distinctly American in character, produced by composers and performing artists of this century. Emphasizes the listening experience through five mediums of musical expression; music for the concert hall, music for films, music for the theatre, jazz and pop music. Regular testing and written reactions to selected music. Every year.

**209A. Bach and Handel. 4 semester hours.**

Course resulting from the celebration of the tercentennial anniversary of the births of Bach and Handel in 1685. Many of the greatest works of each composer, as well as the historical, political and religious contexts in which the music was written, are studied. Their impact on later music and their importance for the present are also considered. The course is designed for those who wish to gain a broader and deeper appreciation of the lives and music of these Baroque composers. Every third year.

**210H. The Symphony. 4 semester hours.**

Exploration of the many facets of the symphony orchestra. Topics covered will include not only the history and musical repertoire of the orchestra, but also its social and financial aspects. The organizational structure, present-day problems and future of the symphony orchestra in the United States will also be investigated. There will be listening assignments as well as a written project. Every third year.

**212. Topics. 2-4 semester hours.**

Courses, chosen by the instructor, designed to develop an understanding of significant musical elements through an examination of the interrelations between musical creativity and cultural environment. May be writing intensive. This course may be repeated for credit.

**216A/C. Musics of the World. 4 semester hours.**

The world's musics are as diverse as its lands, peoples, cultures, and languages. In this course, the student studies the music and culture of several disparate societies, seeking answers to the following questions: What technical aspects create a music's unique sound? What role does music play in the lives of its composers, performers and listeners, and what other elements of culture (language, art, literature, society, etc.) are relevant to the study of a society's music? Primarily the study of the musics and cultures of Africa, India, Indonesia and Latin America. Serves as an introduction to research methods in "ethnomusicology" (the study of music in culture). Grading is based on exams, a major paper and class participation. Writing intensive. Every year.

**217A. Aesthetics and Psychology of Music. 4 semester hours.**

Exploration of meaning in music by discussing problems of emotion, understanding, communication, expression, craftsmanship and value. Deals with function of music as an art and examines different aesthetic points-of-view. Every third year.

**220. Introduction to Church Music. 4 semester hours.**

Study of areas of concern common to all Christian denominations regarding the practice of sacred music in the context of worship. Deals with historical background of worship of the Judeo-Christian tradition, liturgies, theology of worship and the place of music in worship. Also included is a synopsis of hymnic materials as they have developed from the early Christian Church through the 20th century. Required for church music majors; however, it is open to any student interested in the study of worship and its music. Of particular interest to religion majors. Every third year.

**301H. History of Western Music to 1750. 4 semester hours.**

Study of the important musical developments from ancient Greek and early Christian music through the Medieval, Renaissance and Baroque eras and of the composers whose creativity brought new musical ideas to fruition. Styles and forms and the dynamics of change are

researched through listening, reading and analysis. Required for music majors. Writing intensive. Every year.

### **302H. History of Western Music, 1750-1900. 4 semester hours.**

Survey of music history and literature from the beginnings of the Classic style to the end of the Romantic era. Required for music majors. Writing intensive. Every year.

### **303A. History of Western Music from 1900. 2 semester hours.**

Begins with the origins of contemporary musical thought in the Post- Romantic style. Concentrates on Debussy to the present. Styles discussed include Impressionism, Neo-Classicism, Expressionism, Neo- Romanticism, Minimalism; and electronic music. Provides an awareness of the main musical style trends in the 20th century. Required for music majors. Prerequisite: Music 110 or equivalent. Writing intensive. Every year.

## **III. Applied Music Lessons**

All students at Wittenberg may take private lessons in Applied Music, the initial enrollment for which requires the permission of the Chair of the Department of Music. Students may register for one half-hour lesson per week in Applied Music and earn one credit. Should program or desire permit, a student may register for a one-hour lesson per week and earn two credits. If Applied Music registration satisfies a requirement of a declared music major or minor program, the additional fee is normally waived.

Two levels of applied instruction are available, with initial enrollment at the 100 level. Students may enroll in Advanced Applied Music at the 300 level after successfully completing an applied examination, usually given at the end of the second year of study, to determine competency. Applied Music Lessons are graded with letter grades unless a student chooses a Pass/Fail option.

- 121/321: Applied Organ.
- 122/322: Applied Piano.
- 123/323: Applied Harpsichord.
- 124/324: Applied Voice.
- 125/325: Applied Violin.
- 126/326: Applied Viola.
- 127/327: Applied Violoncello.
- 128/328: Applied Bass.
- 129/329: Applied Classic Guitar.
- 130/330: Applied Harp.
- 131/331: Applied Flute.
- 132/332: Applied Oboe.
- 133/333: Applied Clarinet.
- 134/334: Applied Saxophone.
- 135/335: Applied Bassoon.
- 136/336: Applied Horn.

- 137/337: Applied Trumpet.
- 138/338: Applied Trombone.
- 139/339: Applied Euphonium.
- 140/340: Applied Tuba.
- 141/341: Applied Percussion.
- 145/345: Applied Composition.

#### **IV. Intensive Music Classes**

The course Music 102A serves as prerequisite for courses in music theory and music skills taught as two pairs of offerings, Music 155/156 and 257/258. The courses in each pair should be taken concurrently and each pair should be taken consecutively.

##### **120. Functional Keyboard Skills. 2 semester hours.**

A course designed to develop basic keyboard skills needed by non-keyboard music majors. Rudiments of theory, keyboard technique and harmonization will be covered. Taught in the electronic keyboard lab. Every year.

##### **155. Intermediate Music Theory I. 2 semester hours.**

Begins with a review of the materials of music-scales, intervals and triads during the first two weeks of the semester. The text used is Walter Piston's *Harmony*. The course proceeds into harmonic progressions, first with the major mode and then the minor mode, along with the principles of voice leading, open and close positions, and rules of motion as set forth in the Common Practice Period (1600-1825). Chords of inversion, nonharmonic tones, cadence, dominant seventh chords and secondary dominants (borrowed chords) complete the course. Exercises in each of these areas are provided in the text and supplemented with analytical work provided by the instructor. Grading is based on daily assignments. It is recommended that Music 155 be taken concurrently with Music 156: Intermediate Music Skills I. Prerequisite Music 102 or equivalent skill level. Every year.

##### **156. Intermediate Music Skills I. 2 semester hours.**

(1) Sight Singing: Primary goal is to learn to perform at sight any pattern of pitches or rhythms in order to facilitate the student's playing, singing, conducting, composing and studying music. Grading is based on performance exams given daily. Significant and regular outside practice is required. In this, the first semester of Sight Singing, the following material is covered: Pitch, diatonic melodies using conjunct motion and disjunct motion within the tonic and dominant chords; C clefs; diatonic melodies using disjunct motion within the subdominant, supertonic and dominant seventh chords; and Rhythm: fundamental rhythm patterns in common simple and compound meters: irregular division of the beat. (2) Ear Training: The student learns to understand and notate pitch patterns and rhythm patterns presented aurally. Grading is based on dictation exams given approximately every other week. In this first semester of Ear Training, material covered will match that included in Sight Singing. In addition, harmonic dictation in major keys will be included. It is recommended that Music 156 be taken concurrently with Music

155: Intermediate Music Theory I. Prerequisite: Music 101 or equivalent or placement by examination. Every year.

**199. Music Practicum.**

Non-credit course required of all music majors every term on campus. Monitors attendance and participation by the music major at concert and recital events, special workshops and clinics. Every year.

**221. Advanced Keyboard Skills and Improvisation. 2 semester hours.**

A course designed to develop more advanced skills needed by non-keyboard music majors and assist them to pass their respective keyboard proficiencies. Prerequisite: Music 120 or equivalent skills. Taught in the electronic keyboard lab. Every year.

**235. Introduction to Vocal Pedagogy & Diction. 2 semester hours each.**

Applied class instruction in vocal techniques, emphasizing voice pedagogy, teaching procedures and materials, and lyric diction. The course includes a basic study in the pronunciation and application of the English language as it relates to singing through the use of the international Phonetic Alphabet. Applicable to all students of voice and required of all voice performance and music education majors.

**236. Foreign Language Lyric Dictions. 2 semester hours each.**

Presents a basic study in the pronunciation and the application of the Italian, German, and French languages as these relate to singing through the use of the International Phonetic Alphabet. Materials for the class include David Adams' *A Handbook of Diction for Singers*; Joan Wall's *International Phonetic Alphabet for Singers*; and examples of repertoire, primarily art songs, from a variety of periods and styles. Applicable to all students of voice and required of all voice performance majors.

**251. Beginning Composition with the Computer. 2 semester hours.**

Introduction to the basics of composition through the use of the computer and the synthesizer. The student will learn to compose music through short composition assignments, analysis of compositions and four composition projects. The student will also learn to navigate the MIDI environment as well as learn how to utilize the Finale music notation program.

**257. Intermediate Music Theory II. 2 semester hours.**

Since this course resumes study after a three-month recess, the first week is spent reviewing all four-part writing principles of the Common Practice Period, beginning with secondary dominants, the last area studied in Music 155. The text used is Walter Piston's *Harmony* (continued from Music 155). The course proceeds with studies in musical texture, diminished seventh chords, non-dominant sevenths, dominant ninths, 11ths, 13ths, chromatically altered chords, the

Neapolitan sixth, augmented sixths, and other chromatic chords. A final project consists of an original composition based upon a text selected by the student, an original melody and four-part harmonization incorporating as much of the harmonic vocabulary available to the student following completion of this course. Daily exercises in each of the areas studied are provided in the text supplemented with analytical work provided by the instructor. Grading is based on results of daily assignments. It is recommended that Music 257 be taken concurrently with Music 258: Intermediate Music Skills II. Prerequisite: Music 155. Every year.

**258. Intermediate Music Skills II. 2 semester hours.**

The following material is covered: Pitch: chromatic melodies in major and minor, medieval modes, highly chromatic melodies, modulation and extended melodies; rhythm: syncopation, complex syncopation and musical excerpts (Medieval through Modern). Ear Training: The student learns to understand and notate pitch patterns and rhythm patterns presented aurally. Grading is based on dictation exams, given approximately every other week. Material covered will match the work being done in Sight Singing. In addition, harmonic dictation in major and minor keys will be included. It is recommended that Music 258 be taken concurrently with Music 257: Intermediate Music Theory II. Prerequisite: Music 156. Every year.

**259. Post-Tonal Music Theory. 2 semester hours.**

An introduction to the basic theoretical concepts for post-tonal music of the 20th century. Students will also review the latest theoretical tools in analyzing and creating post-tonal music. The student's grade will be based on homework assignments and tests. Prerequisite: Music 257 or permission of the instructor.

**350. Introduction to Conducting. 2 semester hours.**

Introduces and develops the skills necessary for a musician to conduct an ensemble. The style and mechanics of the physical art of conducting are discussed each class period. The student applies this knowledge by conducting an ensemble consisting of members of the class. A daily grade will be given for individual preparation and class participation. There will be discussions and written exams covering musical terminology and instrumental transposition as found in scores. Each week exercises that develop coordination and rhythm will be performed and graded. The course will conclude with a discussion of various methods of score study and score preparation. Prerequisites: Music 257, 258, or permission of instructor. Alternate years.

**351. Choral and Instrumental Conducting. 2 semester hours.**

Continuation of Music 350. Prerequisite: Music 350.

**352. Advanced Composition with the Computer. 2 semester hours.**

Advanced techniques of musical composition utilizing MIDI. The topics will include counterpoint using the Finale notation program; sequencing using the Performer sequencing program; how to work with MIDI files, patch design and time code; and composing for video.

Grading will be based on short composition assignments as well as a major audio-for-video project.

**355. Studies in Counterpoint. 3 semester hours.**

Designed to develop an awareness and understanding of contrapuntal writing and techniques through reading, analysis of musical examples, workbook exercises and original composition. Prerequisites: Music 257 and 258. Alternate years.

**357. Orchestration. 3 semester hours.**

The student learns to write for each instrument found in a concert band and an orchestra and to write for these instruments in various combinations. The course also deals with the principles of scoring for a concert band and an orchestra as well as solutions to problems one encounters in making a score. The course uses a lecture/discussion format. The student's grade will be based on a combination of assignments, quizzes, a written midterm exam and a final orchestration project. Prerequisites: Music 257 and 258. Alternate years.

**380. Topics in Music. 2-4 semester hours.**

Designed for the major in music, this course may explore intensively such topics as score reading, advanced conducting, composition and the art of accompaniment, when student interest and faculty availability warrant. Prerequisite: Permission of instructor. May be writing intensive. Course may be repeated for credit.

**421 and 422. Practical Church Music I and II. 2 semester hours each.**

Devoted to developing the skills for the parish musician, including service playing and preparation, hymn playing and improvisation, choir preparation and development, and organ pedagogy. Required of church music majors. Prerequisite: Music 220. Offered as needed.

**450. Form and Analysis. 4 semester hours.**

Comprehensive study of analytical techniques designed to give the student the tools for understanding the compositional processes of a wide spectrum in music. Prerequisite: Music 257 or permission of instructor. Alternate years.

**470. Problems in Pedagogy and Literature. 4 semester hours.**

Course in group and private teaching of a specific applied instrument or of the voice and its literature. Includes aims, objectives, and procedures of applied teaching and principles of learning. Prerequisite: Permission of instructor. Offered as needed.

**490. Independent Study. 2 or more semester hours.**

Individual project as arranged by the student with the supervising professor and the department chair. May be writing intensive. Every year. This course may be repeated for credit.

**491. Internship. 2 to 4 semester hours.**

Supervised learning-work experience at an on-or off-campus site. Generally pursued during the senior year. Usually involves a written report, a journal, or other assignments. Every year. This course may be repeated for credit.

**495. Senior Recital and Paper. 2 semester hours.**

Presentation of a full-length recital in the primary area of applied music study. A challenging program to be determined in consultation with the applied music teacher. Designed as a culmination of preceding studies. A written paper of moderate length and relating to some aspect of the program is also required. Required of Bachelor of Music degree students. An oral examination, reviewing and assessing the student's previous work in all areas of the music major, concludes the course. Prerequisite: At least three terms of advanced study in the primary area of applied music, senior standing and concurrent registration in the area of advanced applied study. Writing intensive. Every year

**496. Senior Recital and Paper with Honors. 2 semester hours.**

Prerequisite: 3.50 GPA, applied lessons at the 300-level, and permission of the Department Chair.

**497. Senior Portfolio Review. No credit.**

Presentation of selected class work and related materials and resources, and the demonstration of musical skills and competencies in an oral examination format before a committee of three faculty members. Required of the major in music education. The review and examination should occur at the beginning of the senior year and at least one full semester prior to the student taking Education 495: Student Teaching. Every year

**498. Senior Project. 2 semester hours.**

Full-scale investigation of a selected topic or a production of a creative project. Usually presented in a written form. The project is juried by a committee of three faculty members. Both the project and the committee are determined by the end of the student's junior year and in consultation with the academic adviser and the Department Chair. An oral examination, reviewing and assessing the student's previous work in all areas of the music major, concludes the course. Writing intensive. Every year.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

**V. Music Education Classes**

**165. Introduction to Music Education. 3 semester hours.**

Comprehensive survey of the problems and the scope of music education in the school. Includes the development of fundamental, instrumental, and vocal skills and teaching techniques. Also developed is the ability to use effectively a fretted instrument as a pedagogical tool. Includes field-based experience. Alternate years.

**231, 232, 233, 234, 235: Vocal and Instrumental Teaching Methods/Classes.**

Applied class instruction in various groups of instruments and in vocal techniques with emphasis on teaching techniques and procedures. Teaching materials are surveyed. At least two courses each year.

- 231: *Woodwind Instruments.*  
*1 semester hour*
- 232: *Brass Instruments.*  
*1 semester hour*
- 233: *Percussion Instruments.*  
*1 semester hour*
- 234: *String Instruments.*  
*1 semester hour*
- 235: *Introduction to Vocal Pedagogy and Diction.*  
*2 semseter hours*

**250. Technology for Music Educators. 2 semester hours.**

A course that will introduce the student to the basics of technology as it relates to teaching music in the schools. The student will gain general skills and knowledge of current technology in the following areas: the Internet, computer-assisted instruction, desktop publishing, music notation, music sequencing, digital audio and multimedia. The student's grade will be based on quizzes and the completion of six projects. Prerequisite: Music 102 and 155, or permission of the instructor.

**463. General Music Methods. 4 semester hours.**

Intensive study of materials and methods used in teaching music pre-K through Grade 12 by a music-teaching specialist, including classroom courses such as general music and music appreciation. Also includes exploratory teaching in the schools. Prerequisites: Music 165 and Education 103 or 104 or permission of instructor. Alternate years.

**464. Choral Music in the School. 3 semester hours.**

Study of materials and methods for teaching music in junior, middle and senior high schools with emphasis upon classroom courses such as music history, music theory, etc., as well as the study of vocal problems and techniques of the changing voice and its application to junior and senior high school choral groups. Includes exploratory teaching in the public school. This course

satisfies requirements for a teaching licensure in the area of music. Prerequisite: Music 165 and Education 103 or 104. Alternate years.

**465. Instrumental Music in the School. 3 semester hours.**

Integrated course including the problems involved in the organization and administration of an instrumental music program. Includes an introduction to computer software specifically designed for music education and administration. Laboratory experience in the care and repair of instruments and the purchase of supplies and equipment. Includes exploratory teaching. Prerequisites: Music 165, 231, 232, 233, and 234 and Education 103 or 104. Alternate years.

**466. Marching Band Techniques. 1 semester hour.**

Practical course dealing with the organization, planning and design requisite for performances given by the marching band. Includes the use of computer software especially designed for charting these performances. Prerequisites: Music 165, 231, 232, and 233. Alternate years.

## Philosophy

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Professor Don Collins Reed

Associate Professors Miguel Martinez-Saenz and Nancy A. McHugh, Chair

Visiting Assistant Professor Erinn C. Gilson

### Requirements for Major

20 semester hours from Critical Thinking / Critical Theory

- 4 semester hours in Logic and Critical Reasoning (110R)
- No more than 8 semester hours at the 100-level
- At least 8 semester hours at the 300- or 400-level, in addition to the Historical / Professional sequence (310, 311, 312, and 400)

16 semester hours in the Historical / Professional sequence

- 12 semester hours: a three-course sequence in the history of Western philosophy
  - Ancient and Medieval Philosophy (310)
  - Modern Philosophy (311)
  - Contemporary Philosophy (312)
- 4 semester hours: Senior Seminar (400)

### Requirements for Minor

- 8 semester hours: the first two courses in the history of Western philosophy (310, 311)
- 12 semester hours of elective courses, outside the history of Western philosophy sequence, with no more than 4 semester hours at the 100-level

### Course Listings

#### **102R. Introduction to Philosophy. 4 semester hours.**

This course is an introductory examination of the basic areas of philosophy, addressing questions like the following: How do we know if an action is right or wrong, and are any actions universally wrong? Is "beauty" really only in the eye of the beholder, or are there objective standards in the visual, musical, and literary arts? What sorts of things exist, for instance, do any non-physical things (such as minds, souls, or spirits) exist? Do we have free will, or are our behaviors and thoughts determined by chemical and physical events in our brains? Is knowledge possible and, if so, how do we know what we know? And is there a genuine difference between reasoning and coercion, between persuasion and manipulation, and how can we tell? Every year.

**103R. Ethics and Identity. 4 semester hours.**

An introductory course in ethics and social identity, exploring the ways our moral principles and ethical ideals are related to our places and identities within concrete social systems. The goals of the course are to teach a method of moral decision-making, to enable students to understand how moral norms are in some sense relative and yet also in some sense objective, to explore ways that we are all to some extent selfish and yet to some extent always already in relations of interdependence and cooperation with others. Primary texts by theorists such as J.S. Mill, Kant, Hume, and Aristotle are studied.

**104R. Knowledge and Social Change. 4 semester hours.**

Introductory course in theories of knowledge, i.e., epistemology. The goal of the course is to help students understand that the epistemologies we hold have a substantial bearing upon how we live and that certain kinds of epistemologies are more conducive to more meaningful and ethical lives for individuals and for the flourishing of groups and communities.

**110R. Logic and Critical Reasoning. 4 semester hours.**

An introduction to traditional and symbolic logic that typically includes: (1) informal fallacies, (2) syllogistic logic, and (3) elementary sentential and predicate logic. Students are required to construct proofs using a variety of formal methods. Every semester.

**200R. Introductory Topics. 0-4 semester hours.**

Introductory examination of the work of a philosopher or philosophical school or of an area of philosophical study such as feminism, race theory, or existentialism. This course may be repeated for credit. Every year.

**203R. Mysteries of Self and Soul. 4 semester hours.**

This is a course focusing on issues at the intersection of the philosophy of mind and psychology and the philosophy of religion. Problems discussed include the mind-brain/body problem, the problem of free will, the immortality of the soul, and the possibility of spirit-possession. The goal of the course is to bring students into an examination of their understandings of their own metaphysical, physical, and spiritual constitutions. Primary texts by theorists such as James, Freud, and Beauvoir are studied.

**204R. Philosophy of Women's Lives. 4 semester hours.**

A course in global feminism that begins with studying feminist epistemologies and feminist postmodernism, and moves between theoretical readings about women's lives and actual first person narratives by women about their lives. The course is based on the belief that studying actual women's lives and words leads to a better understanding of theories about women's experiences.

**205R. Philosophy of Revolution in Latin America. 4 semester hours.**

The course focuses its attention on selected Latin American philosophers and the role philosophical thought plays in revolutions. The course explores the context of Latin American revolutions primarily in the 20th century. The goal of the course is to develop appreciation of the philosophical perspectives that have been developed in Latin America in relation to social and political problems. Through the study of selected thinkers and their particular social involvements, students address some of the following questions: When is a revolution justified? Is force a necessary part of social and/or political change? Is there a difference between political emancipation and human emancipation? Is politics ever a neutral enterprise? How do our competing conceptions of what it means to be a human being affect our understanding of social and political frameworks?

**206R. Philosophy of Culture in Latin America. 4 semester hours.**

This course exposes students to philosophical perspectives from different regions in Latin America. It covers primarily four areas of study. First, the course examines whether there is a distinctive "Latin American Philosophy." Second, the course evaluates different conceptions of being in the world from a Latin American perspective, including addressing these questions: What does it mean to be a human being? Why do I exist? How should I live? Third, the course considers education and movements of liberation, e.g., What roles does spirituality play in social and political movements in Latin America? How does education affect culture and cultural identity most specifically? Fourth, the course evaluates the influence of the "postmodern" movement in Latin America, considering such questions as: What does it mean to be a postmodern Latin American philosopher? Should one be a postmodern Latin American philosopher? Have Latin American philosophers in general remained prisoners of "modernity"?

**303. Ethics and Psychology. 4 semester hours.**

This is a course focusing on issues at the intersection between moral theory and psychology. the goal of the course is to explore theories of moral development, moral functioning, and moral education, especially as articulated by psychologists, sociologists, and anthropologists who base their empirical work on self-consciously philosophical concepts of morality and by philosophers in dialogue with them. Primary texts by such theorists as Dewey, Piaget, Durkheim, Kohlberg, and Gilligan are studied.

**304. Knowing Bodies. 4 semester hours.**

An advanced philosophy of the body course. This course seeks to center the body within philosophy, arguing that philosophy can be meaningful only by recognizing the necessary relation between bodies and knowledge, bodies and ethics, and bodies and social change. Questions we will seek to answer are: What can I know? How can I know? How do I go about knowing? As we pursue these questions, we will find to answer them we must address the metaphysical questions of where knowledge takes place and what is the relation between the mind and knowing, the body and knowing, the body-mind and knowing, and the role of somatic experience in knowing.

### **305. Applied Ethics. 4 semester hours.**

Intensive study of one or more areas of applied ethics, e.g., medical, business, or environmental ethics. A background in the relevant field is helpful. Prerequisite: Philosophy 103 or permission. This course may be repeated for credit. Offered in rotation with 303.

### **306. Ethics of Economic Development. 4 semester hours.**

The primary aim of this course is to provide students with the abilities to recognize and evaluate ethical issues and perspectives as they relate to economic, social, cultural, political, and technological development. Students will be engaged critically with aspects of development ranging from the growing rates of economic inequalities, poverty and healthcare, and sexism and its effects on policy alternatives. We will look at these issues both from a theoretical and practical point of view. As a consequence, students should leave the course with a better understanding of the complexity of policy initiatives and the competing ideologies that promote them.

### **310. Ancient and Medieval Philosophy. 4 semester hours.**

This course spans the period from the ancient Greek presocratics to 17th century European philosophy. The primary goal of the course is to introduce students to the historical method of philosophy, emphasizing the ways in which the philosophers of this period responded to perceived inadequacies in the solutions their predecessors offered to philosophical problems. Primary texts by Plato, Aristotle, Augustine, Thomas Aquinas, and Thomas Hobbes are studied.

### **311. Modern Philosophy. 4 semester hours.**

Modern philosophy (17th-19th centuries) is one of the most fascinating areas of philosophy. It is during the modern period that philosophy began to be concerned with the kinds of methods and ideas that we think of as philosophical today. Perhaps the most interesting thing about modern philosophy is that it is a period of intellectual change and social upheaval. The beliefs we have in democracy and the faith we have in scientific method, for example, developed during the modern period, as did navigation methods and optics. The modern period was one of the most hopeful times for social reform, but it also was a period of imperialism and colonialism, which did not have social reform for Others in mind. We will study Descartes, Princess Elizabeth, Locke, Hume, Mary Wollstonecraft, Hegel, Marx, and other thinkers. We also will study contemporary critiques of the modern period, seeking to understand why and how many of the modern ideas are still relevant today.

### **312. Contemporary Philosophy. 4 semester hours.**

While the focus of this class will not be all movements in the 20th century, the student will become acquainted with two traditions, namely "continental tradition" and the "pragmatist tradition." We will be asking questions related to but not limited to the following: How does Marx influence philosophy, most specifically the Frankfurt School, in the 20th century? What is

the relation between philosophical positions and social change? Can we identify the ills of society? If so, how do we go about critiquing social movements and social institutions? Do human beings have the power to change the world or does the world exert so much power over human beings that we are the whim of social (and natural) forces? What constitutes a philosophical solution both to a philosophical problem and a social-political problem?

**380. Advanced Topics. 0-4 semester hours.**

Examination of the works of a major philosophical thinker or school of philosophy, e.g., Whitehead, empiricism, pragmatism, etc. Prerequisites defined by instructor. Offered occasionally.

**400. Senior Seminar. 4 semester hours.**

An advanced topics, research methods course, with the topics varying by course at the discretion of the instructor. Prerequisite: Philosophy 312.

**490. Independent Study. Variable credit.**

Offered for advanced students wishing to do independent research on a topic not offered as a regular course. This course may be repeated for credit.

**491. Internship. Variable credit.**

Work-study opportunities designed to enable students to apply ideas and skills developed in the study of philosophy, particularly analytical and writing skills, and knowledge of the principles of moral and political philosophy. Possibilities include work in an art museum, with a social services agency, or on a congressional staff. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Physics

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Associate Professors William E. Dollhopf, Daniel Fleisch, Elizabeth George, Chair, and Paul Voytas

Assistant Professor Jeremiah D. Williams

### **Requirements for Major (B.A.)**

Required in Physics (37 credits)

Physics 200, 213, 214, 215, 218, 220, 311, 312, 313, 360, 460, a senior thesis, and four additional semester hours taken at the 300-level or above.

Required in Related Departments

Mathematics 201, 202, and either Mathematics 212 or 215; either Computer Science 150 or a chemistry course taken at the 121 level or above, with Chemistry 162 suggested.

### **Requirements for Major (B.S.)**

Required in Physics (47 credits)

Physics 200, 213, 214, 215, 218, 220, 311, 312, 313, 360, 460, a senior thesis, and 14 additional semester hours taken at the 300 level or above, including two semester hours of research.

Required in Related Departments

Mathematics 201, 202, 212 and 215; Computer Science 150; Chemistry 121 and 162.

Recommended for the Major

Physics 320, 321, 325, 330, 332, 410, and 411; Computer Science 250; Mathematics 360.

### **Requirements for Minor**

Required in Physics

Physics 200, 215 and 12 additional semester hours taken at the 200 level or above.

Required in Related Departments

Mathematics 201 (Mathematics 202 is suggested).

### **Special Programs in Physics**

Engineering — See Engineering.

### **Course Listings**

#### **100N. Concepts in Physics. 4 semester hours.**

Introduction to the principles of physics. Topics are selected from areas of classical and contemporary physics and technology such as Newtonian mechanics, digital and analog

technology, astronomy, cosmology, modern physics and relativity. Prerequisite: Appropriate level on the Math Placement Exam. Every year.

**101. Concepts in Physics with Laboratory. 5 semester hours.**

Same as Physics 100 but with a laboratory. Prerequisite: Appropriate level on the Math Placement Exam. Every year.

**102B. Physics through Experimentation. 4 semester hours.**

Introduction to topics selected from classical and contemporary physics. Topics explored with both laboratory and lecture techniques, which are interwoven. Prerequisite: Appropriate level on the Math Placement Exam. Every year.

**107N. Astronomy. 4 semester hours.**

Concentration on the nature of sky observations, the methods for making them, and the physical bases for understanding them. Topics discussed are the solar system, stars and their evolution, galaxies, cosmology and instrumentation. Observatory sessions are anticipated. Every year.

**200B. Mechanics and Waves. 5 semester hours.**

Study of classical mechanics and acoustic waves. Topics include kinematics, statics, dynamics, work and energy, impulse and momentum, rotational motion and acoustical wave phenomena. One three-hour lab per week. Prerequisite: Placement into Mathematics 201, which is suggested as a co-requisite. High school physics is desirable. Every year.

**205. Topics in Classical and Modern Physics. 5 semester hours.**

Continuation of Physics 200. Topics include thermodynamics, electricity, magnetism, light and modern physics. One three-hour lab per week. Prerequisite: Physics 200. Every year.

**213. Thermodynamics and Optics. 2 semester hours.**

Introduction to thermodynamics, geometrical optics and physical optics. Among the topics included are the ideal gas, thermodynamic processes, multi-lens systems and diffraction theory. Prerequisite: Physics 200; Mathematics 202 is suggested as a co-requisite. Every year.

**214. Intermediate Physics Laboratory. 1 semester hour.**

An experimental study of lens systems, the diffraction and interference of single and multi-slit gratings, and the thermodynamic properties of matter. Some modern physics experiments will be included as well. Prerequisite: Physics 200; Physics 213 is required as a co-requisite. Every year.

**215. Special Relativity and Applications. 2 semester hours.**

Introduction to Einstein's special theory of relativity including the kinematics and dynamics of rapidly moving objects and the apparent paradoxes. A redefinition of the concepts of energy and momentum. Applications may include the Compton effect and elementary nuclear physics. Prerequisite: Physics 200; Mathematics 202 is suggested as a corequisite. Every year.

**218. Introductory Electromagnetism. 5 semester hours.**

Introduction to electric fields, magnetic fields, and DC and AC circuits. The laboratory will emphasize both passive and active electric circuits and such instruments as oscilloscopes, digital multimeters and signal generators. One three-hour lab per week. Prerequisite: Physics 200; Mathematics 202 is required as a co-requisite. Every year.

**220. Modern Physics. 5 semester hours.**

An introduction to quantum mechanics with applications from atomic, molecular, condensed matter, nuclear, and elementary particle physics. One three-hour lab per week. Prerequisite: Physics 218. Co-requisite: Physics 215. Writing intensive. Every year.

**280. Topics 1-4 semester hours.**

Offered on demand.

**311. Classical Mechanics. 4 semester hours.**

Analytical study of the dynamics of particles, rigid bodies and vibrating systems. Lagrangian and Hamiltonian techniques are included. Prerequisites: Physics 220. Mathematics 212 and/or 215 recommended. Every year.

**312. Wave Phenomena. 5 semester hours.**

Unified treatment of the general properties of waves, including the mathematical representation of acoustic and electromagnetic waves, refraction, propagation, interference, diffraction and geometrical optics. One three-hour lab per week. Prerequisites: Physics 220 and 214. Mathematics 212 and/or 215 recommended. Every year.

**313. Electronics. 2 semester hours.**

Practical course in electronics for science majors. Topics include the use of solid state devices in digital and analog circuits. The laboratory will involve the use of standard electronic instrumentation. Prerequisite: Physics 218. Every year.

**320. Computational Physics. 2 semester hours.**

Introduction to numerical methods in physics using the FORTRAN programming language. Prerequisites: Physics 220, Mathematics 202 and Computer Science 150. Alternate years.

**321. Signal Processing. 2 semester hours.**

Study of Fourier methods, with emphasis on digital signal processing, digital data acquisition and digital analysis systems. Prerequisites: Physics 218 and Mathematics 202. Alternate years.

**325. Topics in Contemporary Physics. 2 semester hours.**

Topics courses in astrophysics, atomic physics, condensed matter physics, elementary particle physics, and nuclear physics are offered to provide breadth in contemporary physics. Each course addresses the current state of these fields. Courses may be taught from a research perspective with the possibility of either an experimental or a theoretical component or both. A student desiring a specific topic should petition the Physics Department. Co-requisite: Physics 311. Every year. This course may be repeated for credit.

**330. Statistical and Thermal Physics. 4 semester hours.**

Statistical mechanics approach to the study of many particle systems. Topics include the Maxwellian distribution, classical and quantum physics, entropy, heat and thermodynamics. Prerequisites: Physics 311 and Mathematics 212. Alternate years.

**332. Electromagnetism. 4 semester hours.**

Mathematical theory of electric and magnetic fields. Emphasizes threedimensional boundary value problems for evaluating the physical behavior of electric and magnetic fields. Maxwell's equations are developed in both the differential and the integral forms and are used in the analysis of electromagnetic phenomena. Prerequisites: Physics 311 and Mathematics 212. Every year.

**360. Junior Seminar. 1 semester hour.**

Year course. Every year.

**380. Topics. 1-4 semester hours.**

Offered on demand.

**410. Mathematical Physics. 4 semester hours.**

Introduction to the mathematical techniques used in physics, such as complex variables, vector and tensor analysis, group theory, Green's functions and the calculus of variations. Prerequisites: Physics 311 and Mathematics 212 and 215. Alternate years.

**411. Quantum Mechanics. 4 semester hours.**

In-depth study of quantum mechanics with an emphasis on simple systems and the operator approach as applied to the harmonic oscillator and angular momentum. Applications such as perturbation theory are included. Prerequisite: Physics 311. Writing intensive. Every year.

**460. Senior Seminar. 1 semester hour.**

Year course. Every year.

**490. Independent Study. Variable credit.**

Offered on demand. This course may be repeated for credit.

**491. Internship. Variable credit.**

Reserved for supervised research during summers or while off campus. This course may be repeated for credit.

**498. Senior Thesis. Variable credit.**

Writing intensive. Offered on demand. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable Credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Political Science

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Professors J. Robert Baker, George E. Hudson, Chair, Staci L. Rhine, and Bin Yu  
Assistant Professors James Allan, Edward B. Hasecke, and Heather Wright

### Requirements for Major

Required in Political Science

A minimum of 36 semester hours, including Political Science 101S, 102S, 260Z, and any political theory class chosen from among the following: 211R, 212R, 215R, or 216R. A minimum of 4 semester hours must be taken in each of the four areas listed below. (The required political theory course counts as a course in that area.) Sixteen semester hours must be completed at the 300 level or above. Methodology (260Z) should be taken no later than the spring semester of the junior year. Exceptions may be granted to permit students to take advantage of year-long off campus programs. Topics courses in each area, the Political Science Seminar, Independent Study, or the Internship may satisfy area requirements depending on course content. In addition, students must attend two department colloquia each semester and prepare a one-page reaction paper after each colloquium. Finally, all majors are required to complete a two-part senior comprehensive exam during the spring semester of their senior year.

Recommended in Related Departments

Economics 190S and Mathematics 127Q are strongly recommended.

### Requirements for Minor

A minimum of 20 semester hours, including 101S, 102S, and 12 additional semester hours with a minimum of 4 semester hours at the 300 level or above. Minors should consult with an adviser in the department..

### Special Programs Related to Political Science

Local Government Management Internship Program  
Washington Semester Program.

### General Courses

#### **101S. American National Government. 4 semester hours.**

Study of the basic concepts, background, constitutional basis, organization, functions, and political processes of the United States government. Every year.

#### **102S. Introduction to Comparative Politics. 4 semester hours.**

Examination of the principal features of democratic, communist, postcommunist and Third World political systems. Every year.

**260. Methodology. 4 semester hours.**

Study of the approaches to the framing and investigation of political questions. Writing intensive. Every year.

**460. Political Science Seminar. 4 semester hours.**

Advanced study and research of a particular area or problem. Results are presented in written and oral reports. Prerequisite: Determined by the instructor. Writing intensive.

**490. Independent Study. 4 semester hours.**

Concentration on research projects reflecting the student's interest completed under the direction of a professor. Prerequisite: Determined by the instructor; proposals must be submitted and approved. Writing intensive. Every year. This course may be repeated for credit.

**491. Internship. 2-4 semester hours.**

Work-study course opportunity enabling the student to observe decisionmaking processes and relate course material to practical political problems. Prerequisite: Determined by the instructor. Every year. This course may be repeated for credit.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair. Submission of proposal required.

**Area I: Comparative Politics**

**202S. Comparative Political Economy and Public Policy. 4 semester hours.**

This course provides an introduction to understanding the relationship between politics and economics, or to put it another way, between "states and markets." What is the appropriate role for government in managing the economy? Should politics and economics be completely separate, or are the two inextricably linked? This course examines how great political economists such as Adam Smith, Karl Marx, and others have addressed these questions. It will also consider, from a comparative public policy perspective, the variety of ways in which governments and markets actually interact within advanced capitalist democracies through an examination of economic policy making.

**204H. Russian Politics. 4 semester hours.**

Introduction to the politics of the Russian Federation. Historical perspective is provided through an overview of Soviet history from 1917 to 1991. Subjects considered include the break-up of the USSR, the Russian constitutional crisis, Russian political institutions, problems of the

Russian economy, and issues of nationalities in Russia and the former Soviet republics. Every year.

**205C. Chinese Politics. 4 semester hours.**

Introduction to Chinese politics since 1949. Topics include a brief overview of modern Chinese history and a survey of contemporary analyses of the Chinese political process. Emphasis is given to Chinese political culture, major political institutions and current policy issues. Every third year.

**208S. Moscow: Local Politics and Urban Planning. 4 semester hours.**

This introductory course intends to introduce the student to the processes of governing and conducting urban planning in one of the largest and most complex cities in the world - Moscow. By the end of the semester, students will be able to analyze a range of issues, including Moscow's history, contemporary planning, environmental control, social issues, architecture, and governance. The consideration of these and other issues will help the student to understand how Moscow is facing the difficulties of the transition from the old, communist system to a new one, based upon principles of democracy and a market economy. Time will be spent learning and applying social science methods such as mapping techniques (using Geographical Information Systems) and voting behavior analysis, and preparing for field research in Moscow. At the conclusion of the class, students will have the opportunity to participate in field research in Moscow for three to four weeks. Students may receive credit for the class in either Political Science or Geography. There are no prerequisites.

**209. Topics in Comparative Politics. 4 semester hours.**

Introductory course on a special topic, normally offered on a one-time basis only. This course may be repeated for credit.

**210C/S. East Asian Politics. 4 semester hours.**

The course introduces students to the political structure and dynamics of three major countries in East Asia: Japan, China (Mainland, Taiwan and Hong Kong), and Korea (South Korea and North Korea). The major objective is to make students familiar with their history, politics and economy, their relationships with each other and the impact of East Asia as a whole on global affairs.

**302. North American Politics. 4 semester hours.**

This course is a comparative survey of the political systems of the North American continent: Canada, Mexico, and the United States (although more emphasis will be placed on Canada and Mexico). Topics covered in the course from a comparative perspective include political culture and values, political institutions, the practice of federalism, political parties and electoral systems, and public policies. A section of the course will also focus on the development and future of the North American Free Trade Agreement. Prerequisites: Political Science 102S and junior standing. Writing intensive. Every year.

**303. Politics in Developing Nations. 4 semester hours.**

Problem-oriented analysis of political processes and institutions in modernizing societies. Case studies from Africa, Latin America and the Middle East. Prerequisite: Political Science 102 and junior standing. Writing intensive. Every second year.

**305. West European Politics. 4 semester hours.**

Comparative analysis of political systems and public policy issues in Western Europe. Prerequisite: Political Science 102 and junior standing. Writing intensive. Every year.

**309. Advanced Topics in Comparative Politics. 4 semester hours.**

Advanced class on a special topic, normally offered on a one-time basis only. Prerequisite: Determined by the instructor. Writing intensive. This course may be repeated for credit.

**Area II: International Relations**

**251S. International Relations. 4 semester hours.**

Introduction to some key theoretical concepts and approaches to the study of international relations. Also an application of the concepts to historical case studies of war and peace, diplomacy, arms control, international political economy, international organizations and other issues. Every year.

**252S. International Organizations. 4 semester hours.**

Study of the role of international organizations as they operate in the international political system. Particular emphasis is given to a study of the United Nations through an extended simulation of that body's activity. Alternate years.

**259. Topics in International Relations. 4 semester hours.**

Introductory course on a special topic, normally offered on a one-time basis only. This course may be repeated for credit.

**350. American Foreign Policy. 4 semester hours.**

Analysis of U.S. foreign policy since 1945, with emphasis on policy processes and issues. Prerequisite: Political Science 101 and junior standing. Writing intensive. Every year.

**352. Russian Foreign Policy. 4 semester hours.**

Analysis of the instruments and priorities of the foreign policy of the Russian Federation. Attention is given to the historical context of Soviet foreign policy from 1917 to 1991. Prerequisite: Political Science 102 or 204 and junior standing. Writing intensive. Alternate years.

**354. Chinese Foreign Policy. 4 semester hours.**

Analysis of the evolution and workings of Chinese foreign policy behavior in terms of historical patterns, the role of ideology, military and strategic factors, economics, domestic politics and the decision-making process. Chinese relations with the United States, Russia, Japan and other nations are discussed. Prerequisite: Political Science 102 or 205 and junior standing. Writing intensive. Alternate years.

**355. East Asian Foreign Relations 4 semester hours.**

The course introduces students to the dynamic interactions between major powers in East Asian (Japan, China, the United States, Russia and Korea). The objective is to make students understand and be able to critically analyze diplomatic process, patterns of external behavior of major powers, and transnational forces at work in the region. Prerequisite: Political Science 102, 210 or 251.

**359. Advanced Topics in International Relations. 4 semester hours.**

Advanced class on a special topic, normally offered on a one-time basis only. Prerequisite: Determined by the instructor. Writing intensive. This course may be repeated for credit.

**Area III: Political Theory and Law**

**211R. Ancient and Medieval Political Philosophy. 4 semester hours.**

An examination of the history of political philosophy from ancient Greek drama to medieval thought through a combination of primary textual analysis and interpretive commentary. Questions considered include: What is the nature of human beings? What is nature itself? What is justice? How can we begin to understand power? What is the good life for human beings? What is the best form of political rule? What is the proper relationship of philosophy to politics? On what basis might we construct our ethical life? Are men and women different, and, if so, how might this impact the political? Readings include Thucydides, Plato, Aristotle, Cicero, Aquinas, Augustine, and de Pizan..

**212R. Modern Political Philosophy. 4 semester hours.**

An exploration of the revolutionary challenge to ancient and medieval political philosophy posed by the development of liberal democratic thought, as well as various modern critiques of liberalism. Readings include Machiavelli, Hobbes, Locke, Wollstonecraft, Mill, Rawls, Rousseau, Marx, and Arendt.

**215R. American Political Thought. 4 semester hours.**

An examination of a selection of key political-theoretical debates and controversies, from the points of view of dominant and marginalized groups, dating from the Founding to contemporary America.

**216R. Family Values: The Politics of Virtue, Care, and Equality. 4 semester hours.**

An examination of the theoretical underpinnings of the contemporary debate over family values, from the influential conceptions of the proper relationship between the family and public life offered by the canonical political philosophers to thoughtful analyses of the conflict of rights involved in contemporary debates over the family.

**219. Topics in Political Philosophy. 4 semester hours.**

Introductory course on a special topic, normally offered on a one-time basis only. This course may be repeated for credit.

**227. Criminal Law and Politics. 4 semester hours.**

A study of the procedural and substantive development of the American criminal justice system, and how it has been influenced by social, cultural and political factors. No prerequisites.

**315. Feminist and Postmodern Political Thought. 4 semester hours.**

An exploration of the major figures, schools of thought, and concepts in Feminist and Postmodern political thought, culminating in an examination of the often uneasy relationship between feminism and postmodernism. Readings include Nietzsche, Heidegger, Derrida, Foucault, Wollstonecraft, Goldman, MacKinnon, Elshtain, and Irigaray, among others. Prerequisites: junior class standing and either Political Science 211R, 212R, 219, or permission of instructor. Writing intensive. Every year.

**319. Advanced Topics in Political Philosophy. 4 semester hours.**

Advanced class on a special topic, normally offered on a one-time basis only. Prerequisite: Determined by the instructor. Writing intensive. This course may be repeated for credit.

**322. American Constitutional Law. 4 semester hours.**

An examination of judicial review, judicial activism and restraint, and theories of Constitutional interpretation, as well as the Court's role in several policy areas, including property rights, the economy, separation of powers, federalism, presidential powers, and in interpreting the equal protection and due process clauses as they bear on race and gender equality. Prerequisites: Political Science 101 and junior standing. Writing intensive. Every year.

**Area IV: American Politics**

**221S. State and Local Government. 4 semester hours.**

Consideration of the politics, organization, functions, and role of state and local government in the United States. Outside speakers are used when appropriate. Every year.

**222S. Urban Politics. 4 semester hours.**

Examination of politics and government in American cities. Emphasis is on how changes over time in local political structures and processes have affected the delivery of services at this most basic level of the federal system. Every year.

**223. Introduction to Local Government Administration. 4 semester hours.**

An introduction to the politics and administration of city governments in America with particular emphasis on the power, role and responsibilities of administrators in the delivery of city services. The course is taught during designated summers only as a component of an off-campus city management internship program. No prerequisites.

**224. The American Presidency. 4 semester hours.**

The course will examine the powers of and constraints on the American Presidency with particular emphasis on the modern presidency. Students will look at the modern presidency and its relations with Congress, the media, the courts and the public. The course will also explore presidential campaign politics with particular attention to the role of party, interest groups, the media, and money. No prerequisites.

**229. Topics in American Politics. 4 semester hours.**

Introductory course on a special topic, normally offered on a one-time basis only. This course may be repeated for credit.

**230. Campaigns and Elections. 4 semester hours.**

Investigation of the nature of the campaign and election process in the United States from a theoretical and a practical perspective. As such, it provides a framework for analyzing electoral politics, both now and in the future. Examples of recent and past campaigns and elections are used in the course to highlight general principles. Every year.

**232S. Public Opinion. 4 semester hours.**

Study of the formation, development and role of public opinion in American politics. Every year.

**234S. Black Politics. 4 semester hours.**

Introductory course on the political dimensions of black life in the United States. It examines the role of individuals, institutions and the relative impact of protest versus electoral politics in addressing the status of blacks in the United States. Every year.

**236S. Media and Politics. 4 semester hours.**

Introductory course on the factors that shape media coverage of politics in the United States and the impact of that coverage. How politicians try to use various media and the rise of new communication technologies are also covered. Every year.

**320. Public Administration. 4 semester hours.**

Exploration of the political dynamics of the federal bureaucracy. Particular emphasis is placed on the interactions of bureaucrats and agencies with each other and with other actors in the political system. Prerequisite: Political Science 101 and junior standing. Writing intensive. Every year

**321. Public Policy. 4 semester hours.**

Exploration of the politics of the national policy-making process. Special emphasis is placed upon the role of political institutions and the media in shaping the public agenda. Prerequisite: Political Science 101 and junior standing. Writing intensive. Every year.

**323. U.S. Congress. 4 semester hours.**

This course will examine the institution of Congress and the behavior of its members. Particular emphasis will be placed on how the motivations of members of Congress contribute to how the institution is organized and how it functions as well as how it relates to other key political actors and institutions. This course is writing intensive. Prerequisites: Political Science 101S and junior standing.

**329. Advanced Topics in American Government. 4 semester hours.**

Advanced class on a special topic, normally offered on a one-time basis only. Prerequisite: Determined by the instructor. Writing intensive. This course may be repeated for credit.

**332. Political Parties and Interest Groups. 4 semester hours.**

Study of the organization, function, and operation of political parties and interest groups in the United States. An investigation of elections and the role of political action committees is included. Prerequisite: Political Science 101 and junior standing. Writing intensive. Every year.

## **Pre-Health**

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The student interested in a career in human or veterinary medicine, dentistry, optometry, nursing, occupational therapy or another health profession needs to plan the sequence of courses in order to complete the prerequisite courses for the various health profession schools and prepare for the national admission tests. Prerequisite courses for the health professional schools typically include one year of biology, two years of chemistry, one year of physics, one year of mathematics, and one year of English. In addition to these requirements, schools may have other courses that they require from the humanities or social sciences. While most Wittenberg Pre-Health students major in biology, chemistry, or biochemistry/molecular biology, a major in the sciences is not required by most health profession schools. Students may choose any major as long as they take the professional school prerequisite courses.

Admission is predicated on academic achievement (GPA and national test scores), volunteer experience, exposure to research, as well as general character and personality (altruism, leadership and empathy). It is important for students to accumulate a significant number of volunteer (or internship) hours in a variety of situations (private practice, hospital) in their field of interest. There are also opportunities available for our students to participate in research projects with Wittenberg faculty and alumni who have volunteered to involve students in summer research. Students with specific questions should seek guidance from the Pre-Health Professions Adviser.

## **Nursing**

Wittenberg has 3-4 cooperative programs with the Frances Payne Bolton School of Nursing at Case Western Reserve University and with The Johns Hopkins University School of Nursing. The pre-nursing student spends three years at Wittenberg obtaining a background in science and liberal arts, prior to entering nursing school in the fourth year.

If accepted, after satisfactory completion of the first year of nursing school, the student receives the Bachelor of Arts degree from Wittenberg.

At Case Western Reserve University, the student spends four years in the nursing program. The goal of the program is to prepare the student for advanced practical and clinical research in nursing. Satisfactory completion of this program leads to the awarding of the Doctor of Nursing (N.D.) degree by Case Western Reserve University. At The Johns Hopkins University, the student spends two years in the nursing program. Students may earn a B.S.N. or Master's Degree in Nursing.

Additional information about these nursing programs may be obtained from the Pre-Health Professions Adviser or the Office of Admission.

## **Occupational Therapy**

Wittenberg has a cooperative program with Washington University (St. Louis) School of Medicine through its program in occupational therapy. The pre-occupational therapy student spends three years at Wittenberg obtaining a background in basic science and liberal arts, while completing the major portion of the biology major requirements. If accepted by Washington University, the student begins the occupational therapy program in the fourth year. The Bachelor of Arts degree from Wittenberg is conferred at the end of the first year at Washington University, and the Master of Science degree in occupational therapy is awarded at the end of the second year there.

Additional information about this program may be obtained from the Pre-Health Adviser or the Office of Admission.

## Pre-Law

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The student generally concentrates in a broad program rather than a specialized one. Individuals may major in any discipline. Elective courses are recommended in economics, English, history, philosophy and political science. Courses that train students to write and express themselves orally are extremely helpful.

Success on the LSAT and in law school is related to the rigor of the courses taken and the extent to which those courses develop the skills of logical thinking and critical analysis. Additional information about the pre-law program may be obtained from the Pre-Law Adviser or the Office of Admission.

## Pre-Modern and Ancient World Studies

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**Professors:** Donald Busarow (Music), Kent Dixon (English), Mimi Dixon (English), Trudy Faber (Music), Corwin Georges (Theatre and Dance), Paul Nelson (Religion), Rochelle Millen (Religion), Don Reed (Philosophy), Tom Taylor (History), David Wishart (Economics)

**Associate Professors:** Darlene Brooks Hedstrom (History), Ty Buckman (English), Lillian Franklin (Spanish), Ruth Hoff (Spanish), Rick Incorvati (English), Barbara Kaiser (Religion), Amy Livingstone, Director (History), Christine McIntyre (Spanish), Jennifer Oldstone-Moore (Religion), Cynthia Richards (English), Scott Rosenberg (History), Leanne Wierenga (French)

**Assistant Professors:** Shelly Chan (Chinese), Alejandra Gimenez-Berger (Art History), Tanya Maus (History), Christian Raffensperger (History), Heather Wright (Political Science)

The minor in Pre-Modern and Ancient World studies provides students with an opportunity to delve deeply into the history, literature, and culture of past civilizations. To make students global citizens, the PAST minor takes a global perspective, and encourages students to study the past from a variety of perspectives to allow them to make connections across time and space, and also between the present and the past.

### **Requirements for the Minor:**

A minor in Pre-Modern and Ancient World Studies consists of 22 hours distributed in the following way: PAST 400 Capstone Seminar (2 hours), an additional 20 hours, of which 8 hours must be at the advanced level and from at least two different areas of study with no more than three courses from any one department. Areas of study include: Art, Economics, English, History, Literature and Language, Music, Philosophy, Political Science, Religion, and Theatre.

To provide coherence to the minor, students should decide in consultation with their PAST faculty adviser on a distribution: chronological, thematic or comparative.

### **Course Listings:**

#### **PAST 400 Capstone Seminar. 4 semester hours.**

Capstone course in which the junior or senior Pre-Modern and Ancient World Studies minor integrates the major strands of Pre-Modern and Ancient World history, culture, religion and philosophy, and literature around a specified theme and writes an extensive research paper. Writing intensive. Prerequisite: Must be a junior or senior Pre-Modern and Ancient Studies minor and have completed twelve hours of the PAST minor. Every year.

**See Academic Catalog by Department for Full Description of Courses Listed Below:**

#### **Art History:**

Art 110H History of Art I

Art 220H Renaissance Art  
Art 230H Baroque and Rococo Art  
Art 240H Early Christian and Byzantine Art  
Art 243H Western Medieval Art  
Art 275H Greek and Roman Art  
Art 280 when topic appropriate

**Economics:**

Economics 231 European Economic History  
Economics 320 History of Economic Thought

**English:**

English 180A when topic appropriate  
English 280 British Survey I  
English 305 Studies in Medieval Literature and Culture  
English 306 Studies in Renaissance Literature and Culture  
English 307 Studies in Restoration and Eighteenth-Century Literature and Culture  
English 330 when topic appropriate  
English 331 Shakespeare

**History:**

History 101 Topics in History when topic appropriate  
History 105H/C Pre-Modern World  
History 111H Medieval Civilization  
History 161C Pre-Modern East Asia  
History 171C African Societies to 1500  
History 201 Topics in History when topic appropriate  
History 202H Writing and Interpreting History when topic appropriate  
History 203H/C Historian's Craft when topic appropriate  
History 241H England from King Arthur to Queen Elizabeth I  
History 251C Russia to 1917  
History 263C Age of the Samurai  
History 301 Topics in History when topic appropriate  
History 312 From Constantine to the Vikings  
History 313 From the Vikings to the Black Death  
History 314 Renaissance and Reformation  
History 390 Reading Colloquium when topic appropriate

**Languages:**

Chinese 130A/C Chinese Topics when topic appropriate  
French 140A Themes of Francophone Literature when topic appropriate  
French 301A Survey of French Literature I  
French 412 La Prose I  
Spanish 301 Introduction to Hispanic Literature

**Music:**

Music 209A: Bach and Handel  
Music 220 Introduction to Church Music  
Music 301H History of Western Music to 1750

**Philosophy:**

Philosophy 310 Ancient and Medieval Philosophy

**Political Science:**

Political Science 211 Ancient and Medieval Political Philosophy

**Religion:**

Religion 121R Art of Biblical Literature  
Religion 134C/R Chinese and Japanese Religious Traditions  
Religion 137R Jewish Tradition  
Religion 221R Understanding the Old Testament  
Religion 222R Understanding the New Testament  
Religion 241R Christian Tradition  
Religion 321 Biblical and Modern Prophets  
Religion 324 Apocalyptic Vision in Ancient and Modern Literature  
Religion 333C/R Buddhist Thought and Scriptures  
Religion 339 C/R Monkeys, Samurai, and Gods  
Religion 381R Women and Religion

**Theatre:**

Theatre and Dance 260H History of European Theatre

In addition, topics courses in these departments and others are approved to meet Pre-Modern and Ancient World Studies minor requirements as the selected topics warrant. Other types of courses may also be offered with a Pre-Modern and Ancient World Studies emphasis and be approved for PAST credit. Current PAST courses will be listed in the master schedule each semester. Students may also receive PAST credit for study abroad experience upon petition to the PAST faculty up to 10 hours. The remaining 12 hours, which include the 2-hour PAST seminar, must be completed with PAST Wittenberg faculty.

## Psychology

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Professors Jeffrey B. Brookings, Clifford E. Brown, Josephine F. Wilson, and Mary Jo Zembar,  
Chair

Associate Professor Jennifer Butler

Assistant Professors Michael D. Anes, Lauren S. Crane, and Stephanie Little

### Requirements for Major (B.A.)

The minimum requirements for a B.A. major in psychology are 39 semester hours in psychology, which include, as required courses, Psychology 110 -160 (12 semester hours); Psychology 207 (five semester hours); eight semester hours at the 200 level beyond Psychology 207; 10 semester hours at the 300 level; Psychology 390: Junior Seminar; and one course at the 400 level, which must be either 400, 410, or 499, at least four semester hours. In addition to the required 39 semester hours in psychology for the major, a student must complete a statistics course: Psychology 107, Management 210, or Mathematics 127.

### Recommended in Psychology

The student who plans a career in a service-oriented field related to psychology may not need graduate training. This student may choose additional courses in psychology related to the interest area. The student planning a professional career as a psychologist should prepare to go to graduate school, and additional courses at the 300-and 400-level are recommended.

### Recommended in Other Departments

Each student is urged to take courses in biology, Computer Science 150, language courses, including a conversational course, Mathematics 201 and Philosophy 240. The student planning to go to graduate school should also take Mathematics 202 and further courses in biology, chemistry and physics. Additional courses in expository writing and in the social sciences and humanities should reflect the student's needs and interests.

### Requirements for Major (B.S.)

#### Required in Psychology

The minimum requirements for a B.S. major in psychology are 43 semester hours in psychology, which include as required courses: Psychology 110-160 (12 semester hours); Psychology 207 (five semester hours); eight semester hours at the 200 level beyond Psychology 207; 10 semester hours at the 300 level; Psychology 390 Junior Seminar; and two courses at the 400 level, which must be either 400, 410, or 499, at least eight semester hours.

#### Required in Other Departments

In addition to the required 43 semester hours in psychology for the major, a student must complete a statistics course; Psychology 107, Management 210, or Mathematics 127 or 227. Additional preparation in mathematics and the natural sciences or economics is required for the student wishing to complete the B.S. In consultation with the academic adviser, the B.S. candidate will take Math 201 or above, eight semester hours; and 16 semester hours from any of

the following: Philosophy of Science, Biology 170, 180, or above, Chemistry 121 or above, Computer Science 150 or above, Economics 190 or above, Geology 150 or above, Mathematics 202 or above, or Physics 101 or above.

### **Requirements for Minor**

The minimum requirements for a psychology minor are 20 semester hours in psychology, which include, as required courses, at least eight semester hours of the Proseminars, Psychology 110-160; the remaining 12 semester hours are to be selected in consultation with the minor adviser. Psychology 100 cannot be used to satisfy the requirements for a minor in psychology. The student must also complete a statistics course: Psychology 107, Management 210, or Mathematics 127.

### **Course Listings**

#### **100S. Understanding Psychology. 4 semester hours.**

Introductory-level survey course in psychology intended for the student who does not plan to major or minor in psychology. Covers topics in biological foundations of behavior, learning, memory, cognition, development across the life span, personality, and abnormal and social psychology. Note: A student may not receive credit for Psychology 100S if the student has received credit for any of the six Psychology Proseminars (110N-160S). Every year.

#### **107Q. Statistics. 4 semester hours.**

Application-oriented introduction to descriptive and inferential statistics. Includes techniques and principles used in the behavioral, natural and social sciences. Prerequisite: appropriate level on the Math Placement Exam. Note: a student may not receive credit for more than one statistics course: Psychology 107, Mathematics 127 or 227 or Management 210. Every year.

#### **110N. Proseminar I - Physiological. 2 semester hours.**

Introduction to the study of the biological bases of behavior, including the structure and function of neurons, brain organization, and sensation and perception. Every year.

#### **120B. Proseminar II - Learning. 2 semester hours.**

Introduction to the scientific bases, methods, theories, and findings in the study of learning and memory in humans and animals. Includes laboratory exercises. Every year.

#### **130S. Proseminar III - Developmental. 2 semester hours.**

Exploration of developmental changes that occur across the life span. Physical, cognitive, social, emotional and personality development are emphasized. Every year.

#### **140S. Proseminar IV - Differential. 2 semester hours.**

Introduction to psychological tests and their applications, and a survey of the structure and dynamics of personality. Every year.

**150S. Proseminar V - Abnormal. 2 semester hours.**

Introduction to the powerful motivations and emotions of animals and humans. The central role of motives and emotions in mental illness and its treatment is examined. Every year.

**160S. Proseminar VI - Social. 2 semester hours.**

Social psychology is the scientific study of how others influence our beliefs, emotions and behavior. Topics examined include conformity, persuasion, social cognition, attribution, attitudes, prejudice, aggression and nonverbal communication. Every year.

**180. Introductory Topics. 2-4 semester hours.**

Examination of special topics not included under other course descriptions. Offered occasionally according to student and faculty interest. Such topics may include, but are not limited to, violence, impact of television and racism. Courses at this level do not count toward the psychology major or minor. This course may be repeated for credit.

**190S. Psychology of Women. 4 semester hours.**

Introduction to emerging theories and research concerning women and their behavior, emphasizing uniquely female experiences throughout the life cycle and influences on women in contemporary society. Every year.

**207. Experimental Design. 5 semester hours.**

Laboratory course developing a systematic understanding of research design and statistical analysis and their interdependence. Statistical procedures, their application and their interpretation are examined, with emphasis on computer software exercises. Prerequisite: Psychology 107 or another statistics course, e.g. Management 210 or Mathematics 127 or 227. Every semester.

**211. Sensation and Perception. 4 semester hours.**

Study of the sensory systems and human perception from physiological, sensory, psychophysical, information-processing and cultural perspectives. Prerequisite: Psychology 110. Alternate years.

**212. Health Psychology. 4 semester hours.**

Introduction to theory, research and practice in health psychology, emphasizing the promotion and maintenance of health, the identification of causes of particular illnesses, and behavioral prevention and treatment of illness. Prerequisite: Psychology 107 or another statistics course. Alternate years.

**231. Child Development. 4 semester hours.**

The study of children from prenatal development to preadolescence, with emphasis on motor, cognitive, language, social and personality development. Theoretical issues such as nature versus nurture, critical periods and cultural differences, as well as more current topics such as the effects of daycare and divorce are examined. Prerequisite: Psychology 130. Every year.

**232. Psychology of Adolescence. 4 semester hours.**

The study of youth from puberty to adulthood. Changes in cognition, morality, sexuality and identity, and how they influence adolescent behavior are examined. Prerequisite: Psychology 130. Writing intensive. Every year.

**241. Psychology of Personality. 4 semester hours.**

Study of the structure and dynamics of personality, emphasizing psychoanalytic, interpersonal, cognitive, behavioral and existential/ humanistic theories. Prerequisite: Psychology 140. Writing intensive. Every year.

**242. Industrial/Organizational Psychology. 4 semester hours.**

Introduction to the study of work-related behavior. Topics covered include job analysis, personnel selection and training, performance appraisal, motivation, job satisfaction, leadership and human factors engineering. Prerequisite: Psychology 107 or another statistics course, e.g., Management 210 or Mathematics 127 or 227. Alternate years.

**243. Community Psychology. 4 semester hours.**

Introduction to theory, research and practice in community psychology, emphasizing the prevention of psychological, social and health-related problems, e.g., psychopathology, child abuse and AIDS. Prerequisite: Psychology 107 or another statistics course. Alternate years.

**251. Abnormal Psychology. 4 semester hours.**

Study of the etiology, diagnosis and treatment of emotional disorders. Various theories, models, and diagnostic and therapeutic procedures are presented and discussed. Prerequisite: Psychology 150. Every year.

**253. Introduction to Counseling. 4 semester hours.**

An introduction to the major theories of counseling and psychotherapy, including humanistic-existential, cognitive-behavioral and psychoanalytic. Students will learn beginning counselor skills and methods. Prerequisite: Psychology 251. Every year.

**280. Topics in Psychology. 4 semester hours.**

In-depth examination of special topics not included under other course descriptions. Offered occasionally according to student and faculty interest. Such topics may include, but are not limited to, psychology of aging, environmental psychology, forensic psychology and human factors. This course may be repeated for credit.

**311B. Behavioral Neuroscience. 5 semester hours.**

Laboratory course examining the biological bases of behavior, including the functioning of the nervous system, motivational and attentional processes, and clinical syndromes. Prerequisites: Psychology 110 and 207. Every year.

**321B. Learning, Memor, and Cognition. 5 semester hours.**

Laboratory course examining methods, findings, and theoretical interpretations in the study of learning, memory and cognition. Prerequisites: Psychology 120 and 207. Writing intensive. Every year.

**341B. Psychological Testing. 5 semester hours.**

Laboratory course examining principles of test construction, validation, and interpretation with emphasis on measures of cognitive ability, personality characteristics and vocational interests. Prerequisites: Psychology 140 and 207. Every year.

**361B. Experimental Social Psychology. 5 semester hours.**

Laboratory course examining current research and theories in social psychology. Emphasis on experimental investigations done both in the laboratory and in the field. Topics include attribution, social cognition attitude formation and change, altruism, aggression, nonverbal communication and group dynamics. Prerequisites: Psychology 160 and 207. Writing intensive. Every year.

**390. Junior Seminar. No credit.**

This seminar is designed to help students prepare for senior research projects and internships, senior comprehensive and GRE exams, graduate school applications, and graduate school and job interviews.

**400. Research. 4 semester hours.**

Advanced seminar in which the participants, under the guidance of the instructor, perform all phases of actual, i.e. not simulated, research in an area consistent with the skills and research interest of the instructor. Prerequisites include appropriate content and methods courses as specified by the instructor and permission of the instructor. The course may be taken repeatedly but only with different instructors. Every year.

**410. Senior Thesis. Variable credit.**

Intensive research project, extending over one or two semesters. Requirements include a written thesis. See advisor or Departmental Chair for further information and prerequisites. Writing intensive. Every year.

**490. Independent Study. Variable credit.**

Intensive research under close faculty supervision. Reserved for the advanced student. Permission of the Chair required. Writing intensive. Every year. This course maybe repeated for credit.

**492. Research Internship. Variable credit.**

Open to the junior and senior psychology major by Departmental permission only. See adviser or Chair for details. Writing intensive. Every year. This course may be repeated for credit.

**496. Urban Term. Variable credit.**

(See Urban Studies for description.) Open to the junior and senior psychology major by Departmental permission only. See adviser or Department Chair for details. Every year.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Religion

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Professors Warren R. Copeland, Rochelle L. Millen, and Paul T. Nelson, Chair  
Associate Professors Barbara E. Kaiser and Jennifer Oldstone-Moore

### **Requirements for Standard Major**

Eight 4- semester hour courses of which at least three must be at the 300 level; participation in the Junior Colloquium on Approaches to the Study of Religion, two semester hours; and submission of a satisfactory Senior Essay, one semester hour in both the fall and spring semesters, by the fifth week of the spring semester. Students must take at least three courses in different Western and non-western traditions under Traditions and Texts and at least three courses (one other than ethics) under Religion and Culture. A cognate course in another department may be counted toward the major with the permission of the Chair.

### **Requirements for the Major Combining Religious Studies with Another Subject**

Since the study of religion is inherently interdisciplinary, the department allows students to design a coherent alternative major consisting of five 4-semester hour courses in the religion, at least three of which must be at the 300 level, and three appropriate 4-semester hour courses in one or more other departments. The distribution requirements of the standard major are waived but the Junior Colloquium on Approaches to the Study of Religion is required. A satisfactory Senior Essay, one semester hour in both the fall and spring semesters, must be submitted by the fifth week of the spring semester. Students wishing to pursue this option should consult their adviser and must secure the prior permission of the Chair. Examples of such integrative programs of study include religion and art, religion and literature, religion and history, religion and philosophy, and religion and sociology, and religion and politics.

### **Requirements for Minor**

A minor in religion consists of five 4-semester hour courses including at least two courses in different religious traditions under Traditions and Texts, one course under Religion and Culture, and one course at the 300 level.

### **Course Listings**

#### **General Studies**

##### **100. Topics. 4 semester hours.**

This course may be repeated for credit.

##### **200. Topics. 4 semester hours.**

This course may be repeated for credit.

**300. Topics. 4 semester hours.**

This course may be repeated for credit.

**350. Approaches to the Study of Religion (Junior Colloquium). 2 semester hours.**

Introduction to the academic study of religion from various perspectives such as anthropology, sociology, psychology, philosophy and history. Required of all majors in the spring semester of the junior year. (With permission of the Chair, an alternate arrangement will be made for students planning off-campus study that semester.) The student develops a prospectus for the senior essay. Writing intensive. Every year.

**490. Independent Study. 1-4 semester hours.**

This course may be repeated for credit.

**491. Internship. 1-4 semester hours.**

May be taken for credit/no credit only. This course may be repeated for credit.

**498. Senior Essay. 2 semester hours.**

Required of all religion majors in both the fall and spring semesters. A complete draft of the essay must be submitted by the last class day of the fall semester. The final draft of the essay must be submitted by the fifth week of the spring semester. Writing intensive. Every year.

**499. Honors Thesis/Project. Variable credit.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## **Traditions and Texts**

**121R. Art of Biblical Literature. 4 semester hours.**

Designed to help readers understand the content and appreciate the artistry of literature from the Old Testament, New Testament and Apocrypha by paying close attention to creative aspects of the texts. Also considers the reinterpretation of biblical literature in the music, stories and movies of contemporary culture. Writing intensive. Every year.

**134C/R. Chinese and Japanese Religious Traditions. 4 semester hours.**

This course examines several religious traditions that have shaped East Asian civilizations. We will study the formal traditions of Taoism, Confucianism, Buddhism, Shinto, and the New Religions; we will also consider the popular religious traditions of China and Japan. Classes include both lecture and discussion; students will be evaluated through essay exams, short papers, and analysis of scripture and other texts. Every year.

**137R. Jewish Tradition. 4 semester hours.**

Introduction to the basic concepts and general history of Judaism from biblical times to the present. Includes readings in biblical texts, discussions of life-cycle and the Jewish calendar, and a survey of Jewish history. Writing intensive and non-writing intensive sections. Every year.

**221R. Understanding the Old Testament. 4 semester hours.**

Comprehensive survey that attempts to place Old Testament texts in their historical context, understand the religious and cultural perspectives, which shape the texts, and develop the student's skills in biblical interpretation and assessment of secondary literature. Writing intensive. Every year.

**222R. Understanding the New Testament. 4 semester hours.**

Comprehensive survey emphasizing the historical context, and religious and cultural perspectives of the New Testament books. Writing intensive. Every year.

**237R. Judaism and Christianity: The Formative Years. 4 semester hours.**

Examination of the formative events in the development of Judaism and Christianity, using both primary and secondary sources. Considers the religion of the historical Jesus, Paul's relation to Jews and Christians, the status of Jews and Christians in the Roman Empire of the first century, the Pharisees and the Sanhedrin, the codification of the Mishnah and the writing of the Gospels. Writing intensive. Alternate years.

**241R. Christian Tradition. 4 semester hours.**

Historical survey of major theologians and the development of Christian doctrine in the West. Topics include perennial tensions between reason and revelation, the humanity and divinity of Christ, nature and grace, justification and sanctification, spirit and structure, and differences between Roman Catholic and Protestant doctrine. Some sections writing intensive. Every year.

**321. Biblical and Modern Prophets. 4 semester hours.**

Investigation of the historical settings, rhetorical techniques and messages of prophets from Amos of Tekoa to John of Patmos. The student also considers the possibility of prophetic voices in contemporary society. Writing intensive. Alternate years.

**324R. Apocalyptic Vision in Ancient and Modern Literature. 4 semester hours.**

Study of religious views, historical context, literary style, and imagery of ancient Jewish and Christian apocalyptic texts, followed by an analysis of the way in which selected modern films and literature use apocalyptic themes and images. Writing intensive. Alternate years.

**333C/R. Buddhist Thought and Scriptures. 4 semester hours.**

Seminar studying the teachings and practices of schools of the Buddhist tradition through pivotal scriptures. Sutras and other texts from Theravada and Mahayana Buddhism will be considered in their historical and cultural contexts, and within the framework of central themes of Buddhism. Requirements include class discussion and presentations, two exams, one short paper, and a term paper. Writing intensive. Every third year.

**335C/R. Confucianism and Its Critics. 4 semester hours.**

Seminar on the history, central teachings, and institutions of the Confucian and Neo-Confucian traditions and Confucianism as manifest in the modern world. We will read pivotal works of Confucians including the *Analects*, *Mencius*, the writings of Zhu Xi, Wang Yangming and Tu Wei-ming. These will be assessed in part in contrast to critics of Confucianism ranging from classical philosophers to twentieth century Marxists. Writing intensive. Every year.

**337R. Judaism in the Modern World. 4 semester hours.**

Examination of thinkers such as Moses Mendelssohn, Abraham Geiger, Franz Rosenzweig, Martin Buber and Emil Fackenheim demonstrating the interaction of Judaism with modern Western culture. Writing intensive. Alternate years.

**Religion and Culture**

**110R. Anti-Semitism from Antiquity to the Present. 4 semester hours.**

Examination of anti-Judaism/anti-Semitism from its earliest manifestations in the Greco-Roman Empire until the present. One goal is to identify those forces in intellectual history that have repeatedly responded to Jewish cultural and religious differences by seeing the Jew as a source of evil in the world. Writing intensive. Alternate years.

**171S. Urban Life and Social Ethics. 4 semester hours.**

Examination of representative challenges facing contemporary cities using Springfield as an example. Background readings inform practical issues facing city government with emphasis upon the ethical dimension of the issues throughout. Writing intensive. Every year.

**172S. Poverty and Social Ethics. 4 semester hours.**

Survey of different approaches to domestic poverty with emphasis upon the ethical principles informing them. Writing intensive. Alternate years.

**176H. Racism and Social Ethics. 4 semester hours.**

Consideration of basic understandings of racism in the United States in terms of their basic views of American values. Writing intensive. Every year.

**177R. Religious Perspectives on Contemporary Moral Issues. 4 semester hours.**

Introduction to basic moral concepts in Judaism and Christianity and their application to issues such as lying; sexuality and procreation; abortion; euthanasia; genetic engineering; human rights; war, terrorism and nuclear deterrence; equality and gender; justice in access to health care; and environmental ethics. Some sections are writing intensive. Every year.

**275H/L. Germans and Jews: Culture, Identity and Difference. 4 semester hours.**

Study of the issues that have characterized the history of German Jewry in its relationship to German Christendom, focusing on the period from the Enlightenment to the aftermath of the Holocaust. Consideration of the problems of cultural difference, assimilation, European identity, and discrimination as reflected in the cultural imagination. German and religion sections meet together regularly. Writing intensive. Alternate years.

**336C/R. Religious Daoism and Chinese Popular Religion. 4 semester hours.**

Religious Daoism has been a way of self-cultivation, influential in Chinese imperial politics and history. This course will examine the tradition of Religious Daoism in historical context and through the study of practices, including ritual, meditation, and yoga. We will also look at Religious Daoism from the vantage point of Chinese Popular Religion, the practices that have been the basis of the religion of the people to the present. Class will be a combination of lecture and discussion, with student presentations and a term paper. Writing intensive.

**339. Monkeys, Samurai, and Gods. 4 semester hours.**

This seminar will look at religious meaning and message in some of the best loved literature of China and Japan, including *Journey to the West*, *Tale of Heike*, *Dream of the Red Chamber*, *Account of my Hut*, and others. Class will be a combination of lecture and discussion, with student presentations and a term paper. Videos and other media will be used when possible. Writing intensive. Alternate years.

**342R. Comparative Religious Ethics. 4 semester hours.**

Seminar analyzing and comparing ethical systems of several religious traditions including Confucianism and Buddhism in East and South Asia, and Judaism and Christianity in the West. Examines their assumptions, norms, characteristic patterns of moral reasoning, and conceptions of virtue and vice. Attention is given to the relations between religion, morality and law in each tradition; the question of whether there are any common features of religious moral reasoning that are universal; and the status of appeals to universal human rights. Writing intensive. Alternate years.

**343R. Process Theology. 4 semester hours.**

Readings in basic resources in process thought with an emphasis on its meaning for society and politics. Writing intensive. Alternate years.

**374R. Advanced Social Ethics: Sexism. 4 semester hours.**

Readings in alternative ethical analyses of sexism in American society. Writing intensive. Alternate years.

**375R. Advanced Social Ethics: Racism. 4 semester hours.**

Readings in alternative ethical analyses of racism in American society. Writing intensive. Alternate years.

**378R. Bioethics. 4 semester hours.**

Seminar on contemporary issues and debates in bioethics. Topics may include abortion, genetic engineering, reproductive technologies, euthanasia, autonomy, paternalism, use of human subjects in research, access to health care, allocation of scarce resources and environmental ethics. Writing intensive. Every year.

**381R. Women and Religion. 4 semester hours.**

Examination of religious institutions and laws from a feminist principle of interpretation. Aim is to understand the status of women within classical Judaism and Christianity and to assess feminism's influence upon and critique of them. Writing intensive. Every year.

## Russian Area Studies

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Professors George E. Hudson, Director (Political Science), Olga L. Medvedkov (Geography), Jerry G. Pankhurst (Sociology), and David M. Wishart (Economics)  
Associate Professor Lila W. Zaharkov (Foreign Languages and Literatures)

### Requirements for Major

The major in Russian Area Studies was established to give the Wittenberg student the opportunity to study the complicated fabric of Russian society by means of an interdisciplinary approach.

In addition to the required courses, each major and minor is required to attend a Russian Studies Colloquium at least once each term.

### Course Selections

Thirty-six semester hours required, distributed in the following manner:

- Russian Language

Eight semester hours above Russian 112 or the equivalent. These courses may be chosen from the following: Russian 205: Readings in Russian Culture; Russian 210: Beginning Conversation and Composition; and Russian 310: Advanced Conversation and Composition.

- Humanities and Social Sciences

At least one course must be at the 300 level or above. Four semester hours in Russian literature in translation chosen from the following: Russian 230: Topics course in Russian literature; Russian 260: 19th-Century Russian Literature; and Russian 261: 20th-Century Russian Literature.

Eight semester hours in history chosen from the following: History 251: History of Russia to 1917; History 252: History of Russia Since 1917; and History 390: Reading Colloquium.

Twelve semester hours in the social sciences, chosen from at least three different departments, from the following: Political Science 204: Russian Politics; Political Science 352: Russian Foreign Policy; Economics 231: European Economic History; Sociology 390: Post-Soviet Societies and Cultures; Geography 250: Regional Geography: Post Soviet Realm; and Geography 380: Topics.

- Elective

Four semester hours chosen from among the courses in the Russian Area Studies Program, including advanced language. Elective must be at the 300 level or above. This elective allows the student to pursue a special emphasis.

- Language Across the Curriculum

The Russian Area Studies Program heartily encourages the concept of “languages across the disciplines.” The student with sufficient language background may do a portion of his or her course work in the Russian language. This allows the student not only to practice the language but also to apply it to an area of interest. Prior approval of a text will be given by the Russian language instructor to ensure the appropriate level for the student. Participation is voluntary, but highly recommended.

### **Requirements for Minor**

Twenty-two semester hours distributed in the following manner:

- Language

Ten semester hours from the following or the equivalent: Russian 111: Elementary Russian I; and Russian 112: Elementary Russian II.

- Humanities

Four semester hours from the following: Russian 260: 19th- Century Russian Literature in Translation; Russian 261: 20th-Century Russian Literature in Translation; History 251: History of Russia to 1917; and History 252: History of Russia Since 1917.

- Social Sciences

Four semester hours from the following: Political Science 204: Russian Politics; Political Science 352: Russian Foreign Policy; Economics 231: European Economic History; Geography 250: Regional Geography: Post-Soviet Realm; Geography 380: Topics and Sociology 390: Post-Soviet Societies and Cultures.

- Elective

Four semesters hours chosen from languages, humanities, or social sciences.

### **Course Listings**

#### **499. Honors Thesis/Project. Variable credit.**

Prerequisites: 3.50 GPA and permission of the Director.

See Department for full description

### **Economics**

231: European Economic History.  
490: Independent Study.

### **Geography**

250C/S: Regional Geography: Post-Soviet Realm.  
380: Topics.  
490: Independent Study.

### **History**

251C: History of Russia to 1917.  
252C: History of Russia Since 1917.  
390: Reading Colloquium.  
490: Independent Study.

### **Russian Language and Literature**

111: Elementary Russian I.  
112F: Elementary Russian II.  
205C: Readings in Russian Culture.  
210: Beginning Conversation and Composition.  
230: Topics Course in Russian Literature in Translation.  
260A/C: 19th-Century Russian Literature in Translation.  
261A/C: 20th-Century Russian Literature in Translation.  
310: Advanced Conversation and Composition. (required for study abroad)  
490: Independent Study in Russian.

### **Political Science**

204H: Russian Politics.  
352: Russian Foreign Policy.  
490: Independent Study.

### **Russian Area Studies**

490: Independent Study.  
499: Honors Thesis/Project.

### **Sociology**

390C: Post-Soviet Societies and Cultures.

490: Independent Study.

## Service Learning

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Service learning integrates a service experience that meets a community need with an academic course. Service learning involves reflection activities to assist students in thinking about the relation between course content and the service experience as well as to foster social responsibility.

### Service Learning 100 (SVLN 100)

This course provides students an opportunity to link a service experience to a particular course for one semester hour of credit. The precise nature of the service activity and its appropriate connection to course content are determined in consultation with the faculty member teaching the course to which Service Learning 100 is to be linked.

### Service Learning 100 Guidelines

- ❑ Students will provide unpaid service to non-profit organizations, schools, or other entities in the community.
- ❑ Students will complete at least 15 hours of service for one semester hour of Service Learning 100 credit.
- ❑ One semester hour per course is allowed. No more than four semester hours of Service Learning 100 will be credited to a student's transcript. (Note: students may receive no more than sixteen semester hours total in the four categories of internships, independent studies, senior thesis, and Service Learning 100).
- ❑ Credit is given for the learning and its relation to the course, not for the service alone.
- ❑ SVLN 100 is graded Satisfactory/NoCredit.

### Service Learning 100 Process

1. Student talks with faculty member about linking service to a particular course.
2. Student and faculty member review the Service Learning 100 guidelines.
3. Student works with faculty member and community organization to determine the type of service the student will provide and to establish learning objectives, assignments/reflection activities, and a method for assessment.
4. Student submits four copies of the completed proposal to the Assistant Provost for Academic Services by the end of the second week of the semester that he/she wants to register for Service Learning 100.
5. Once approved, the proposal will serve as registration for Service Learning 100.

### Course Listings

#### **100. Service Learning. 1 semester hour.**

Prerequisite: Completion of Community Service 100.

## Sociology

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Professors Keith D. Doubt, Chair, Alan W. McEvoy, David A. Nibert, Jerry G. Pankhurst, and Stephen R. Smith  
Assistant Professor Beckett Broh

### **Requirements for Major**

Required in Sociology

The sociology major is comprised of 37 semester hours in sociology. The student selecting the major is required to complete Sociology 101, 307, 360, and 498. Twenty additional semester hours are to be selected from departmental offerings; eight of these hours must be at the 300 or 400 level. The student may use only four semester hours in Sociology 460, 490, or 491 toward the major. A 2.0 GPA in sociology courses is required, and majors are expected to attend regularly scheduled Sociology Colloquia.

Required in Related Departments

The student must complete a course in statistics (Psychology 107, Mathematics 127 or 227, or Management 210) and must demonstrate computing competency before taking Sociology 307.

### **Requirements for the Minor**

The sociology minor is comprised of Sociology 101 and 16 additional hours in sociology courses. Eight of these 16 hours must be at the 300 or 400 level. Sociology 460, 490 and 491 can be used toward the minor only with Departmental approval.

### **Course Listings**

#### **101S. Introduction to Sociology. 4 semester hours.**

Analysis of human interaction. Focus upon social structure, culture, socialization, and the nature of basic institutions and social processes. Occasional writing intensive sections. Every semester.

#### **110C/S. Cultural Anthropology. 4 semester hours.**

Introduction to cultural anthropology, paying particular attention to the concept of culture and to the cultural patterns around the world. Topics include fieldwork method, institutions of society, and symbols and meaning. The student reads descriptions of societies from different ethnographic areas, including the United States. Occasional writing intensive sections. Every year.

#### **201. Topics in Sociology/Anthropology. 2-4 semester hours.**

Courses in areas of special interest not covered in regular course offerings. Alternate years. This course may be repeated for credit.

**203. Sociology of Education. 4 semester hours.**

This course examines education as a social institution. It explores the organization and functions of schools, socialization process within schools and their relationship to academic achievement, the relationship between schooling and patterns of inequality, and schools as both objects and agents of change. Selected social problems such as school violence, student substance abuse, racial and ethnic divides, and the challenge of addressing the needs of special populations also will be considered.

**210S. Sociology of Family. 4 semester hours.**

Sociocultural study of marriage and the family with emphasis on variations in organization, function and value orientation arising from status, ethnic and religious differences. Implications for family life in American society. Writing Intensive. Every year.

**230S. Welfare and Human Services. 4 semester hours.**

Critical analysis of the helping professions and a survey of community agencies with emphasis on theoretical and applied aspects of human service work. Some sections writing intensive. Alternate years.

**245C/S. Gender and Society. 4 semester hours.**

Gender is a key component of all human groups. Topics to be covered include gender roles, division of labor by gender, gender inequalities, gender relations in production and reproduction, and symbolic expression of gender differences. May be taught from either an anthropological or a sociological perspective. Alternate years.

**250S. Sociology of Deviance. 4 semester hours.**

Analysis of deviance as an interactive process with emphasis on the social context of deviance and the process by which deviants are socially defined. Every year.

**270S. Sociology of Minority Groups. 4 semester hours.**

Meaning and nature of minority groups, theories and patterns of interaction, and current trends and problems. Every year.

**277C/R. Islam and Islamic Societies. 4 semester hours.**

A sociocultural introduction to the beliefs and practices of Islam, including a review of its development from its origins in the Middle East to its spread around the globe; evaluation of the place of Islam in shaping modern Islamic societies and cultures, with special attention to Muslim family relations; assessment of the experience of Muslims in societies where they form a minority population, including the United States; and consideration of the role of Islam in contemporary world affairs. Alternate years.

**280. Animals and Society. 4 semester hours.**

This course presents an examination of ways in which human societies have viewed and treated other animals and the implications of these interactions for human social organization. Sociological perspectives and methodological approaches will be used to analyze these issues. Students will learn the roles animals play in human society and ways in which humans have treated other animals, past and present. Special attention will be given to entanglements that exist between the treatment of animals and devalued groups of humans - as well as the effects of human-animal relations on the Third World, including hunger, social conflict, and environmental deterioration.

**290C/S. Global Change. 4 semester hours.**

Critical examination of the major theories of social change with respect to the emergence of global political and economic systems. Topics include the industrial revolution and colonialism as well as modernization, socioeconomic development, with a particular focus on understanding issues significant to the Third World. Every year.

**292S. Population Problems. 4 semester hours.**

Population theories, problems of population growth, birth and death rates, and sociocultural factors in the composition and distribution of population. Every third year.

**296S. Urban Sociology. 4 semester hours.**

Exploration of urban studies, e.g., urban culture, lifestyle problems of institutional sectors, social change and planned development. Alternate years.

**301. Special Topics. 2-4 semester hours.**

Courses in special areas of the discipline, e.g., sociology of education, contemporary social problems, collective behavior, etc. Prerequisite: One sociology course of at least three semester hours. Alternate years. This course may be repeated for credit.

**307. Research Methods. 5 semester hours.**

Overview of the fundamental concepts and methods of sociological research providing experience with all phases of research from conceptualization and design through data-gathering, analysis, and the reporting of results. Descriptive and inferential statistics are used in the course. Includes both field and laboratory components. To be taken by all majors during their junior year before Senior Thesis. Prerequisites: Sociology 101; Mathematics placement level 23 and completion or concurrent enrollment in an approved statistics course (Psychology 107, Mathematics 127 or 227, or Management 210). Writing and math intensive. Every year.

**330S. Wealth, Power, and Poverty. 4 semester hours.**

Theoretical aspects and empirical studies of social classes, their origins, and characteristics with specific reference to the United States. Prerequisites: One sociology course of at least three semester hours. Alternate years.

**340R. Sociology of Religion. 4 semester hours.**

Examination of the structure and functioning of religious organizations and institutions, their relationships to the social structure and their role in social change. Prerequisite: One sociology course of at least three semester hours. Writing intensive. Alternate years.

**350. Race and Ethnicity. 4 semester hours.**

Race and ethnicity continue to be important markers of identity, stratification, and political action. This course will expose students to concepts and theories that can promote an understanding of the roles of race and ethnicity in contemporary society and guide new ways of thinking about these issues. Specifically, the course will introduce students to the sociological analysis of race and ethnic group membership in its various historical and geographical contexts, especially that of the contemporary United States. Why has racial/ethnic group membership remained a salient factor in social life? What factors perpetuate racial/ethnic stratification in our society? When does racial/ethnic group membership form the basis of social and political mobilization? Key concepts will be critically evaluated, with attention drawn to their ideological basis, explanatory power, and policy implications. Students will be encouraged to think critically about the social issues under study and their relevance to their own lives as members of a multi-ethnic society.

**360. Sociological Theory. 4 semester hours.**

Fundamental concepts of the discipline and their interrelationships in general theories of society. The relationships between theory and research, theory and philosophical presuppositions, and theory and social structure. To be taken by each major, preferably in the junior year. Prerequisite: One sociology course of at least three semester hours. Writing intensive. Every year.

**364. Political Sociology. 4 semester hours.**

Analysis of the role of power in society especially as institutionalized in the polity, with an emphasis on how political processes are related to the economy, education, family and religion. Prerequisite: One sociology course of at least three semester hours. Writing intensive. Every year.

**370. Criminology. 4 semester hours.**

Theories of the nature and extent of crime, factors conditioning criminal behavior, methods of punishment and rehabilitation, and programs of crime prevention. Prerequisite: One sociology course of at least three semester hours. Occasional writing-intensive sections. Alternate years.

**376S. Law and Society. 4 semester hours.**

Study of the functioning of both the formal structure and informal mechanisms of the legal domain within a society. Topics include the use of law as social control, the conflict-resolution function of the law and the structure of legal organizations. May be taught from either a sociological or anthropological perspective. Prerequisites: One sociology course of at least three semester hours. Writing intensive. Alternate years.

**380. Identity, Self and Society. 4 semester hours.**

Examination of the concepts of identity and identity formation to construct a more integrated view of self and society and to assess the value of these concepts for understanding human behavior. Draws upon various behavioral science materials. Prerequisite: One sociology course of at least three semester hours. Writing intensive. Alternate years.

**390C. Russian and Central Eurasian Societies and Cultures. 4 semester hours.**

Analysis of the societies and cultures of the post-Soviet realm, emphasizing family life, religion, stratification, politics, law and education. Prerequisite: One sociology course of at least three semester hours. Writing intensive. Alternate years.

**401. Seminar. 4 semester hours.**

Exploration of areas such as social theory, research methods, human ecology and population, social psychology, social organization and anthropology. Prerequisite: One sociology course of at least three semester hours. Writing intensive. Every third year. This course may be repeated for credit.

**490. Independent Study. 2-4 semester hours.**

Individual research elected by the student in consultation with the department faculty. Prerequisite: One sociology course of at least three semester hours. This course may be repeated for credit but only four semester hours can be counted toward the major in Sociology. Can be used for the minor in Sociology only with departmental approval.

**491. Internship. 2-4 semester hours.**

Work-study course that provides opportunity to observe decision-making processes, relate course materials to practical problems and participate appropriately in a work environment. Prerequisite: One sociology course of at least three semester hours. This course may be repeated for credit but only four semester hours can be counted toward the major in Sociology. Can be used for the minor in Sociology only with departmental approval.

**498. Senior Thesis. 4 semester hours.**

Comprehensive written project and an oral defense. The thesis is a requirement of each major. For further details on the structure of the senior thesis requirement, please consult the department's designated senior adviser. Prerequisites: Sociology 307 and completion of an

approved statistics course (Psychology 107, Mathematics 127 or 227, or Management 210). Sociology 360 must be completed or taken concurrently with Sociology 498. Writing intensive. Every year.

**499. Honors Thesis/Project.**

Prerequisite: 3.50 GPA and permission of the Department Chair.

## Theatre and Dance

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Professors Corwin A. Georges, Chair, and Steven C. Reynolds  
Associate Professors James H. Humphries, Jr., Shih-Ming Li Chang, and Ligia Pinheiro  
Technical Theatre Assistant Deborah G. Henderson

### Requirements for Major

A theatre major completes 36 semester hours of course work. Required courses are Theatre and Dance 222, 226, 230, 260, 270, 300, 401, and two courses chosen from 232, 233, 234, or 235. The student must also complete one of the following: 240, 250, 322, 331, 400, 490, or 492. The student also takes two dance technique classes, fulfills a number of production requirements, completes an integrated learning unit, and passes a two-part senior comprehensive examination.

### Requirements for Minors

The student may choose either a technical theatre minor, a theatre performance minor, or a dance minor. To complete a technical theatre minor, a student takes 20 semester hours of course work: Theatre and Dance 120, 230, 260, two from the following: 232, 233, 234, or 235, and either 331 or the two courses not taken from among 232, 233, 234, or 235. The student also fulfills two production requirements. To complete a theatre performance minor, a student completes 20 semester hours of course work: THDN 120, 222, 226, 260, and another four semester hours chosen from THDN 300, 322 and 400 (performance topics). The student also takes two dance techniques classes and fulfills a production requirement. To complete a dance minor a student takes 16 semester hours of required course work: THDN 211, either THDN 213 or 200 (Topics in Dance History), either THDN 112, 210, or 200 (Topics in Dance Culture), and either THDN 226 or 230. In addition, the student completes four semester hours of dance technique courses chosen from THDN 010- 070, earns two semester hours of THDN 102 by participating in two faculty supervised dance concerts, and participates in the senior dance concert. All four semester hours of dance technique courses and the two semester hours of THDN 102 may count toward the total semester hours needed for graduation.

### Licensure for Teaching in Drama/Theatre

Students interested in pursuing a course of study leading to a license to teach drama/theatre should contact the Chairperson of the Department of Theatre and Dance or the Education Department for specific requirements.

### Course Listings

#### 010-070. Courses in Dance Technique. 1 semester hour.

Designed to provide learning, knowledge and performance components in various types of dance technique. Every year. These courses may be repeated for credit. Courses taught include:

–010P. Aerobic Dance.

–011P. Folk and Square Dance.

- 012P. Social Dance.
- 013P. Chinese Folk Dance.
- 020P. Theatre Movement.
- 021P. Dance Technique for Theatre.
- 030P. Modern Dance.
- 040P. Ballet.
- 041P. Intermediate Ballet.
- 050P. Jazz Dance.
- 051P. Intermediate Dance.
- 060P. Tap Dance.
- 070P. Dance Company Workshop.

Special Note: THDN 070: Dance Company Workshop is a year-long course. The student must register for the class each semester of the academic year. At the end of spring semester, one semester hour is awarded. Prerequisite: Permission of the instructor. Every year.

**101A. Theatre Production. 1 semester hour.**

For students who participate in mainstage theatre productions as a member of the cast or crew or as a crew member of the annual dance concert. Every year.

**102A. Dance Production. 1 semester hour.**

For students who dance in the annual dance concert. Every year.

**112A. Dance in Popular Culture. 4 semester hours.**

Study of dance in Broadway shows, Hollywood musicals, MTV, etc. as an expression of American culture. Writing intensive. Alternate years.

**120A. Art of the Theatre. 4 semester hours.**

Consideration of the aesthetics of theatre together with the theory and practical techniques of dramatic arts. Every year.

**200. Topics in Theatre or Dance 1-4 semester hours.**

Courses in areas of special interest not covered in regular course offerings. Open to all students. This course may be repeated for credit.

**210C. Dance Ethnology. 4 semester hours.**

Consideration of the scope and function of dance as ritual, as social activity, and as entertainment in cultures other than our own. Alternate years.

**211A. Dance Composition. 4 semester hours.**

Study of the elements of dance composition and how they are used in creating dance. Every year.

**213H. Dance in the 20th Century. 4 semester hours.**

Study of the significant developments in dance during the 20th century with an emphasis on ballet and modern dance. Writing intensive. Alternate years.

**215N. Dance Kinesiology. 4 semester hours.**

Study of the skeleton and musculature of the human body as they relate to dance training and performance. Alternate years..

**222A. Acting. 4 semester hours.**

Study and practice of the art and techniques of acting. Every year.

**226A. Improvisation.**

Study and practice of improvisational theatre techniques and theatre games. Writing intensive. Every year.

**230A. Stagecraft. 4 semester hours.**

Study of the basic stage equipment and scenery construction, with laboratory experience. Every year.

**232. Scene Design. 2 semester hours.**

Study of the principles and process of scenery design with an emphasis on methods that communicate the design idea. Prerequisite: Theatre and Dance 230 or permission of the instructor. Alternate years.

**233. Lighting and Sound Design. 2 semester hours.**

Examination of the theories, techniques, and equipment involved in the design and execution of production lighting and stage sound. Prerequisite: Theatre and Dance 230 or permission of instructor. Alternate years.

**234. Costume and Make-up Design. 2 semester hours.**

Study of the design process in the areas of costume and make-up with focus on the various ways of communicating the design idea. Prerequisite: Theatre and Dance 230. Alternate years.

**235. Stage Management. 2 semester hours.**

Study and practice of stage management focusing on the organizational, leadership, and management skills needed in contemporary theatre and production. Prerequisite: Theatre and Dance 230 or permission of instructor. Alternate years.

**240A. Playwriting. 4 semester hours.**

Study and practice of playwriting theories and techniques. Writing intensive. Alternate years.

**250A. Child Drama. 4 semester hours.**

Study of dramatic activities with and for children. Alternate years.

**260H. History of European Theatre. 4 semester hours.**

Study of theories and techniques of theatre arts from ancient Greece to the present. Alternate years.

**270A. Contemporary American Drama. 4 semester hours.**

Study of the new dramatic literature produced by the American theatres since 1980. Writing intensive. Alternate years.

**300. Directing. 4 semester hours.**

Study and the practice of the art and techniques of play directing. Prerequisite: Theatre and Dance 222 and 230. Every year.

**322. Advanced Acting. 4 semester hours.**

Further study and practice of acting theories. Prerequisite: Theatre and Dance 222. Alternate years.

**331. Advanced Stage Design. 4 semester hours.**

Further study and practice of stage design focusing on the student's individual area of interest resulting in a design portfolio. Prerequisite: Theatre and Dance 232, 233, or 234. Alternate years.

**400. Topics in Theatre or Dance. 1-4 semester hours.**

Specified study of a field of theatre or dance, as described in the course schedule each term.

**401. Senior seminar. 4 semester hours.**

In-depth study of theatre. Content varies each year. Every year.

**490. Independent Study. 1-4 semester hours.**

Individual project in theatre or dance, arranged by the student with a supervising instructor and the Department Chair. Every year.

**492. Internship. 1-4 semester hours.**

Supervised learning-work experience at on- or off-campus sites. Involves a written project, journal, or other assignments. Every year.

**499. Honors Thesis/Project. Variable credit.**

Prerequisites: 3.50 GPA and permission of the Department Chair.

## Urban Studies

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Professor Warren Copeland (Religion), Director

The Urban Studies Program fosters student understanding of urban systems and problems, and encourages and emphasizes integrated interdisciplinary approaches to urban studies. The Urban Studies minor often completes a major with a participating department (e.g., Political Science, Geography, History, Sociology, Religion, Psychology, or Economics). The student, in consultation with an Urban Studies adviser, may design the minor to focus upon a particular interest such as public policy, urban planning or city administration.

The Urban Studies curriculum includes three levels. The first level consists of the interdisciplinary, team-taught course Urban Studies 171. The second level is drawn from existing departmental course offerings and includes a set of basic Urban Studies courses as well as suggested urban interest courses. It is expected that students would also take methodology courses appropriate to their majors; these would also be considered second-level courses, although they are not specifically required for the completion of an Urban Studies minor. A third level comprises several opportunities for higher-level analysis of urban affairs such as the writing of a senior paper and practical experiences in urban agencies. Internships are available in Springfield and in other cities as arranged.

### Requirements for Minor

The Urban Studies minor consists of 21 semester hours including Urban Studies 171, three 4-semester-hour basic urban courses, a 4-semester-hour Urban Internship or Urban Term field placement, and a 1-semester-hour senior paper in consultation with a student's minor adviser and at least one other member of the Urban Studies faculty. Additionally, to provide a broader contextual background to the minor, the student may wish to take one or more of the suggested urban interest courses listed in the description of the Urban Studies curriculum.

### Course Listings

#### **171S. Introduction to the City. 4 semester hours.**

Focuses on human interaction in the city, highlighting the American city from the perspectives of all participating disciplines — its development, its functions and structures, its population and its problems. Every year.

#### **490. Independent Study.**

An option in lieu of the internship experience. The student should consult the chair of his or her major department to receive approval, along with that of the Director of the Urban Studies program, to receive credit under Level III of the Urban Studies curriculum. The student taking Geography 250: Applied Urban Geography may receive Level III credit.

### **491. Urban Internship.**

Work-study course opportunity for the student to observe decisionmaking processes, relate course material to practical urban problems and participate appropriately in an urban work environment. Each student is responsible to the Urban Internship adviser specified by the student's major department, and an application form must be submitted to participate in this course. Every year.

### **492. Senior Paper 1 semester hour.**

An integrated learning opportunity geared toward assessing student understanding of theories, methods and concepts central to at least two disciplinary approaches to urban studies, the ability to integrate knowledge from two or more disciplines, and the skill in formulating and defending a thesis. The precise nature of the paper is determined in consultation with the student's minor adviser and one other member of the Urban Studies faculty. Every year.

### **495. Urban Term.**

An off-campus experience that permits the serious student interested in urban problems to do research in a large urban setting. The student studies the life and operations of the metropolitan area in an urban term seminar and works at an urban field placement site. Participation in urban term is encouraged during the student's junior or senior year.

### **Basic Urban Courses**

Economics 250: Urban and Regional Economics. 4 semester hours.

Geography 230: Urban Geography. 4 semester hours.

History 323: Urban History. 4 semester hours.

Political Science 222: Urban Politics. 4 semester hours.

Religion 171: Urban Life and Social Ethics. 4 semester hours.

Sociology 296: Urban Sociology. 4 semester hours.

### **Recommended Urban Interest Courses**

Economics 340: Public Finance. 4 semester hours.

Geography 330: Applied Urban. 2 or 4 semester hours.

Geography 390: Geographical Information Systems. 5 semester hours.

Political Science 221S: State and Local Government. 4 semester hours.

Political Science 321: Public Policy. 4 semester hours.

Psychology 361B: Experimental Social Psychology. 5 semester hours.

Religion 172S: Poverty and Social Ethics. 4 semester hours.

Religion 176H: Racism and Social Ethics. 4 semester hours.

Sociology 270S: Sociology of Minority Groups. 4 semester hours.

Topics: Many topics courses are offered by participating departments that qualify as urban interest courses.

## Wittenberg Seminars

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Associate Professor Miguel Martinez-Saenz, Director, and cooperating faculty

The Wittenberg Seminars are small, topical courses designed by individual instructors or teams of instructors based on their intellectual interests and training. Required of all first-year students, the WittSems serve as an introduction to the core values of academic inquiry at Wittenberg. The topics of the WittSems vary widely, but they share common goals: to help students become intellectually and personally engaged in academic inquiry and understand the relation between the world of learning and their own lives. The WittSems emphasize seminar-style learning: close faculty and student interaction in a classroom environment of conversation, risk-taking, and trust. Students in the WittSems will have a chance to explore an intellectual topic in detail and from different perspectives, practicing the kinds of close reading, problem solving, and critical thinking skills that form the bedrock of a liberal arts education.

### Course Listings

**100L. Wittenberg Seminar. 4 semester hours.**

## Women's Studies

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Associate Professor Lori Askeland (English), Director

The Women's Studies Program provides a forum for students and scholars in different disciplines to share their interests, concerns and methodologies in a rich inquiry into one vitally important topic — the status and accomplishments of women. In pursuing this goal, the Program recognizes and encourages alternative ways of thinking about both disciplines and pedagogy, presents previously ignored or misinterpreted information about women across the disciplines, and promotes the student's self-esteem and personal growth through academic growth and inquiry.

### Requirements for the Minor

Women's Studies 100 plus 16 semester hours in at least three different disciplines: three of the courses must be numbered 200 or above, and only one course may count for both the student's major and the Women's Studies minor. The student, in the spring of the senior year, will present a portfolio of written work in women's studies to a Women's Studies faculty committee for assessment.

### Course Listings

#### **100L. Women, Culture, Politics and Society. 4 semester hours.**

Introductory survey of major issues in women's studies, including feminist theory, literature and history of women, and lived experiences of women in the United States and globally. No prerequisites. Writing intensive. Every year.

#### **490. Independent Study. Variable credit.**

Independent research project designed in consultation with the supervising professor. Prerequisite: Declaration of the Women's Studies minor and permission of the instructor and the Women's Studies Committee. Every year.

#### **492. Internship. 2-4 semester hours.**

Supervised work experience in some area related to women's studies. Prerequisite: Declaration of Women's Studies minor and permission of the instructor. Every year.

### **The following courses are approved for the Women's Studies minor:**

Chinese

130. Chinese Women Writers: Ancient and Modern. 4 semester hours

## Communication

320. Topics: Gender and Communication. 4 semester hours

## English.

180. Gender Trouble. 4 semester hours

180. Making Romance. 4 semester hours

180. Women in Classical Hollywood Cinema. 4 semester hours

313. African-American Women's Literature. 4 semester hours

318A. Women in Literature I. 4 semester hours.

319A. Women in Literature II. 4 semester hours.

(Sections of 180 and other topics courses as noted in the master schedule.)

## French.

390. Contemporary Theory. 4 semester hours.

## Health, Fitness and Sport.

245. History of Women in Sport. 4 semester hours.

## History

202. Silences of the Past. 4 semester hours

203. Holy Antique Women! 4 semester hours

319. European Women's History. 4 semester hours.

320. American Women's History. 4 semester hours.

371. Nationalism, Ethnicity and Gender in 20th Century Africa. 4 semester hours.

390. Medieval Women. 4 semester hours.

## Management

390. Women in Management. 4 semester hours.

## Music

205. Women in Music.

## Philosophy

200. Philosophy of Women's Lives. 4 semester hours.

304. Knowing Bodies. 4 semester hours.

## Political Science

319. Feminism and Postmodern Political Thought. 4 semester hours.

## Psychology

190. Psychology of Women. 4 semester hours.

## Religion

374. Advanced Social Ethics: Sexism. 4 semester hours.

381. Women and Religion: Judaism and Christianity. 4 semester hours.

### Sociology

210. Sociology of the Family 4 semester hours.

245. Gender and Society. 4 semester hours.

246. Women and the Family in East Asia. 4 semester hours.

301. Topics: Sociology of Sexuality. 4 semester hours.

380. Identity, Self and Society. (Identified sections.) 4 semester hours.

In addition, topics courses in many departments such as Art, English, History, Language, Philosophy, Religion and Sociology are approved to meet Women's Studies minor requirements as the chosen topics warrant. Other types of courses may also be offered with a Women's studies emphasis and be approved for Women's Studies credit (such as English 330: Major Authors). Current Women's Studies courses will be listed in the master schedule each semester.

## Admission Information

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Wittenberg strives to select those students who show evidence of academic ability, motivation and continued growth — those who will benefit from the total educational program. No qualified student is ever denied admission because of race, color, creed, sex, disability, age or national origin. Careful personal consideration is given to each applicant. The final decision of the Admission Committee is based on the academic record, ability to do college work as indicated by testing data, academic and extracurricular interests, and recommendations. Admission is selective.

### Admission Requirements

The college preparatory curriculum necessary for admission to Wittenberg University must include four units of English and three units each of mathematics, social science, science and foreign language. The candidate for admission is urged to present credits in at least four major academic subjects each year of secondary school preparation. It is to the student's advantage to take a strong academic program in the senior year. Graduation from an accredited high school is a usual prerequisite for admission.

All applicants are required to submit scores of either the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the American College Test (ACT). These tests should be completed in the latter part of the junior year or the first semester of the senior year. Although Achievement Tests of the College Board are not required, the English Achievement Test is recommended for class placement and/or course credit.

### Department of Music

In addition to the application process, an audition is required for all students planning to pursue a major in music. Please follow these steps:

- Print a four-page Music Audition Packet (available at [www.wittenberg.edu/music/audition](http://www.wittenberg.edu/music/audition)). It includes complete audition guidelines and all necessary forms.
- Submit an Audition Request Form and arrange to have two Music Recommendation Forms completed and sent to the Department of Music.
- Perform an audition.

### Application Fee

A non-refundable fee of \$40 must be submitted with the application. The check or money order should be made payable to Wittenberg University. A student who desires that the application fee be waived for reasons of financial hardship should attach to the application a copy of the College

Board Fee Waiver or a letter from the secondary school counselor. The application fee waivers are available in the Guidance Office of your High School.

### **Advanced Placement and/or Credit**

Students may receive advanced placement or credit by means of 1) Advanced Placement, Scholastic Aptitude and/or Achievement Tests of the College entrance Examination Board, 2) departmental examinations administered at Wittenberg, 3) courses successfully completed at an accredited college before a student's graduation from secondary school, PSEOP, and 4) International Baccalaureate (IB) Examinations, Advanced Level.

### **Early Decision**

Those students who have decided that Wittenberg University is their first choice, present strong academic credentials, and intend to enroll if accepted, are encouraged to apply under the Early Decision Plan. The application must be filed by Nov. 15, with notification by Jan. 1. The students who are accepted under the Early Decision Plan, must withdraw all previously filed applications to other schools. Within two weeks, the student must confirm acceptance to Wittenberg with an enrollment deposit of \$400, which may be credited toward the cost of tuition in accordance with the policy outlined under the section on University Expenses.

### **Early Action I**

The Early Action I Plan provides the applicant with early notification. If you choose to apply under the Early Action I, your application must be received by December 1. You will be notified before January 1 of an admission decision. Your \$400 non-refundable deposit will be due by May 1.

### **Early Action II**

If you choose to apply under the Early Action II Plan, your application must be received by January 15. You will be notified before February 1 of an admission decision. Your \$400 non-refundable deposit will be due by May 1.

### **Regular Action**

Any applications submitted after the Early Action II Plan deadline, of January 15, will be considered under the Regular Action Plan. If you choose to apply under the Regular Action Plan, your application must be received by March 15. You will be notified before April 1 of an admission decision. Your \$400 non-refundable deposit will be due by May 1.

Applications received after March 15, will be considered on a space-available basis.

### **Regular Action**

Applications for Regular Action must be submitted by March 15, with notification on a rolling basis before April 1.

### **Late Application**

The university accepts applications after March 15, but these are considered on a space-available basis.

### **Common Application**

Wittenberg University accepts either the on-line or paper version of the Common Application in lieu of its own form and gives equal consideration to both. Students may obtain copies of the Common Application from their high school guidance counselors or from the University web page, <http://4wittenberg.edu/administration/prospect/apply/>

### **Deferred Admission**

Students who wish to be accepted during their senior year but wish to postpone entrance for a semester or a year, upon special request in writing, are permitted deferred admission.

### **Transfer Admission**

Wittenberg welcomes in any semester a student who transfers from another college or university. The applicant must present a cumulative grade-point average no less than 2.0 on a 4.0 scale and must be in good academic and social standing. There is no limit to courses/hours transferable; however, a student must complete at least 50 percent of the semester hours for all course work and at least 50 percent of the semester hour credits for all course work in the major while in residence at Wittenberg. Secondary transcripts and aptitude test scores are not normally required if a student has finished a year or more of college work. Unusual mitigating circumstances related to a student's academic or social standing can be taken into consideration by the Admission Committee. Information relating to such matters must be presented in writing.

### **International Students**

Wittenberg values the presence of international students on campus. Special application forms are required and may be obtained on line at [www.wittenberg.edu](http://www.wittenberg.edu). Students whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL) or the Scholastic Aptitude Test (SAT) administered by the Educational Testing Service.

## **Fees and Expenses**

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For any questions regarding Fees and Expenses please visit:

[http://www4.wittenberg.edu/administration/student\\_accounts/](http://www4.wittenberg.edu/administration/student_accounts/)

## School of Community Education

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The School of Community Education (SCE) provides for the academic, cultural, professional/vocational, and individual development of the non-traditional student within the mission of the university. It is a principal expression of Wittenberg's commitment to the lifelong values of a liberal arts education.

### Degree Programs

SCE administers a program of evening/weekend credit courses for the adult/non-traditional student and also assists the student seeking courses through the day schedule.

A complete program leading to a B.A. degree with a major in liberal studies is available through the evening/weekend schedule. Courses are conducted by fulltime university faculty as well as adjunct instructors whose employment and performance are subject to review by both the respective academic departments and the dean. In addition, the adult/non-traditional student is free to pursue the various degree programs offered through the day schedule. The adult student may enroll on either a degree or a non-degree basis, the latter status being normally limited to 24 semester hours, except for extended teacher licensure programs.

The adult seeking admission as a degree student must submit an application together with relevant transcripts. Although the SAT/ACT test is not required, admission is nevertheless selective, as is the case with the traditional student. In deciding upon acceptance, the university looks for indications of likely success and the ability to contribute to academic life at Wittenberg. These include grades from previous institutions, range of subjects, grades earned on non-degree status at Wittenberg, available standardized test scores and such non-academic indicators as successful performance in responsible employment.

### Major in Liberal Studies

This interdisciplinary degree program, leading to the B.A. degree, is open to the adult/non-traditional student only. Academic oversight for the program resides in the Community Education Committee, acting through the dean. Structure and requirements are similar to those of other university majors, with the exception of the major requirements category. Instead of the typical series of courses in one academic discipline, the Liberal Studies major requires a series of courses from several disciplines. These are unified by a thematic concentration. The evening/weekend schedule offers a thematic concentration in Organizational Leadership. The student using the day schedule can elect the Organizational Leadership concentration or devise an original one, subject to the approval of the dean.

The structure of the Liberal Studies degree program, including distribution of semester hour credits, is as follows:

General Education	53*
Major and Related Requirements	36
Free Electives	41
Total	130

\*Assumes English 101E and Foreign Language 106F or 112F.

Three of the major requirements must be at the 300 level or higher. Some courses carry designations of academic departments. Others, specific to this program, are offered directly through the School of Community Education and carry the prefix SCED. Each student must complete SCED 200L: Liberal Studies Colloquium and SCED 400: Senior Leadership Seminar, or SCED 499: Liberal Studies Honors Thesis Project as well as a senior assessment exercise. The student who cannot use the evening/weekend schedule, in which the Colloquium, Issues Topics and Seminar are offered, may petition the dean to take appropriate substitute courses offered via the day schedule or to use the Independent Study option under faculty guidance.

The transfer student must take at least 22 semester hours of the major requirements at Wittenberg. As is the case with other majors, the student declaring the Liberal Studies major may also designate a minor in any university discipline.

### Course Offerings

All requirements of the Liberal Studies program are met through courses listed under academic departments, with the following exceptions, which are exclusive to the School of Community Education.

SCED 190/290/390. Topic. Variable credit.

Within the Organizational Leadership program or such related programs as may develop, topics of special interest or need that are not readily encompassed by other designations in the curriculum. The 190 courses are at the beginning level, dealing with basic skills, techniques, or concepts. The 290 courses assume some level of college experience – to be designated for each particular course. The 390 courses are at an advanced level, require some experience in one or more disciplines, and are appropriate for students beyond the sophomore level.

SCED 200L. Liberal Studies Colloquium. 4 semester hours.

Introduction to the processes and values of interdisciplinary liberal arts inquiry, to modes of expression appropriate to such inquiry, and to research techniques in general. Processes and values include identification of underlying premises and sequences of thought, analysis of competing positions, recognition of points requiring research, an appreciation for at least two different disciplinary approaches to a given topic and formation of critical judgment. The subject of the course varies but reflects issues and themes appropriate to the General Education Program's Integrated Learning goal. Products of the course include a research paper and

discussion of student projects. The Liberal Studies major should take this course as early as possible while working through the requirements of the major. SCED 200L satisfies the Integrated Learning (Wittenberg Seminar) requirement for SCE students. Prerequisite: English 101. Writing intensive.

SCED 300. Issues in Liberal Studies. 2 semester hours.

Intensive focus upon topics relating to liberal studies concentrations. Generally these topics are applications of interdisciplinary academic principles to issues that the adult student encounters in work and civic activities. They may also be extensions of topics introduced in other courses. Sophomore standing recommended.

SCED 310. Understanding and Working within the American Health Care System. 4 semester hours.

A critical examination of the structural characteristics, organizational theory and performance of the American health care system. Topics include the design of health care services organizations, modes of delivery, and access to as well as cost and quality of health care services. Activities include lecture, discussion, exercises and group presentations. Prerequisite: junior standing or permission.

SCED 320. The Legal Environment of Health Care. 4 semester hours.

An examination of the laws, policies and regulations that constitute the legal environment of the American health care system. Topics include the foundations of tort law, licensing and accreditation, liability of health care providers and institutions, regulatory control and bioethics. Prerequisite: junior standing or permission.

SCED 340 Readings in Leadership. 4 semester hours.

Students will read full texts and excerpts from a selected "Top Ten" classic authors in leadership, including Plato, Machiavelli, Drucker, Deming, and Peters. Principal theories of leadership, particularly those relating to business organizations and the effects of historical and economic contexts in shaping them, will be examined. The course objective is to develop a historically grounded understanding of the ways organizations develop and the manner in which leaders operate within them. Projects in the course will be designed to develop a mature set of insights into one's work organization.

SCED 400. Senior Leadership Seminar. 4 semester hours.

A synthesis of learning from previous study and experience developed into a major report in which the student identifies a problem or process in an organizational setting, provides analysis, and proposes appropriate action. The inquiry process, developed in conjunction with the instructor and through activities with the group, addresses the dimensions of both management and leadership. Students present their report in writing to the instructor and orally to the seminar group. The report also serves as the basis for the oral senior assessment presentation for the major. Prerequisite: senior standing and completion of at least four major courses, including the Liberal Studies Colloquium. Writing intensive.

SCED 490. Independent Study. Variable credit.

Individual study that requires approval of the faculty member directing the study and the Dean of the School of Community Education.

SCED 491. Internship. Variable credit.

Individual study centering on a supervised work site or community project. Requires approval from the faculty member directing the study, the work site supervisor, and the Dean of the School of Community Education.

SCED 499. Liberal Studies Honors Thesis. Variable credit.

Prerequisite: 3.50 GPA and permission of the Dean.

### **Further Information**

The administrative office of the School of Community Education is located in the Joseph C. Shouplin Center for Lifelong Learning at 737 N.. Additional information can be found on the School of Community Education Web site.

## Prizes & Awards

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### Prizes and Awards

A wide range of prizes and awards recognizes outstanding achievement by students. Award recipients must comply with rigorous merit criteria and demonstrate strong potential for future success. Additional information is available in the online student handbook, which details the variety and scope of each prize and award

#### Art

##### Ralston Thompson and Wittenberg Guild Awards

These monetary awards are given by the art faculty in recognition of outstanding work within the Art Department.

#### Athletics

##### The Carl Schraibman Higher Education Scholarship Award

An anonymous gift in 1999 created this award to recognize Dr. Carl Schraibman and the value he placed on the educational experience and the importance of advancing oneself through post-graduate education. The recipient must be a student-athlete who has been accepted into a graduate program and exemplifies the ideals of Wittenberg.

#### Biochemistry and Molecular Biology

##### Faculty Award for Outstanding Achievement in Biochemistry and Molecular Biology

This award is given in recognition of seniors with exceptional achievement and strong potential in biochemistry and molecular biology.

#### Biology

##### Biology Faculty Award

This award is given to the sophomore, junior and senior biology majors who have demonstrated outstanding achievement in the study of biology.

##### Emmet Bodenbergs Award

Given to the outstanding environmental biology junior or senior biology major.

##### Health Careers Award

Given to the outstanding senior major intending to continue study in the health-related fields.

##### Waldo Nelson Research Award

Given to the biology student submitting the best proposal for summer research.

#### Marga Smith Award

Given to the upperclass biology major in recognition of excellence in scholarship and devoted service to the department.

#### Tri-Beta Award

This award is given annually to one or two students voted by the Tri-Beta Honorary as the outstanding biology major(s) in the senior class.

### **Chemistry**

#### Outstanding Performance in General Chemistry

Two awards are presented annually for outstanding performance in general chemistry. Each award recipient receives the current edition of the Handbook of Chemistry and Physics.

#### Outstanding Performance in Organic Chemistry

The award is given for outstanding performance in organic chemistry. The honored student receives the current edition of the Merck Index.

#### American Chemical Society Award in Analytical Chemistry

The award is given for outstanding performance in the analytical chemistry course. An 18-month subscription to the Journal of Analytical Chemistry accompanies the award.

#### Virginia Ellis Franta Award

This award is given as a stipend to support chemistry majors performing summer research at Wittenberg under the direction of a chemistry faculty member.

#### Paul K. Glasoe Endowment Award for Chemical Research

This award, in honor of Professor Emeritus Paul K. Glasoe, is a stipend to support a chemistry major performing summer research at Wittenberg under the direction of a chemistry faculty member.

#### James T. Gregory Award

The award is given to the junior or senior chemistry student most likely to succeed in chemical research.

#### Mufaro Hove Research Award

This award, in honor of Mufaro Hove '63, is given as a stipend to support students performing summer research under the direction of a chemistry faculty member.

#### American Chemical Society-Dayton Section Award

This award recognizing an outstanding junior chemistry student provides a \$300 stipend.

#### Nelson E. Sartoris Award for the Outstanding Senior Chemistry Major

The award will recognize the outstanding senior, as determined by the department of chemistry faculty, with a cash prize.

## **Communication**

### Laurels in Communication

Given to a major who demonstrates academic excellence, personal integrity, a commitment to community, and the motivation and potential to use advanced knowledge of communication toward socially responsible ends.

## **East Asian Studies**

### Shigeharu Matsumoto Award

This award, given to the outstanding senior in East Asian Studies, recognizes superior academic performance and outstanding community service. The award honors Shigeharu Matsumoto for his leadership in the development of peaceful relations among the United States, Japan and China.

### Language Study Award

The award is given to the outstanding upperclass students of the Chinese and Japanese languages.

### Eugene R. Swanger Endowed Scholarship

This scholarship is awarded in the sophomore year to a religion or East Asian studies major who demonstrates high academic ability and promise as an East Asian studies scholar. The award, which is for the junior year, may be used for off-campus study related to Asian studies. The award honors the outstanding teaching and service of Eugene R. Swanger, Professor of Religion and East Asian Studies.

## **Economics**

### Economics Prize for Outstanding Achievement

Given to recognize economics majors who have maintained high standards in course work and research.

## **Education**

### Barbara Steel Kane Memorial Award

Through this award, the Education Department acknowledges a senior student's demonstration of excellence in the teacher education program and of service to the teaching profession. The award was established in memory of Barbara Steel Kane, a 1978 Wittenberg graduate who majored in elementary education and psychology and who died in an airplane crash in September, 1978.

### Virginia H. Lucas Silver Apple Award

This award celebrates the personal and professional contributions of Professor Emerita Virginia H. Lucas, an alumna of Wittenberg and a member of the education faculty from 1973 to 1992. This award is presented to a junior education student who exemplifies both personal and professional commitment to student-centered learning.

## **English**

The Excellence in Literary Studies Award.

The Excellence in Literary Studies Award was inaugurated in 2000 to recognize the senior English major whose literary scholarship best exemplifies subtle thinking, elegant writing and scholarly promise.

The John W. Ostrom Awards for Expository Writing.

The four John W. Ostrom Awards, worth \$200 each, are given annually for improvement and excellence in expository writing to first-year, sophomore, junior and senior students. John W. Ostrom, a late professor emeritus, was internationally known for his edition of the letters of Edgar Allan Poe and his widely adopted Better Paragraphs and Short Themes.

The Lester C. Cowl Creativity Award

The English Department Creativity Award was renamed the Lester C. Cowl Creativity Award in honor of the director of development at Wittenberg from 1965-1972. The \$200 award is given to the junior or senior English major who submits the best portfolio of creative work.

The Allen J. Koppenhaver Prize

Established in 1993, The Allen J. Koppenhaver Prize, funded by friends and colleagues to memorialize the late professor of English, is awarded annually to the senior English major who best represents the qualities epitomized by Dr. Koppenhaver: a keen intellect and a multifaceted creativity that produced superior teaching and scholarship.

Creative Writing Awards

The English Department awards the \$100 Sherwood Anderson Award in fiction, a \$100 award in poetry, a \$100 award in drama and a \$100 award in creative nonfiction.

## **Geography**

Martin E. Johnson Award

Through a fund established to honor the late Dr. Martin E. Johnson, associate professor of geography, an annual award is made to the junior geography major with the highest grade point average.

## **Geology**

Floyd R. Nave Award

This endowed award, given to an outstanding geology major pursuing geologic research, recognizes and honors the diverse contributions of this department's founder.

Thomas A. Gerrard Award

This endowment honors a former department chair, professor and consummate teacher, by supporting field experience for geology majors.

## **History**

#### ATO-Paul F. Bloomhardt Award

Through a fund established to honor Dr. Paul F. Bloomhardt, professor of history and biography from 1925 until his retirement in 1956, an award is made each year to an outstanding junior majoring in history.

#### Margaret S. Ermarth Award

Through the fund established to honor Dr. Margaret S. Ermarth, professor of history from 1953 until her retirement in 1974, an annual award is made to an outstanding senior majoring in history.

#### Martha and Robert G. Hartje Award

This award is given to a senior who has taken at least six courses in history, who recognizes history as a part of a basic philosophy of life, and who has demonstrated skill in the writing of narrative history.

### **Languages**

#### Kurt J. Fickert Award

This award is presented to an outstanding junior or senior majoring in foreign languages and literatures who possesses those qualities exemplified by Professor Fickert during his more than 30 years of service to the university: an understanding of and commitment to the humanistic values fostered by an education in the liberal arts, a lively interest in intellectual endeavor and achievement, and plans for a career that will enrich the lives of others.

### **Management**

#### Financial Executives Institute Award

This award is given to the graduating management student with a concentration in finance for academic achievement and career promise. The Columbus Chapter of the Financial Executives Institute provides an engraved medallion and a permanent plaque.

#### Tau Pi Phi Award

The Tau Pi Phi Award is given to the graduating management major who combines the highest academic achievement and significant contributions to the university. The department provides a permanent plaque.

#### Wall Street Journal Award

This award recognizes the graduating management major with the greatest potential for career success. Dow Jones and Company provides a one-year subscription to The Wall Street Journal, a medallion and a permanent plaque.

#### WittInvest Investment Award

This award is sponsored by WittInvest and recognizes students of high academic achievement who further the American free enterprise system via their knowledge of markets and investments.

### The Dr. Woodrow Wilson Prize for Excellence in Management

The widow and children of Dr. Woodrow Wilson, professor emeritus of business administration, created this honor in 1994 to give annual financial awards to student(s) who major and excel in management. The selected student(s) receive a cash prize.

## **Mathematics and Computer Science**

### Norman E. Dodson Award

This award was established by Richard A. Little to honor Norman E. Dodson, associate professor emeritus of mathematics, a member of the Wittenberg University mathematics faculty from 1957 to 1975. The award is given annually for excellence in preparing to teach mathematics or computer science. Seniors are eligible.

### Paul Hessler Award

This award was established in memory of Associate Professor Paul Hessler, a member of the Wittenberg mathematics faculty from 1969 to 1978. The award is given annually for outstanding achievement in mathematics or computer science. Juniors and seniors are eligible.

### Richard A. Little Fund

This award was established by Richard A. Little, a 1960 graduate of Wittenberg, to honor his parents, Charles and Elsie Little. The income from this fund is used to reward worthy achievement in mathematics and computer science, and is given to students majoring in mathematics or computer science.

### Sophomore Textbook Awards

These awards are given annually to sophomores majoring in mathematics or computer science in recognition of outstanding work during their first two years at Wittenberg. The award provides a \$100 credit toward the purchase of mathematics or computer science textbooks during the junior year.

### Computer Science 250 Award

This award is given annually to the outstanding first-year student in the introductory computer science sequence, Computer Science 150 and 250.

### Mathematics 202 Award

This award is given annually to the outstanding first-year student in the introductory calculus sequence, Mathematics 201 and 202.

## **Music**

### Elmer Blackmer Award

This award was established in memory of Professor Elmer Blackmer (1962-1974) and is presented to the music student who has shown outstanding achievement in music theory and music skills.

### Jan Bender Memorial Award

This award was established in memory of Professor Jan Bender (1965-1975) and is awarded to the senior whose performance both academically and musically has been excellent and whose contributions to the department of music have been outstanding.

## Philosophy

### The Remsberg/Klive Award

Established in honor of Robert G. Remsberg (professor of philosophy 1940-1975) and Visvaldis V. Klive (professor of philosophy 1966-1994), this recognition is given to the outstanding senior philosophy major and includes a book award.

## Physics

### Weaver Prize

The Weaver Prize in Physics provides a \$200 award to the junior student who shows the greatest promise for a career in physics.

### Arthur L. Lutz Award

The Arthur L. Lutz Award provides \$200 to a junior physics major who shows promise for a career in secondary physics education.

## Political Science

### Joe H. Bindley Scholarship

The Joe H. Bindley Scholarship, named for an emeritus professor of political science who is founding chair of the modern-day Political Science Department, recognizes an outstanding junior or senior political science major who has at least a 3.3 grade-point average, who demonstrates active leadership in the campus community, and who intends to pursue a course of study leading to law school, or who demonstrates an interest in American politics.

### Jeffrey Y. Mao Award

The Jeffrey Y. Mao Award, named for an emeritus professor of political science, is given in recognition of outstanding scholarship in the discipline by a political science major who has attained junior status. The award acknowledges achievement in the liberal arts, service to the political science department and the university, and promise of significant contribution to society.

## Psychology

### Award for Professional Potential

The Award for Professional Potential honors a senior student in psychology who has demonstrated the potential to make a significant professional contribution.

### Bethlehem Steel Award

The Bethlehem Steel Award recognizes an outstanding senior student in psychology for academic achievement and unique contributions to the psychology program.

### Virgil E. Rahn Memorial Award

The Virgil E. Rahn Memorial Award honors an outstanding junior student in psychology for superior work in the discipline and promise as a future psychologist.

## **Religion**

### David Hartman Award

Each year a \$150 prize is awarded to the outstanding senior in the religion department. The award, given in memory of David Hartman, associate professor of religion, is based on academic performance, ability of the student to relate the study of religion to the liberal arts, and the student's contribution to the religion department and its program.

## **Russian Area Studies**

### The Russian Studies Award in Excellence

This award honors the outstanding graduating senior major in Russian Area Studies who shows promise of continuing involvement in the field and who possesses superior leadership skills.

## **Sociology**

### T. Edwin Boling Sociology Scholarship Award

Named in honor of the late T. Edwin Boling, who was a member of the department of sociology for 27 years, this award is given to the outstanding senior sociology major who shows strong promise as a practitioner of the discipline.

## **Women's Studies**

The Women's Studies Writing award, sponsored by the Women's Studies Program, is presented for outstanding writing in any area of Women's Studies.

## **GENERAL PRIZES AND AWARDS**

### Alma Mater

This is the highest honor bestowed upon a woman at Wittenberg. Students, faculty or staff members may nominate a junior woman. A special screening committee selects five nominations for final consideration. A campus-wide election determines which nominee is selected to represent Wittenberg. The Alma Mater must possess depth of character and show consistent leadership, service and concern for the college community.

### Alma Lux

This is the highest honor bestowed upon a male at Wittenberg. Students, faculty members, and staff may nominate a junior male. A special screening committee selects five nominations for final consideration. A campus-wide election determines which nominee is selected to represent Wittenberg. The Alma Lux must possess depth of character and show consistent leadership, service, and concern for the college community. This award was instituted in 2003.

#### Broadwell Chinn Endowed Achievement Award

This award was endowed by Dr. George D. and Gertrude Holmes Wilson '24, in memory of Mr. Broadwell Chinn, the first African-American student at Wittenberg. The fund annually provides a monetary award to the African-American junior student with the highest cumulative grade-point average.

#### Heimtraut Dietrich Award

This award, established in 1981, is in remembrance of Heimtraut Dietrich, who served Wittenberg as administrator and teacher through her commitment to excellence and a caring for others, attributes that found their source in her steadfast Christian faith. It is presented to the student who best exemplifies the dedication to serve and assist others through a commitment of faith.

#### M. Alice Geiger Award

This award was instituted in 1974 to commemorate the 100th anniversary of women at Wittenberg. The award recognizes a senior woman for a specific, outstanding contribution to the performing or literary arts, athletics, extracurricular leadership, new programming, special academic pursuit, or special representation. The student's contribution may have been made at any time during her college career.

#### Global Awareness Award

This award, established in 1992, recognizes a graduating senior whose varied activities have contributed significantly to international understanding on campus.

#### Martin Luther King, Jr., Award

This award, instituted in 1981, recognizes two outstanding African- American seniors, a man and a woman, who have been positive examples to members of the African-American community and the University during their college careers. Consideration is given to those students who have pursued a challenging course of study, exhibited upstanding character in and outside the classroom, displayed leadership, good citizenship, and an orientation toward service to others, and exhibited a positive attitude toward higher education in general and an interest in furthering the ideal of African-American achievement at Wittenberg.

#### John F. Mitchell Award

This award, named for the first valedictorian at Wittenberg, was instituted in 1979. It recognizes a senior man who represents the liberal arts tradition: a highly respected, good student who is a positive force in academic, cultural and social aspects of the campus. He exemplifies an open mind, understanding, reliability and wide range of interests.

#### Presidential Scholars

Presidential Scholars are the junior students having the 12 top grade-point averages of their class through at least the preceding five semesters.

## **HONOR SOCIETIES**

### Alpha Lambda Delta

Alpha Lambda Delta is a national honor society that seeks to recognize and encourage scholarship among first-year women. Selection is based entirely on achieving a 3.5 grade-point average for fall semester of the first year. Tapping, or notification of membership, occurs in the spring semester.

### Phi Eta Sigma

Phi Eta Sigma is a national honor society that seeks to recognize and encourage scholarship among first-year men. Selection is based entirely on achieving a 3.5 grade-point average for fall semester of the first year. Tapping, or notification of membership, occurs in the spring semester.

### Ivy Ring

Ivy Ring is a junior women's service honorary. Members are chosen in the spring of their sophomore year on the basis of their contributions to the Wittenberg campus and to the community through the quality of their academic work and their participation in extracurricular activities.

### Pick and Pen

Pick and Pen is a junior honorary emphasizing leadership, service and scholarship. Members are tapped during the spring semester of their sophomore year.

### Omicron Delta Kappa

Omicron Delta Kappa is a national leadership honor society recognizing leadership in scholarship, athletics, university publications, cultural life and student affairs. Members are tapped during the spring semester of their junior year.

### Order of Omega

Order of Omega is a national leadership honor society recognizing leaders in fraternities or sororities who exemplify scholarship, leadership and service. Members are tapped in the spring semester of their senior year.

### Mortar Board

Mortar Board is a national senior honorary recognizing scholarship, leadership and service. Candidates must have a 3.3 grade-point average and excel in both curricular and extracurricular leadership and service to the Wittenberg community. Mortar Board is particularly concerned with advancing the status of women in society.

### Phi Beta Kappa

Founded at the College of William and Mary in 1776, Phi Beta Kappa is the oldest and most prestigious of the national honor societies. Students are normally elected as seniors or in special cases as juniors. They must be majoring in one of the liberal arts or sciences, have a high grade-point average, have taken a variety of courses across the liberal arts spectrum, and have demonstrated a knowledge of mathematics and a foreign language appropriate to a liberal arts education.

### Chi Alpha Sigma

Chi Alpha Sigma is a national college athlete honor society founded in 1996. Members must be of junior class standing, have a 3.4 or higher cumulative grade-point average, be of good moral character, and have earned a letter in a varsity intercollegiate sport.

### DEPARTMENTAL HONOR SOCIETIES

- Biology, Beta Beta Beta
- Communication, Lambda Pi Eta
- East Asian Studies, Epsilon Alpha Sigma
- Economics, Omicron Delta Epsilon
- Education, the Wittenberg Education Honorary
- English, Sigma Tau Delta
- Foreign Languages, Sigma Delta Epsilon
- French, Phi Sigma Iota
- Geography, Gamma Theta Upsilon
- German, Delta Phi Alpha
- History, Phi Alpha Theta
- Management and Economics, Tau Pi Phi
- Philosophy, Phi Sigma Tau
- Political Science, Pi Sigma Alpha
- Psychology, Psi Chi
- Sociology, Alpha Kappa Delta

### SCHOOL OF COMMUNITY EDUCATION

#### Alpha Sigma Lambda

Wittenberg houses the Eta Sigma chapter of this national honorary society for adult students. Criteria for selection are: adult/non-traditional status, completion of at least 24 semester hours at Wittenberg with at least 50 percent being outside a single discipline, and a cumulative GPA in the top 10 percent of SCE students at this credit level. Induction is held annually.

#### Excellence in Liberal Studies Award

Eligibility requires a major in liberal studies and completion of at least 44 Wittenberg semester hours, preferably over the most recent three calendar years. The Community Education Committee bestows the award on the student who, in its judgment, most fully embodies high academic achievement and realization of the principles of the liberal studies program. The person selected receives a plaque and a gift that celebrates the student's connection to the University.

## Student Life

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Wittenberg is not a 9 a.m. - 3 p.m., Monday through Friday school. Classes meet an average of only 15-20 hours a week. And even with eight hours of sleep every night, that still leaves 92 hours a week (or more than 13 hours a day) for eating, studying, doing laundry and getting involved in a lot of activities with your friends.

The Student Development mission at Wittenberg University is to strive to develop leaders who act morally, think critically, and serve others. Student Development seeks to incorporate the in and out of classroom experiences by offering a variety of academic clubs, student organizations, fraternity and sorority experiences, honor and recognition societies, student government, media opportunities, and other groups. Of course each one of these organizations requires management and leadership. The number of organizations and the relatively small number of students in each result in virtually all students gaining leadership experience while at Wittenberg. These experiences translate into professional abilities such as the development of motivational, organizational, participatory and management skills.

And getting involved is what student life at Wittenberg is all about. Wittenberg is known nationwide for having one of the most active student bodies of any university in America.

### Clubs

Wittenberg has more than 135 different clubs that provide a base for student involvement, and new organizations spring up regularly to meet the changing interests of our students. A student activities booklet, published annually, describes each club and organization.

Current groups include Voices, Caving Club, Hockey Club, WUSO radio station, East Asian Studies Club, Marketing Club, sports clubs, Pre-med and Pre-law associations, Weaver Chapel Association, Jewish Culture Club, Hispanic Culture Club, American International Association, History Club, Habitat for Humanity, Conservation Club, Primetime, Thinker's Club and many others.

The Concerned Black Student (CBS) organization operates the Black Culture House, a center for students to relax and socialize. Originally, CBS was created for African-American students but now offers cultural awareness to all Wittenberg students.

### Student Publications

Wittenberg students publish *The Wittenberg Torch*, a weekly newspaper; *The Witt*, the annual yearbook; *The Wittenberg Review of Literature and Art*, a literary magazine; *Spectrum*, a journal of crosscurricular essays; and the *East Asian Studies Journal*; the *History Journal*, a *Political Science Journal*; and *Pholeos*, a journal of student research published by the Wittenberg

University Speleological Society. In addition, the Student Senate supports most of these academic publications.

### **Departmental Organizations**

Each academic department at the university has a club, honor society, or association to serve student interests. There also are forums for discussion, social activities and professional advising.

### **Honor Societies**

Honor societies at Wittenberg include Phi Eta Sigma and Alpha Lambda Delta for first-year students; Ivy Ring and Pick and Pen for juniors; and Mortar Board and Omicron Delta Kappa for seniors. Wittenberg is also one of the only 242 colleges that has a chapter of Phi Beta Kappa, the preeminent honor society for students in colleges of liberal arts and sciences.

### **Student Government**

Students participate actively in all forms and levels of campus government. The Wittenberg Student Senate, with an annual budget of more than \$250,000, serves as a liaison among students, administration and faculty. Under the authority of the university faculty, it can recommend policies pertaining to student social activities, organizations, residential and disciplinary regulations, and other aspects of campus life. In addition, it provides for the election and selection of student members to various policy and task committees of the faculty and the board of directors. Eight members of the Student Senate have voting privileges on faculty issues.

The Residence Hall Association (RHA) is the active governing body for students who live in campus residence halls. The elected officers and a representative from each of the eight halls assist in developing a residence hall environment that is both stimulating and beneficial to Wittenberg students. The RHA program also provides events, activities and programs within each hall. The group works collaboratively with all the halls for specialty programming on issues of safety, college transition, resources, stress relief, holiday and social events, bowling nights, and movie nights.

### **Union Board**

A large number of students are involved in Union Board, an organization that plans various cultural, social and recreational programs for the Wittenberg community. Each week it schedules programs and entertainment including lectures, concerts, dances, movies, coffeehouses and comedians. Union Board annually sponsors Little Sibs Weekend, Homecoming concerts, New Student Days events, and Witt Fest.

### **Benham-Pence Student Center**

The Benham-Pence Student Center is the center of campus social life. Students meet in the lounge or lobby, check email in the Cyber Cafe, cash a check in the service center, buy books and supplies in the bookstore, pick up their mail, or attend a meeting.

Meals are served in the student center dining room and Post 95 (snack bar). Meal plan options allow students to select the programs that best suit their personal lifestyles. Post 95 is a place to visit with friends, discuss assignments, enjoy a Coke or a pizza, or just relax.

### **Intramurals**

The intramural program offers year-round activities for men and women. Students may participate in 27 different sports, including badminton, basketball, billiards, flag football, floor hockey, Frisbee golf, racquetball, soccer, softball, table tennis, tennis, volleyball, walleyball and many others. Approximately 60 percent of our students participate in at least one intramural sport. In intramurals, enthusiasm and staying in shape are the crucial ingredients, not necessarily talent.

## Intercollegiate Athletics

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Wittenberg has a long history of outstanding athletics and for fielding winning teams in many different sports. Even as our academic programs have gained nationwide visibility and stature, the athletic programs have continued their success.

The Department of Athletics is committed to the pursuit of academic and athletic excellence. Our primary goal is to provide the opportunity for students to experience the personal challenge and enjoyment of high-level competition along with their academic endeavors. The 11 men's and 12 women's varsity teams enjoy 30 percent participation from the student body.

We also take great pride in the number of Wittenberg student athletes who have been named Academic All-America throughout the years.

### Men's Varsity Sports

Intercollegiate teams for men are available in these 11 sports:

- Baseball
- Basketball
- Cross Country
- Football
- Golf
- Indoor Track
- Lacrosse
- Outdoor Track
- Soccer
- Swimming & Diving
- Tennis

Nationally, Wittenberg has won championships in football and basketball in the National Collegiate Athletic Association's Division III. An impressive number of Wittenberg student athletes have been named All-America.

### Women's Varsity Sports

Intercollegiate teams for women are available in these 12 sports:

- Basketball
- Cross Country
- Field Hockey
- Golf
- Indoor Track

- Lacrosse
- Outdoor Track
- Soccer
- Softball
- Swimming & Diving
- Tennis
- Volleyball

Titles won by Wittenberg women athletes range from state tennis and field hockey championships to a national first-place finish in the high jump in track and field. Recent Tiger All-Americans have been named in field hockey, basketball, lacrosse, swimming, tennis, soccer, volleyball, and track and field.

### **NCAA Division III**

Wittenberg is a member of the North Coast Athletic Conference — a NCAA Division III conference. This conference brings a group of institutions that share common commitment to academic quality and to the conduct of athletics to support their educational purposes. Conference members include:

- Allegheny College
- College of Wooster
- Denison University
- Earlham College
- Hiram College
- Kenyon College
- Oberlin College
- Ohio Wesleyan University
- Wabash College
- Wittenberg University

### **Athletic Facilities**

Wittenberg's athletic facilities are among the finest in the nation. They include the main Health, Physical Education and Recreation Center, completed in 1982, with a main unit that can be configured as three full-sized basketball courts, three volleyball courts, or three tennis courts. A second unit houses six handball courts and a 25-meter by 25- yard swimming pool with a separate diving well, and one-meter and three-meter diving boards.

The facilities also boast a 6,000-square foot Fitness Center, equipped with free weights, nautilus and aerobic equipment. Edwards- Maurer Field, one of only 12 artificial turf playing fields in NCAA Division III, is the home to field hockey, men's and women's lacrosse, and football, and was completed in 1993. Also completed in 1993 is Earl Morris Track, a 400-meter, world-class facility. The state-of-the-art David and Georgiana Albright Tennis Courts were completed in 1997. Other facilities include the Bill Edwards intramural and soccer fields and the Betty Dillahunt softball field.

## **Club Sports**

The level of competition in a club sport is as intense as it is in intercollegiate athletics. Participants in club sports play against colleges in the Midwest. Club sports include men's and women's rugby, ice hockey, men's volleyball, cricket, archery, cycling, women's golf, and men's and women's crew. Club sports allow participants the thrill of competition without the time commitment of intercollegiate athletics. Club sports depend upon the athlete to provide more than talent; they require a commitment to joyous competition.

## **Policy on University Athletics**

Wittenberg's first concern is for the strength and integrity of the academic program. Beyond that, Wittenberg believes that there is a place for many extracurricular activities, including sound athletic programs. All facets of the university's co-curriculum, however, must be kept in proper balance and evaluated in terms of educational objectives. In athletics this means, among other considerations, wide participation by all students, both men and women, in many different sports and activities, both intercollegiate and intramural, and an appropriate emphasis on and provision for recreational sports and less formally organized play.

For men's and women's intercollegiate sports, Wittenberg University will compete in the North Coast Athletic Conference, which includes traditional rivals, and with colleges and universities whose academic character and size make them similar to Wittenberg. Our aim will be to participate competitively within our conference, rather than to build our program around the goal of winning national championships. This aim does not exclude playing a few strong nonconference teams or participating in a post-season tournament when, from time to time, the relative strength of our team within our conference qualifies us to represent the conference in such competition.

Our formula for competition will consist of including on our teams only student-athletes who combine an interest in academic scholarship with a keen desire and a proven ability for intercollegiate athletic competition with similar students at comparable institutions. Wittenberg shall provide such men and women with excellent coaches, appropriate equipment, and adequate facilities on the basis of equality and without discrimination of any kind, including discrimination by individual sports, race, or gender.

## Cultural Life

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The Wittenberg Series of distinguished lectures and artistic events enriches Wittenberg's academic environment. Throughout the year, students may attend (free of charge) lectures by respected scholars and public figures, concerts and performances by internationally recognized performers and companies, and art exhibits. Further, the university's membership in the Cincinnati Council on World Affairs brings foreign affairs specialists to the campus each year.

Speakers brought to the campus address critical issues in public forums, lecture in classes, and meet informally with small groups of interested students and faculty members. Departmental colloquia (campus-wide symposia on specific topics) and the university chapel programs provide additional opportunities for interaction with wellknown scholars, theologians and political figures.

Notable among the distinguished authors, scholars, lecturers and performers who have recently visited campus are Rita Dove (U.S. Poet Laureate), Jonathan Sarna (historian), E. O. Wilson (biologist), Dudley Herschbach (Nobel Laureate in Chemistry), Calvin Trillin (writer and satirist), Peter Beinart and Jonah Goldberg (political commentators), Julian Bond (NAACP Chair), Kevin Powell (civil rights activist, writer and hip-hop historian), Twyla Tharp Dance, Hubbard Street Dance Chicago, John Corigliano (Pulitzer Prize-winning composer) and the Corigliano Quartet, Tomoe Kaneko Ensemble (Japanese shakuhachi virtuoso), the Shaolin Warriors, Second City, Reduced Shakespeare Co., and The Acting Company. All were impressed with the intellectual interests and friendliness of Wittenberg students, the dedication of the faculty, the beauty of the campus and the support of the community.

### Music, Theatre, Art and Dance

Wittenberg has a very active music program, with classes, events, and activities that are available to all students. Courses cover a wide variety of music — Western classical music (both old and new), world music, and popular music; the study of music from an analytical or historical perspective; and the study of music education itself. Music lessons (in voice, piano, and the various orchestral and band instruments) are open to all students, as is participation in music ensembles, including the Brass Ensemble, Chamber Singers, Flute Choir, Handbell Choir, Chamber Orchestra, Wittenberg Choir, Wittenberg Singers, and Wittenberg Symphonic Band. Concerts and recitals are presented on campus throughout each semester.

Dedicated to the study, development, and practice of theatre, Wittenberg's University Theatre serves as a center of theatre activity for all interested students. Each year it presents a series of main stage productions designed and directed by faculty members and guest artists in addition to another series of plays designed and directed by students. Productions of recent years include *Proof*, *The Learned Ladies*, *Picnic*, *The Laramie Project*, *My Fair Lady*, and *The Taming of the Shrew*. The Department of Theatre and Dance also presents a fall dance concert and a faculty and seniors spring concert. Besides these, there are both a student improvisation theatre group

called Pocket Lint and a student dance club. For students interested in the study of theatre and/or dance, the university offers a theatre major, a technical theatre minor, a theatre performance minor, and a dance minor.

The Ann Miller Gallery in Koch Hall hosts rotating exhibits of professional and student art.

## **Academic Policies and Procedures**

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### **Academic Advising**

A faculty adviser is assigned to each entering student. This faculty member is also the instructor in one of the student's first semester courses. The adviser is available to explain program options and planning, to discuss graduation requirements, and to assist with pre-registration. Every student is urged to consult an adviser during each semester to review the student's program, progress and plans.

Although the student may request a change of adviser at any time, generally the student retains the adviser until declaring a major. At that time the student requests an adviser in the department in which the major is declared. Each department assists its junior and senior advisees in planning their programs of study.

The advice of the faculty adviser does not constitute a promise or a contract ensuring a student's graduation on schedule or the completion of specific requirements. The responsibility for understanding and meeting degree requirements rests entirely with the student.

### **Declaration of Major**

To ensure the student's in-depth understanding of at least one area of knowledge, the requirements for a departmental or major concentration must be fulfilled.

To satisfy this requirement, the student must select not later than the end of the Spring semester of the sophomore year a department or program in which to concentrate. Early declaration is possible (and encouraged) for majors that require a carefully planned program of study. Registration for the junior year is not permitted until a major declaration has been filed with the Registrar's Office. Declaration of the major is made through the Department Chair and by filing with the Registrar.

### **Amount of Work to Be Carried**

A normal load is 16 hours per semester. A student must carry 12 semester hours to be full-time. Full-time tuition covers 12 through 19 semester hours. A student who wishes to carry more than 19 semester hours must request permission to overload by petitioning the Assistant Provost for Academic Services. The 20th credit triggers the first percredit overload charge, with each additional credit generating an additional fee.

### **Registration**

A student is expected to register for the next semester during the designated registration period. The registration dates are published in the University Calender and the Master Schedule each

semester. Under certain circumstances, approved by the Registrar, a student may register during the first week of classes. The university reserves the right to cancel classes having low enrollments at the end of the registration period.

### **Change of Registration**

A student may add/drop normal 15-week courses according to the following schedule:

1. Adds are permitted only during the first week of the semester.
2. Drops without penalty are permitted through the fifth week of the semester.
3. Drops with a grade of "W" are permitted through the 10th week of the semester. All drops/withdrawals after this date appear on the student transcript with a grade of "F." (However, first-year students in the first semester of their enrollment, not including transfer students, may withdraw late from one course and receive the mark of W for that course, through the last official day of classes. The petition for late withdrawal must be signed by the instructor for the course and the student's faculty adviser. Students should submit the withdrawal to the Office of the Registrar, not later than the last official day of classes.)

Note: Courses that meet for fewer than 15 weeks have different deadlines. Please consult the Master Schedule for appropriate dates.

All changes must be filed with the Registrar's Office on an Add/Drop form before the specified dates. Credit or grades may not be adjusted on the academic record unless the appropriate forms have been correctly filed before the deadline. Changes of registration that occur after the first day of the semester do not qualify a student for a refund of tuition or overload fees.

### **Auditing Courses**

Auditing courses is permitted if a petition to audit is first approved by the professor whose course it is to be audited and then by the Registrar's Office. The student must also agree in writing not to expect credit for the audited course at any future time. The student is not required to take examinations and is not given a grade (instead of a grade, the mark of "L" will appear on the student's transcript). Verification of auditor's status must be confirmed by the instructor of the course prior to entry on the student's permanent record. Permission to Audit forms are available in the Registrar's Office. A traditional student who audits a course is billed for one credit of overload fee for the course.

### **Repeating Courses**

If a student repeats a course, the credit value and grade received from the last registration is used to compute the grade point average. Only the credits earned from the last registration count toward the graduation requirement of 130 semester hours, major requirements, or other requirements. A student's transcript shows both the original grade for the course and the grade earned when the course was repeated. Only academic work that has been taken at Wittenberg is repeatable and it can be repeated only with a Wittenberg course.

## **Degree Audit**

A degree audit is a computerized review of each student's course transcript matched against the university's requirements for a degree. Except for progress in some majors and residency requirements, it tells the student's standing relative to graduation at a given moment. A degree audit is available online. Other than faculty advisers and university officials, third parties cannot receive copies. An audit is a planning aid only. Its accuracy is not guaranteed, and it cannot be considered a promise or a contract between the university and the student. The student is responsible for reporting printed audit errors to the Registrar. The responsibility for understanding and meeting degree requirements rests entirely with the student.

## **Transferring Courses**

Credit for course work taken at any institution accredited by an agency approved by the U.S. Department of Education, including distance-learning courses, may be applied toward the completion of a Wittenberg program, subject to review by the Registrar, the Director of General Education, and/or the Chair of the Department in which the credit is requested.

1. Transfer credit from semester system institutions is evaluated and placed onto the academic record on a 1:1 ratio, e.g., three semester hours are evaluated as three semester hours on the academic record.
2. Transfer credit from quarter system institutions is evaluated and converted to semester hours on .67:1 ratio, e.g. four quarter hours are evaluated as 2.68 semester hours on the academic record.
3. The Registrar, in consultation with the Director of General Education, determines how, or whether, transfer credits may satisfy general education requirements. The Department Chair determines how, or whether, transfer credits may satisfy requirements in the department's major and minor programs. The student may be asked to present a portfolio of work, syllabi, or other materials to assist with this determination and to establish placement in a major or minor program. At least 50 percent of the credits required for a major program must be taken in residence.
4. In applying transfer credits to general education requirements, three semester hours are sufficient to fulfill a four -semester-hour requirement. This rule can apply to major requirements if prior approval has been granted by the Department Chair.

Although the grades granted for the transfer work appear on the transcript, they are not calculated into the GPA.

An enrolled student who completes a course at another institution in mathematics, computer science, or statistics (including Management 210 and Psychology 107) will receive transfer credit at Wittenberg only if the student has met the prerequisites for the course at Wittenberg.

Course work to be taken through international education programs sponsored either by Wittenberg University or by other accredited institutions must be approved by the Office of International Education at Wittenberg prior to enrollment in the program.

Grades are reported for all study abroad programs (including affiliated domestic programs) as they are transmitted to the Registrar. The grades are shown on the transcript but not calculated in the GPA.

Transfer credit is not accepted for courses in which the content has already been included in previous credit on the record. Transfer credit is also not accepted for a course taken at an institution affiliated with the Southwestern Ohio Council for Higher Education if the course is available at Wittenberg.

Also, work taken at another institution does not count under the repeat rule; i.e., the grade earned at the other institution does not replace the grade earned at Wittenberg.

### **Advanced Placement (AP)**

Superior students have the option of receiving advanced placement. Advanced placement is generally based on scores received on standardized examinations in such subjects as English, foreign languages and mathematics. Advanced placement and credit are granted for a grade of 4 or 5 on any Advanced Placement Examination of the College Entrance Examination Board (CEEB). Based on departmental recommendations, advanced placement and/or credit is granted for a grade of 3. Neither placement nor credit is granted for a grade of 2 or 1.

Notification of placement and/or credit is made soon after a student's arrival on campus.

### **Internship and Independent Studies**

A student may earn credits by participating in internship opportunities or independent studies supervised by a faculty member. In order to participate in either of these opportunities, the student must have completed the sophomore year and be in good academic standing with a cumulative grade point average of 2.000 or better. The student must fill out the appropriate form with the supervising faculty member, secure all necessary signatures and submit the form by the semester deadline for adding courses. Independent Study forms are taken to the office of the Assistant Provost for Academic Services for final approval. Internship agreement proposals are approved in the office of the Assistant Provost for Off-Campus Programs. A student must register for an internship experience during the period the internship is completed. Credit will not be granted for an internship completed in a prior semester. A total of 16 semester hours of credit through a combination of internships, independent study, and/or senior thesis is permitted. A maximum of eight hours of internship credit is possible.

### **Placing Out**

A student may request to place out of any required course or any prerequisite course in the curriculum by taking and passing an examination. To gain permission to take the examination, the student should present reasonable evidence of preparation to the department responsible for the course.

### **Credit by Examination**

A student may also acquire credit by examination. However, a student may not receive credit for any course that includes content for which a grade has already been received (including NC or F) or that was audited officially or unofficially.

The chair of the department and the instructor of the course in which credit is to be earned must approve the student's petition to attempt credit by examination. The petition must also be approved by the Assistant Provost for Academic Services. After all approvals are granted, the student must then pay the appropriate fee (cost of one overload credit) before taking the exam. The grade for the examination appears on the student's transcript.

### **Cross-Registration**

A student registered for 12 or more credits may cross-register for a course offered by a member of the Southwestern Ohio Council for Higher Education (SOCHE). The student may register only for courses that are not offered at Wittenberg. There is no additional billing as long as the student's total credits for the semester remain below 20. Registration forms are available in the Registrar's Office.

### **The Class Day**

A typical four-semester-hour class meets three hours per week, normally in one of three patterns: three 1-hour (MWF), two 1.5-hour (TTh), or one three-hour period. A few classes may be held on a daily basis. Some schedule additional laboratory periods.

### **Attendance**

Each Wittenberg student is expected to attend class except for reasons of ill health, of travel mishaps, or of illness or death in the family. From time to time legitimate educational activities or participation in university-sponsored co-curricular activities may result in student absences. In such cases, the faculty or staff members planning these activities should weigh carefully their educational benefits.

A student's absence from class due to any of these circumstances is considered excused. Nonetheless, each student is expected to meet the academic responsibilities for each course, even though excused from class. Faculty members are expected to cooperate in helping the student to meet these responsibilities.

The Health and Counseling Center provides written verification of illness only when the university physician orders hospitalization or strict bed rest for a specific affliction.

The following procedures are to be followed for excused absences:

1. In each case, the student should tell the appropriate faculty members the circumstances of the absence and should request assistance in meeting academic responsibilities. This should be done before the absence, if possible.

2. Faculty or staff members sponsoring group activities should submit the names of the participating students to the Assistant Provost for Academic Services, who provides all faculty with a roster of the persons involved, explains the reason for the absence and identifies the date(s) on which the students are to be absent.
3. A student or faculty member may ask either the Dean of Students or the Assistant Provost for Academic Services to clarify the circumstances of an absence and to verify that the absence is excused.

### Grading System

The letter grades A, B, C, D, NC (No Credit), S (Satisfactory), and F are awarded by instructors and describe the student’s performance relative to the expectations of completed course work. The first four grades may be further described by the use of a plus (+) or a minus (-) sign to indicate a greater or lower level of achievement for that letter grade. Marks of I (incomplete), L (audited course work), X (satisfactory, course in progress), NR (no report), W (withdrawal), and XF (failure due to academic dishonesty) may also be given under appropriate circumstances.

### Grade- Point Average

For the letter grades A, B, C, D, including any related pluses or minuses, and for the grade F, the Registrar determines a grade-point average by dividing the total number of quality points earned (semester hours for each graded course times the quality-point factor for the grade awarded) by the number of graded semester hours attempted. The following chart gives the quality points for each grade. The semester and cumulative grade-point averages reflect only course work so graded and are the averages used to determine scholastic standing, certification for selected honors, qualifications for graduation and other actions based upon a grade-point average.

Description	Grade	Quality Points
Outstanding performance	A+	4.000
	A	4.000
	A-	3.667
Good performance	B+	3.333
	B	3.000
	B-	2.667
Adequate performance	C+	2.333
	C	2.000
	C-	1.667
Marginal performance	D+	1.333
	D	1.000

	D-	0.667
Failure	F	0.000
	XF	0.000

Mark	Descriptor
S	Satisfactory, Credit Earned
NC	No Credit
I	Incomplete
X	Satisfactory, Work in Progress
L	Audited Course
NR	No Report
W	Withdrawn
XF	Failure due to Academic Dishonesty

### Significance of Grades and Marks

- ❑ Grades in the A range indicate outstanding performance characterized by distinguished achievement in all aspects of the course.
- ❑ Grades in the B range indicate good performance characterized by a high level of achievement in major aspects of the course.
- ❑ Grades in the C range indicate adequate performance demonstrating a basic understanding of the subject.
- ❑ Grades in the D range indicate marginal performance characterized by recognizable deficiencies but still deserving credit.
- ❑ A grade of F indicates failure to meet the minimum standards of the course. No academic credit is given for course work so graded, even though the grade is calculated into the grade-point average.
- ❑ A grade of XF is assigned as a sanction for academic dishonesty. It is recorded on the student’s transcript with the notation “failure due to academic dishonesty.” The grade of XF is treated in the same way as the grade of F for the purposes of grade point average, course repeatability, and the determination of academic standing.
- ❑ The marks S (Satisfactory) and NC (No Credit) are used in several circumstances:
  - An academic department or program may determine to use the S and NC marks for selected curricular offerings for all registered students in a course, subject to faculty approval.
- ❑ The Pass/Fail Option
 

A student may elect one course a semester under the Pass/Fail Option, provided that the

student is registered for a minimum of 15 semester hours in the case of traditional students, and 12 semester hours in the case of adult/non-traditional students. The election is to be made during the third week of the semester by completing the appropriate form available in the Registrar's Office. That a student has exercised this option for a course is known to only the Registrar, who converts the regular grade awarded to an S or NC mark. The S mark replaces all grades from C- to A+ inclusive; the NC replaces all grades from D+ to F inclusive. Neither the S nor the NC mark has any impact on the semester or the cumulative grade-point averages. Once elected, the Pass/Fail Option cannot be changed, nor can there be a subsequent reconversion of the grade. Students should be aware that graduate and professional schools are increasingly counting an S mark as a C when evaluating transcripts. Restrictions regarding this option are:

- If a student registers for a departmentally determined Pass/Fail course that is weighted at three or more semester hours, the student can make no other Pass/Fail course selection during that semester.
  - A student may not elect the Pass/Fail Option in course work of declared major programs.
  - This option may be used for courses related to the major program only at the discretion of the chair of the major department.
  - In case a student changes the declared major in which one or more courses have already been completed with a mark of S, such courses may be counted toward the requirements of the new major only with the written approval of the chair of the new department, a communication to be forwarded to the Registrar.
  - A Pass/Fail course with the mark of NC is not counted toward the minimum number of credits required for graduation.
- The mark I (Incomplete) is given only at the end of a semester in which course work has not been completed because of illness or other circumstances beyond the control of the student. The mark of I must be removed no later than the end of the eighth week of the next semester or it automatically becomes an F or NC (No Credit).
  - The mark X (Satisfactory, Course work in Progress) is given only at the end of a semester for certain kinds of course work that may properly carry over more than one semester. The X is replaced by a final grade at the end of the grading period in which the work involved is completed.
  - The mark L (Audited Course) is given to those students who, by petitioning the instructor and the Registrar's Office, have gained permission to audit a course.
  - The mark NR (No Report) indicates that a grade report is missing or has been left blank. The mark is replaced by the appropriate grade when the Registrar has been officially notified of a change.
  - The mark W (Withdrawal) indicates that a student, after filing a Change of Registration form with the Registrar's Office, has officially withdrawn from a course after the fifth week of the semester and before the beginning of the 11th week of the semester. This mark is also used when a student is suspended during the course of a semester for other than academic reasons. First-year students in the first semester of their enrollment may withdraw late from one course and receive the mark of W for that course, through the last official day of classes. The petition for late withdrawal must be signed by the instructor for the course and the student's faculty adviser. Students should submit the withdrawal to the Office of the Registrar, not later than the last official day of classes.

## **Notification of Grades**

At the end of each semester, a grade report is available online or can be requested from the Registrar.

## **Transcripts**

A permanent academic record is maintained by the Registrar's Office for each student who registers at Wittenberg.

Wittenberg student records are administered in accordance with the Family Privacy Act of 1974.

An official transcript of the academic record is available only upon the signed, written request of the student. A telephone request cannot be accepted. The request must be accompanied by a payment of \$3 per copy. Only official copies can be furnished. Normally, a transcript request is filled within three to five working days after receipt, though a longer time may be required at the end of each semester. An official transcript can be released only if the student's account is clear of outstanding balances and university holds.

## **General Academic Standards**

- ❑ The successful completion of 130 semester hours is a requirement for graduation.
- ❑ Cumulative grade-point averages of 2.000 for all work completed at Wittenberg University and of 2.000 for all course work used to meet the requirements of declared major and minor programs are requisites for graduation.
- ❑ At least 50 percent of the semester hours for all course work and 50 percent of the semester hours for course work in the major are to be completed while in residence at Wittenberg University. The student must be in residence for at least one of the last two semesters.
- ❑ The student is to maintain an acceptable rate of progress toward meeting both the cumulative grade average and the total semester hours required for graduation as defined in the standards for academic progress.

## **Student Classification**

A student is classified according to the number of semester hours successfully completed: sophomore standing is achieved with the successful completion of 32 semester hours; junior standing, 64 semester hours; and senior standing, 96 semester hours.

## **Eligibility for the Dean's List**

At the end of each Fall and Spring semester, a Dean's List announces the names of students who have earned a grade point average of at least 3.500 for a minimum of 12 graded semester hours. A traditional student who completes 12 or more graded semester hours over the summer session, with a GPA of at least 3.500 is also eligible for the Dean's List. Further, students so honored may not have received a grade of F or NC (No Credit) for the semester and may not have been

under disciplinary probation or suspension any time during the semester. Parents receive copies of the letters of notification. See below for criteria applying to adult / non-traditional students.

### **Eligibility for Academic Honors**

As a result of distinguished academic performance throughout their undergraduate education, graduating students may receive their degrees with academic honors. Students are awarded academic honors as follows: when the final grade-point average is between 3.500 and 3.699, the degree is conferred *cum laude*; between 3.700 and 3.799, *magna cum laude*, and between 3.800 and 4.00 *summa cum laude*.

### **Standards of Academic Progress**

Students are advised to complete 25 percent (32 to 33 semester hours) of the requirements in academic courses for the degree during each academic year. To meet acceptable academic standards, the student regularly enrolled as a degree candidate must accomplish the following:

- Achieve a minimum cumulative grade-point average of
  - 1.667 at the end of the first semester,
  - 1.750 at the end of the second semester,
  - 1.850 at the end of the third semester, and
  - 2.000 at the end of the fourth semester and thereafter.

Note: The Board of Academic Standards may send informal letters of warning or concern to students when the grade-point average or status shows signs of falling below acceptable levels. Such situations might include communications to first-year students awarded the NC (No Credit) mark as a replacement of an F grade and to students whose cumulative grade-point averages need to be raised to meet the progressively scaled minimums listed here.

- At the end of the fourth semester and each semester thereafter, maintain a grade-point average of 2.000 or better.
- Earn at least:
  - 24 semester hours by the end of the second semester,
  - 52 semester hours by the end of the fourth semester, and
  - 80 semester hours by the end of the sixth semester.

Note: This rate of accumulating successfully completed semester hours is a minimum standard and, if followed, requires nine to 10 semesters of acceptable academic work to meet the expectations for graduation.

### **Academic Probation**

A student is placed on academic probation when judged to be making less than satisfactory progress toward graduation:

- When the semester grade-point average or the cumulative grade-point average falls below stated minimums.
- When the rate of course completion falls below stated minimums.

A student is removed from academic probation when the semester and cumulative grade-point averages and the rate of course completion reach stated minimums. A student on academic probation may not receive a letter of good academic standing from the university.

Any student on academic probation must have the academic adviser's approval prior to adding, changing, or withdrawing from a class. Further, the student is to meet at least twice (in addition to the pre-registration conference) with the academic adviser during the semester to discuss current academic work and related matters. The adviser reports the nature of the discussion and recommendations considered to the Board of Academic Standards using the appropriate form. The forms are initially sent to the student, who is to take them to the adviser.

### **Academic Suspension**

Academic suspension occurs at the end of an academic year (except in the case of gross disregard of academic standards and responsibilities) and involves the involuntary and immediate withdrawal of the student from Wittenberg University for at least one full semester. A student is suspended as a result of any one of the following circumstances:

- A student fails to make sufficient progress toward meeting graduation requirements after being on probation for two or more consecutive semesters.
- Grave academic difficulty during the first year may not be known until the end of the second semester. In such cases, the Board of Academic Standards may decide to suspend a student when the extent of academic deficiency warrants this action.
- For gross disregard of academic standards and responsibilities, defined here as earning a grade-point average below 1.000 for any semester, the Board of Academic Standards determines the status of the student after a review of the student's grades for the current semester and previous semesters and of the reports of the student's instructors. A suspension for gross academic disregard may occur at the end of any semester.

### **Appeal of Academic Suspension**

The Board of Academic Standards does consider a timely letter of appeal from the academically suspended student but reverses its decision only when presented with new evidence of significant mitigating circumstances. The letter of appeal is to be typewritten and no more than two pages in length; it may include additional supportive information or give a corrective devised by the student. The Assistant Provost for Academic Services provides information regarding the appeal process. Should the appeal of academic suspension be granted, the Board of Academic Standards often stipulates a course of action specific to the student for the successful completion of future academic work. Should it be denied, the student may appeal further, but only in writing, to the Provost.

The communication to the Provost must contain new evidence that has not been considered by the Board of Academic Standards or demonstrate that the appeal did not receive a fair and an impartial hearing.

### **Re-admission after Academic Suspension**

A student suspended for academic reasons may be re-admitted on probationary status after being away for at least one full semester (excluding summer semester) by filing an application for re-admission with the Dean of Admission. A student on academic suspension may not receive a letter of good standing and may not receive credit for work taken at another institution during the period of suspension. It is the responsibility of the student to determine the readiness to return and accomplish academic work. The re-admitted student must strive toward being removed from the status of academic probation and must normally meet with minimal expectation of completing at least 12 semester hours with a semester grade-point average of 2.333.

### **Academic Dismissal**

If an academically suspended student is readmitted, continues to remain on academic probation and subsequently becomes liable for suspension a second time, academic dismissal results. Academic dismissal is a permanent separation from the University.

### **Academic Standards and Policies for Adult/Non-Traditional Students**

For adult/non-traditional students, the university uses academic standards, policies, and credit requirements for academic progress and eligibility for the Dean's List which are keyed to the pace of enrollment typical of these students. The University publishes these policies in the Faculty Manual and the School of Community Education Handbook for Adult/Non-Traditional Students.

### **Withdrawal During Semester**

A student who wishes to withdraw from the university during a semester must apply for permission to withdraw in good standing. A withdrawal during semester form is available at the Registrar's Office. When the withdrawal form is completed, the student should have an exit interview with a member of the Student Development staff before leaving campus.

The date of withdrawal determines the grades to be received for the courses in which the student has been enrolled:

- one-five weeks: — Without Grade or Credit
- six-10 weeks: — W(Withdrawn)
- 11-15 weeks: — F

It is the student's responsibility to petition the Assistant Provost for Academic Services if there are circumstances that would warrant a waiver of the above policy.

Pro-rated board refunds are available through the last day the student is in residence. This refund is contingent upon surrender of the meal ID card to the meal plan coordinator, a formal check-out with the residential hall coordinator, and an exit interview with a staff member in the Office of Student Development.

Tuition charges and charges for applied music lessons are refunded according to the following schedule:

one week or less — 90 percent refund  
two weeks or less — 80 percent refund  
three weeks or less — 60 percent refund  
four weeks or less — 40 percent refund  
five weeks or less — 20 percent refund  
more than five weeks — no refund

A student suspended or dismissed from the university for infringement of university regulations is allowed no financial refund of any kind for that semester.

Policies and procedures are different for the School of Community Education. Students withdrawing from SCE should contact the SCE Dean's Office for additional information.

### **End of Semester Withdrawal**

A student who withdraws at the end of any semester is required to apply for permission to withdraw in good standing. The form is available at the Registrar's Office. An exit interview with a member of the Student Development staff is required. The student who is interrupting attendance to study abroad or to participate in a special program may request a leave of absence.

### **Re-admission**

Any person who has withdrawn from the college or has been asked to withdraw is eligible to apply for re-admission upon completion of a formal application for re-admission. An application form may be obtained from the Registrar's Office. The completed application must be received by at least four weeks before the beginning of the semester in which the person wishes to re-enter the college.

An adult/non-traditional student who is absent from Wittenberg for two calendar years or longer must apply for re-admission. The student is subject to the academic requirements in force at the time of return. In extraordinary cases a student may appeal to the Registrar for continuation according to older requirements.

### **Code of Academic Integrity**

### **Preface**

Wittenberg University is dedicated to the pursuit of knowledge and truth. At the heart of our search for knowledge is personal honesty, an honesty that makes possible an open and vibrant exchange of ideas. True community and academic excellence thrive at Wittenberg through honesty, trust, and mutual respect. It is the aim of this Code of Academic Integrity to foster an atmosphere in which all individuals can reach their fullest potential as students and teachers and, ultimately as human beings.

### **Honor Statement**

All academic work submitted at Wittenberg will carry the honor statement. *“I affirm that my work upholds the highest standards of honesty and academic integrity at Wittenberg, and that I have neither given nor received any unauthorized assistance.”*

### **Definitions of Academic Dishonesty**

Academic dishonesty is a serious violation of community standards. It undermines the bonds between members of the community and defrauds those who may eventually depend upon our knowledge and integrity. Such dishonesty includes:

#### **Cheating**

Using or attempting to use unauthorized materials, information, study aids, or assistance in any academic exercise.

#### **Fabrication**

Falsification or invention of any information or citation in an academic exercise.

#### **Facilitating academic dishonesty**

Helping or attempting to help another to violate any provision of this code.

#### **Plagiarism**

Representing the words or ideas of another as one’s own in any academic exercise, either knowingly or through negligence.

### **Student and Faculty Responsibilities**

To achieve the aims of this code of academic integrity, every student, faculty member, and administrator is responsible for upholding the highest standards of personal integrity. It is expected that every member of the Wittenberg community will honor the spirit of the code by refusing to tolerate academic dishonesty.

It is the responsibility of the instructor to provide students with clear guidelines for what constitutes “authorized” and “unauthorized” assistance, and the responsibility of every student to seek clarification if in doubt about those guidelines. In cases of collaborative work, the Honor Statement applies to the contributions of each individual student within the collaborative group.

### **Honor Council**

The honor council is composed of six (6) faculty members, two (2) administrators and ten (10) students. Every year the faculty will elect two of its members to serve three-year terms. The Provost and the Dean of Students will each appoint an administrator to serve a three-year term. The students will be selected by a committee consisting of the chair and vice-chair of the Honor Council, two additional volunteer members of the Honor Council, and three students appointed by Student Senate.

This committee will strive to make the Honor Council representative of the diverse nature of the Wittenberg community. At least one student from each class will be a member of the council, and, once selected, student members will serve until they graduate. The Honor Council will elect a chair and vice-chair from its membership. The chair will be a student with at least one year's service on the council. The vice chair will be a faculty member with at least one year's service on the council.

The Honor Council has the following responsibilities and authority:

- a. To maintain and enforce standards of academic integrity.
- b. To create and conduct educational programming designed to promote academic integrity.
- c. To advise and consult with the student body, faculty members, and administrative officers on matters pertaining to academic integrity.
- d. To designate from among its members, students, administrators, and faculty to serve on Council Hearing Boards.
- e. To consider petitions for removal of the grade of XF from university records.
- f. To issue an annual report to students, faculty and staff, which would typically include a summary of cases, and a description of the Council's activities.
- g. To review policies and procedures of the Code of Academic Integrity and the Honor Council on at least a bi-annual basis and to recommend changes to the faculty and students.

The Honor Council will be advised by a faculty member appointed by the Provost, in consultation with the Faculty Executive Board, who will be known as the Honor Council Faculty Adviser. The adviser will be responsible for the oversight of the Honor Council and its processes.

## **Procedures for Honor Council**

### **Allegations of Academic Dishonesty**

If a faculty member suspects that a violation has occurred, the faculty member will make a reasonable effort to meet with the student(s) to inform him/her of the allegation. The faculty member and student will discuss the allegation, and agree to either pursue student/faculty resolution or refer the case to the Honor Council. If the student does not admit responsibility for the violation or disagrees with the sanction to be imposed by the faculty member, the student may request that the case be referred to the Honor Council. Faculty members are responsible for informing students of their option to refer the incident to the Honor Council for review at any time during the student/faculty resolution.

If a student is either unwilling or unable to meet with the faculty member within two weeks of notification, then the faculty member must refer the case to the Honor Council for review by a Hearing Board.

A student who suspects that a violation of the code of academic integrity has occurred should take some form of action. Ideally, the student will report that violation to the Honor Council using the form for student reports. In this report, the student should describe any action taken, such as talking with the person involved, or with a faculty or staff member. Every effort will be made to preserve the anonymity of the student reporting the incident; however, confidentiality cannot be guaranteed. Students might also report anonymously to the instructor, with or without naming individuals, or confront the individual(s) believed to be in violation of the code.

### **Student/Faculty Resolution**

If the student and faculty member agree to student/faculty resolution, they will discuss the case and the sanction to be imposed by the faculty member. If both student and faculty agree to the student's responsibility for the violation and to the sanction to be imposed by the faculty member, the faculty member writes a report to the Honor Council describing the incident giving rise to the allegations and informing them of

- a. the date, time, location of meeting or meetings with student,
- b. the nature of their conversations,
- c. the student's admission of responsibility for the violation,
- d. evidence and relevant supporting information,
- e. the sanction to be imposed,
- f. whether or not a hearing has been requested.

The faculty member will send copies of the report to the student and the Office of the Assistant Provost for Academic Services as the office of record.

All reports of academic dishonesty will be reviewed by the Assistant Provost for Academic Services to verify whether reports have been received indicating that the student has been found responsible for any other act of academic dishonesty. If the Assistant Provost for Academic Services finds that the case is a repeat offense, the case is automatically referred to the Honor Council for review by an Honor Council Hearing Board.

### **Honor Council Resolution**

Cases not resolved through student/faculty resolution will be referred for a hearing. A hearing is initiated when the Honor Council receives a report from the Assistant Provost for Academic Services of a request for a hearing by either the student or the faculty member.

### **Composition of Hearing Boards**

A hearing is conducted by a Hearing Board. The panel will normally consists of seven persons, six of whom will be voting members. Hearing Boards are made up of three students, two faculty

members, and one administrator selected by the Honor Council chair from the membership of the Honor Council. Determinations of the board will be by a majority vote (four votes or more). The chair or vice-chair of the Honor Council will serve as the Hearing Board chair and will vote only in the event of a tie. If the chair or vice-chair is unavailable or the caseload becomes unmanageable, the Faculty Adviser will appoint another member of the Honor Council to serve as chair of the Hearing Board.

### **Preliminary Procedures**

The initial report of an allegation of academic dishonesty will be reviewed by the Honor Council Chair and the Faculty Adviser, who will then appoint a Hearing Board and designate a chair of the Hearing Board. Following this, the chair of the Hearing Board will inform the student of the allegation in writing, including the faculty member's report. The chair of the Hearing Board will request a written statement from the student in response to the allegation, and, if the student so desires, he or she can submit a list of witnesses to appear at the hearing on the student's behalf. Witnesses are limited to individuals who can present evidence that bears directly on the allegation. The student's written statement will become part of the case and be reviewed by the Hearing Board in preparation for hearing the case, but it will not take the place of the student's presence at or comments within the hearing.

The chair will select the date, time, and place for the hearing and notify both the referring faculty member and the student by personal delivery or campus mailbox a minimum of five (5) business days prior to the hearing. Either the chair or vice-chair (whichever one is not presiding at the hearing) or the faculty adviser will meet with the student to review hearing procedures and process. He/she will also meet with the student following the hearing to discuss the ramifications of the findings and the student's options for appeal.

Students have the right to object to any member of the Hearing Board they believe to be biased in the case. In cases where the student objects to a member of the Hearing Board, the chair of the Honor Council and the Faculty Adviser will decide whether or not to act on that objection. Members of the Hearing Board have the responsibility to recuse themselves from cases in which there is a conflict of interest.

### **The Hearing Board Process**

The purpose of a hearing is to explore and investigate the incident giving rise to the appearance of academic dishonesty and to reach an informed conclusion as to whether or not academic dishonesty occurred. All persons at a hearing are expected to assist in a thorough and honest exposition of all related facts. Honor Council Hearing Board proceedings are not a court of law, and attorneys are not permitted to be present at any hearings.

The sequence of a hearing is necessarily controlled by the nature of the incident to be investigated and the information to be examined. It lies within the judgment of the presiding officer to determine the most reasonable approach. The following steps are generally recommended:

- a. The referring faculty member or the individual reporting an alleged violation, and then the student, will briefly summarize the matter before the honor board, including any relevant information or arguments. The faculty member may recommend a sanction.
- b. Witnesses will be called who have knowledge of the incident and can offer documents or other materials bearing on the case.
- c. Members of the Hearing Board may request additional material or the appearance of other persons, as needed.
- d. The referring faculty member or individual reporting the allegation and the student may make brief closing statements.
- e. The Hearing Board will meet privately to discuss the case and determine whether a violation has taken place based on a preponderance of the evidence.
- f. If the student is found in violation, the Hearing Board will determine an appropriate sanction. When determining the sanction, the Hearing Board will be informed of any other violations of academic integrity on the part of the student.
- g. The Hearing Board chair will provide the referring faculty member or reporting individual, the student and the Assistant Provost for Academic Services with a written report of the facts found, identifying the parts of the policy that have been violated and describing the sanction, if any, to be imposed.

The Hearing Board chair will ensure that the following rules and points of order are observed:

- a. The student may be accompanied by a person of his or her choosing for emotional support only, provided that the support person is not a parent, an attorney, or a party to the case. This person will not actively participate in the hearing process in any way.
- b. Hearings will be tape recorded for the purposes of the Hearing Board's deliberations and/or any Student Appellate Board action.
- c. Presence at a hearing lies within the judgment of the Hearing Board chair. A hearing requires a deliberative and candid atmosphere, free from distraction. Accordingly, it is not open to the public or other "interested" persons. The Hearing Board chair may cause to be removed from the hearing any person, including the student, who disrupts or impedes the investigation, or who fails to adhere to the rulings of the chair. The Hearing Board chair will direct that persons, other than the student, who are to be called upon to provide information be excluded from the hearing except for that purpose. The members of the Hearing Board may conduct private deliberations at such times and places as they deem proper.
- d. Failure to appear before a Hearing Board will not preclude the Hearing Board from hearing evidence and determining outcomes.
- e. It is the responsibility of the person desiring the presence of a witness before a Hearing Board to ensure that the witness appears. Because experience has demonstrated that the actual appearance of an individual is of greater value than a written statement, the latter is discouraged and should not be used unless the individual cannot reasonably be expected to appear. Any written statement must be dated, signed by the person making it, and witnessed by a University employee. The work of a Hearing Board will not, as a general practice, be delayed due to the unavailability of a witness.

- f. A hearing is not a trial. The Hearing Board will consider all relevant, probative, and credible evidence. The Hearing Board chair will determine what evidence will be considered.

If the Honor Council Faculty Adviser determines that a Hearing Board cannot be convened within a reasonable period of time after an allegation is made, two students and one faculty member will be appointed as an ad hoc Hearing Board. Members of ad hoc Hearing Boards shall be current or former members of the Honor Council. A non-voting Hearing Board chair will also be appointed.

### **Hearing Board Outcomes**

If the Hearing Board determines that the allegations of academic dishonesty are unfounded, then no record of the allegation and/or hearing appears on the student's record and no sanctions are imposed.

### **Sanctions**

Sanctions available to faculty members for informal resolution include:

- Warning (The violation is kept on file and no other sanction is imposed.)
- A reduction in grade for the assignment and/or an additional reduction in the grade for the course.
- A failing grade for the assignment and/or an additional reduction in the grade for the course.
- A failing grade in the course (XF).

Sanctions available to the Honor Council include:

- Formal warning (The violation is kept on file and no other sanction is imposed.)
- A reduction in grade for the assignment and/or an additional reduction in the grade for the course.
- A failing grade for the assignment and/or an additional reduction in the grade for the course.
- A failing grade in the course (XF).
- Community work assignment.
- Removal of the privilege of representing the university in extracurricular activities including athletics, as well as the privilege of running for or holding office in any student organization that is allowed to use university facilities or receives university funds.
- Suspension from the university for one to two semesters, excluding summer terms. Students suspended for academic dishonesty must apply for readmission according to the Board of Academic Standards guidelines. However, students suspended for academic dishonesty cannot transfer into Wittenberg any credits earned during the suspension. Readmission applications by students suspended for academic dishonesty must be approved by the Honor Council.
- Dismissal from the university.

## **The grade of XF**

An XF will be recorded on the student's transcript with the notation "failure due to academic dishonesty." The grade of XF shall be treated in the same way as an F for the purposes of grade point average, course repeatability, and the determination of academic standing.

A student may file a written petition to the Honor Council to have the grade of XF removed and replaced with the grade of F. The decision to remove the grade of XF and replace it with a grade of F requires a majority of a quorum of the council (quorum for the Honor Council is five students and three faculty members), provided that:

- a. at the time the petition is received, at least twelve months shall have elapsed since the grade of XF was imposed; and,
- b. at the time the petition is received, the student shall have successfully completed a non-credit seminar on academic integrity; or, for the person no longer enrolled at the university, an equivalent educational activity to be determined by the Honor Council; and,
- c. the Assistant Provost for Academic Services certifies that no reports have been received indicating that the student has been found responsible for any other act of academic dishonesty at the university, or at another institution.

Prior to deciding a petition, the Honor Council will review the record of the case and consult with the Honor Council adviser and, whenever possible, the faculty member who originally reported the violation. Both the Honor Council adviser and the faculty member serve in an advisory capacity only. If the Honor Council denies the petition, the student cannot submit another petition for four years, unless the Honor Council specifies an earlier date.

## **Subsequent Allegations of Academic Dishonesty**

In the event of a subsequent allegation of academic dishonesty, the case is automatically referred to the Honor Council and reviewed by an Honor Council Hearing Board. Ordinarily, a second substantiated allegation of academic dishonesty results in either suspension for one or two full semesters, excluding summer terms, or permanent dismissal from the university. In the event of extraordinary or extenuating circumstances, the Hearing Board has the right to assign a lesser sanction.

Unless otherwise designated by the Honor Council, suspension for academic dishonesty will take place immediately. In the case of an appeal, the suspension is held in abeyance until the appeal process is completed.

## **Appeals**

A student is allowed one opportunity to appeal a decision of the Hearing Board to the Student Appellate Board. Appeals must be received by the Student Appellate Board at the Student Development Office within five (5) business days of receipt of the Honor Council Hearing Board decision. Appeals must be based on one or more of the following three conditions:

1. New and significant evidence is presented which may further clarify and support the defense of the student, at which point the case will be referred back to the original Hearing Board for reconsideration;
2. There is clear reason to believe that the sanction is not consistent with the seriousness of the violation. In cases where the Student Appellate Board determines that this is the case, it may issue a different sanction.
3. There is substantial, credible evidence that the initial hearing was not fair and impartial, or that the established process was not followed, in which case the Student Appellate Board will request that a new Hearing Board be selected from the Honor Council to rehear the case.

The Honor Council will review the policies and procedures described in the Code of Academic Integrity at least bi-annually and will recommend any revisions to students and faculty.

### **Campus Security**

Wittenberg University is committed to providing a safe living and learning environment for its students, faculty, staff, and visitors. As part of the university's overall effort to provide important information about personal safety to the campus community, a campus security report is published annually. This publication is prepared in compliance with the requirements of the Federal Crime Awareness and Campus Security Act of 1990. The report is available electronically via the Police and Security link listed under the Services/Facilities heading on either the Fac/Staff or Current Students link on the university's homepage. You may also request a paper copy of this report from the Campus Police and Security Department.

The following policy statements and information are included:

- Current campus policies regarding procedures and facilities for reporting crimes and emergencies and the university's response to such reports;
- Current law-enforcement policies, including the authority of security personnel and policies encouraging the reporting of crimes;
- A description of the type and frequency of programs to inform the campus community about security procedures;
- A description of crime prevention programs;
- Statistics on the reports of certain crimes and arrests;
- The policy for monitoring and recording off-campus crime through local police agencies;
- The university's policy on the possession, use, and sale of alcohol, as well as the policy regarding illegal drugs;
- A description of drug or alcohol abuse education programs; and
- The policy regarding programs to prevent sex offenses and procedures to follow when a sex offense occurs.

## Career Planning, Graduate School Placement & Job Placement

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For most students, a major goal of undergraduate education is preparation for launching a successful career or going on to medical, law, or graduate school. Here at Wittenberg we recognize the importance of finding that first professional position or of gaining admission to the graduate school of your choice, so we provide an extensive array of resources and support services to help you succeed.

### Career Planning

Planning a career is a lifelong journey. Studies by career planning experts predict that those in the generation now in college will experience an average of six career changes in their adult lives. The jobs we hold often define a large part of who we are, making wise career choices among the most important decisions of our lives.

Effective career planning melds personal interests, abilities and values with solid information about the work world. It requires making choices from an amazing array of alternatives, based on the best information available. This is best done after some “reality-testing” of tentative career choices via internships and other experiences. The Wittenberg student has the advantage of a career center both sophisticated in the use of technology and small enough to offer personalized career consulting and networking support.

### Develop a Four-Year Plan

During their first year students hear about Wittenberg's *Power of Experience* program. In a one-hour presentation, the Off-Campus Programs' staff introduces new students to the concept of building a Power Portfolio to maximize opportunities for personal and career growth during their four years at Wittenberg. A variety of carefully selected experiences will maximize this growth as well as create potential for a successful job search and graduate school admission:

- college activities and leadership roles
- internships and research projects
- study abroad
- part-time/summer/holiday jobs
- community service/volunteer work.

Students are encouraged to make appointments with the Career Center staff, or a faculty adviser, who will assist them in developing a sense of career direction and determining the fields of study and experiences that might best prepare them for their target career fields. Personality, interest, and skill testing is available to assist students in making choices, including DISCOVER – a career guidance program that is free to all Wittenberg students and easily accessible via the Career Center's web site.

## **Enhance Understanding of Career Options**

The Career Center web site and the Patmos Career Library feature information about local and national internship sites, career fields, graduate schools, job search tools, starting salary averages, and employers who typically recruit on college campuses. A popular resource are the Witt Major Sheets, which are organized by academic major and list the job titles of graduates one, five, and ten years after they leave Wittenberg .

Although information about many career fields is just a click away, a deeper understanding of one's options is generally best developed through discussions with people about their work and periodic reflection of one's experiences that have tested skills, provided exposure to interest areas, or heightened awareness about work place values. Students can make connections via the Tiger Career Advisers Network (TCAN), which is an online database of alumni, parents, and friends of Wittenberg who have volunteered to field questions about their careers from students. Additionally, alumni also return to campus throughout the year to speak at Alumni Careers Day and other programs geared toward educating students about career options or assisting them with their internship or job searches.

Career consulting is available through all four years at Wittenberg , to assist students with the reflection process and to help them reach or revise the goals established their first year when completing the Power Portfolio.

## **Gain Experience and Learn How to Market Yourself**

By making strategic choices of campus and summer employment, internships, volunteer work, and research and independent study projects, students gain the powerful experiences that give them that all-important edge in the job market or in graduate school acceptance. As part of the Power Portfolio experience, the Career Center directs students to campus, community, state and other resources that help them identify the experiences that can set them apart from the crowd of job seekers or grad school applicants.

How does one capture his/her key experiences to effectively promote him/herself on a resumé and during an interview for employment or an internship? These are challenges that many students face. The Career Center assists students by offering the following workshops each semester: *Preparing Resumés: Write Until You Get it Right* and *Interview Success Factors: Managing First Impressions and Closing the Sale*. Students can then sharpen their self-promotions skills by taking advantage of our resumé critique and mock interview services. Videotaping is an option during mock interviews.

## **Identify First Job Opportunities and Convert Them into Careers**

The Career Center offers effective job search training through small group workshops, videotapes, and on-line resources to prepare students for the most current trends in assertive job search skills. This training is supported by:

- a strong on-campus interviewing program

- a computerized resumé referral system
- eCampusRecruiter – an online service for accessing job and internship postings
- alumni contacts who, through the Tiger Career Advisors Network, who assist students in accessing job leads that may never be advertised
- e-mail updates of emerging job and graduate school opportunities

### **Graduate School Placement**

For students who plan to pursue a master's or doctorate degree, Wittenberg is an ideal place to prepare for continued studies. Strong programs in the arts and sciences, skill-based general education requirements, and research experiences make the Wittenberg graduate attractive to top graduate and professional programs. In addition to graduate school advisers in each academic department, students can discuss graduate school plans with the Career Center staff and investigate options using the center's library and web resources. Additionally, the Career Center hosts a graduate school planning program to assist students in understanding the application process, test preparation, and fellowship and assistantship opportunities. The Center also provides individual critiques of graduate school essays and offers a credentials service to keep reference letters on file – this is especially helpful for those students who plan on applying to graduate programs after graduation.

### **Medical and Law School Placement**

Wittenberg faculty offer individual advising to assist students in making the transition to professional school, and they bring special knowledge, medical and law school contacts, and a detailed understanding of admission requirements to help you in your search for the right school. With their help, you can begin planning an appropriate course of study - right from your first year of college.

### **Pre-Theology**

The student interested in a career in ministry, whether ordained or lay ministry as a youth worker, social worker, diaconal minister, or other vocation, can benefit from a pre-theological course of studies. Any major can be appropriate, with supporting classes in religion, philosophy, history, languages, English, and other disciplines. Advising for students interested in pre-theological studies at Wittenberg is provided principally by the University's Pastors.

### ***A word about our philosophy...***

The Career Center strives to make available to all students, regardless of major, the widest possible range of professional career-related services. From career consulting to job search assistance, seeking out and using our services is the responsibility of each student. Our role is one of coaching and teaching – beginning in a student's first year – those skills necessary to make the many career transitions a student will face in a lifetime.

