

## **Roanoke College**

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Officers; Trustees; Trustees Emeriti; President Emeriti

### **Faculty**

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## **ACADEMIC CATALOG 2023-2024**

### **The Dean wants you to read this Catalog—here's why:**

This catalog is an academic guidebook for our students at Roanoke College, as well as a source of information for prospective students and others interested in the College. You can find all sorts of important information inside! The catalog describes the requirements for all academic programs and for graduation; provides information about financial aid and scholarships; explains regulations and faculty policies that govern academic life; and acquaints students with the Roanoke College faculty and staff.

I encourage every student to become familiar with the Catalog. If you need further explanation of any part of it, faculty advisors and staff members in the Office of the Registrar, the Dean's Office, and the Center for Learning and Teaching can answer your questions, and would love to speak with you. Advisors are here to assist you, but it is ultimately each student's responsibility to register correctly, to complete the necessary course work for graduation and to abide by the academic regulations of the College, as set forth by the faculty. This catalog can help you to accomplish all of those important things.

Kathy J. Wolfe, PH.D

Vice President for Academic Affairs and Shirley C. and Donald E. Morel Dean of the College

### **Catalog Policy**

The Academic Catalog is produced by the Registrar's Office in cooperation with various other offices on campus. The contents of this catalog represent the most current information available at the time of publication. During the period of time covered by this catalog, it is reasonable to expect changes to be made without prior notice. Thus, the provisions of this catalog are not to be regarded as an irrevocable contract between the College and the student. We continually review the curriculum, academic policies, and procedure with an eye to improvement, and the College reserves the right to make appropriate changes in its courses, programs, grading system, standards of progress and retention, honors, awards, and fees. In general, students are to be governed by the Catalog that is current at the time they begin their studies at Roanoke College. However, a student has the option of declaring to be under the jurisdiction of a subsequent catalog except in cases where core requirements have been changed and the College has specified who is eligible to declare the new curriculum. Should the faculty determine that a modification in course work for the major or teacher licensure program in education is necessary in order for students to complete a current course of study; the department reserves the right to modify degree or licensure requirements for students who have not yet formally declared a major or applied for teacher licensure.

Students transferring from a Virginia community college may choose to declare any Catalog in effect within the 24-month period immediately prior to the term they first enrolled, except in cases where core requirements have been changed and the College has specified who is eligible to declare the modified curriculum.

**Affiliation:** The College maintains its partnership in church-related education with the Evangelical Lutheran Church in America through the Virginia Synod, The Metropolitan Washington, DC Synod, and the West Virginia-Western Maryland Synod.

**Statement of nondiscrimination:** Roanoke College does not discriminate against students, employees, or applicants on the basis of race, color, gender, creed, religion, age, sexual orientation, marital status, national or ethnic origin, disability, or veteran status.

# ROANOKE COLLEGE

## Statement of Purpose

### Vision

Roanoke College is committed to being a leading national liberal arts college, a model of experiential learning and a community committed to open discourse and civil debate as ways of learning and as preparation for service in the world.

### Mission

Roanoke College develops students as whole persons and prepares them for responsible lives of learning, service, and leadership by promoting their intellectual, ethical, spiritual and personal growth.

### Purpose

Roanoke College pursues its mission through an innovative curriculum that combines a core program in the liberal arts, major fields of study in the natural sciences, the social sciences, and the humanities and fine arts, along with career-oriented, specialized programs of study. Founded by Lutherans in 1842, Roanoke College welcomes and reflects a variety of religious traditions. The College honors its Christian heritage and its partnership with the Lutheran church by nurturing a dialogue between faith and reason. In keeping with its history and mission, the College strives to be a diverse community, nationally and internationally.

Central to achieving the purposes of the College is a strong commitment to liberal education and its vision of human freedom leading to service within the human community. The College's learning goals, therefore, focus upon developing both a student's confident sense of freedom in the world and a sense of purpose in using that freedom. Through these goals the College strives to produce resourceful, informed, and responsible citizens prepared for productive careers and for leadership in the community.

## Freedom With Purpose:

### *A Liberal Arts Education at Roanoke College*

#### *Philosophy*

Education in the Liberal Arts is education for liberation. The term "liberal arts" derives from the Latin *artes liberales* and means, literally, the subjects of study appropriate to free persons. And the verb "to educate" means, in its Latin root, "to lead." A liberal arts education, then, is one that leads out from small worlds into larger ones.

It leads us out from small, safe worlds into larger, more interesting ones by training in us dissatisfaction with partial knowledge, with sloganeering, and with fixed ideologies. It instills in us instead an appreciation for the true complexity of things and a lifelong commitment to learning. A mind so trained respects facts, employs apt methods, and engages in creative problem solving. It examines alternatives; it does not fear tension or paradox. It welcomes the stubborn "misfit" fact that cracks open a too-small view and releases us into a wider play of thought. And it encounters this liberating openness in the vision of artists; in the venturesome thought of philosophers, theologians, and mathematicians; in the observation and experimentation of scientists; in the insights of social scientists; and in the experience of living in community.

A liberal arts education at a small, residential college frees us from isolation within ourselves into a community of learners and sharers, a community of discovery and collaboration, in which we can grow as individuals in constructive engagement with others.

A liberal arts education frees us from reliance upon received opinion into an achieved personal authority by training the skills of critical thought, sound research, and informed and reasoned debate. At Roanoke College this freedom grows out of a tradition of debating societies within a community of open discourse.

A liberal arts education frees us from entrapment within the conventions of our present place and time into a wider perspective that comprehends our own legacies, the breadth of human history, and the variety of human cultures. To support this work, Roanoke College commits itself to the work of building a diverse and tolerant college community.

A liberal arts education frees us from superficiality and distraction into the satisfactions of knowledge in depth, in which depth of learning leads to useful understanding—and to pleasure, wonder, and awe. At the same time, a liberal education frees us from mere specialization into a wider dialogue, in which depth of knowledge is shared and debated to clarify distinctions, to discover patterns, and to integrate human knowledge into an ever larger and more adequate view.

A liberal arts education engages ethics and questions of ultimate meaning. It does not offer pat moral answers. Instead, it provides the basis of all moral behavior—it helps us to imagine the reality of other lives. In matters of ethical living, it does not limit itself to the human, social world, but includes thoughtful consideration of our place within the natural world. At Roanoke College these inquiries are informed, in part, by a tradition of Lutheran education that encourages a dialogue between faith and learning.

Education in the liberal arts frees us from purposelessness into productive careers and lives of service, in which our work to discover what is good, true, and beautiful leads on to work for good in the world.

The effects of a liberal arts education—an education for liberation—are a love of learning, an openness within the vastness of what we do not know, and a desire to use what we do know in ethical living, engaged citizenship, and service for the general good. The broad aim of such an education, therefore, is to produce resourceful, informed, and responsible citizens.

## **Principles**

At Roanoke College a liberal arts education prepares students for lives of freedom with purpose. The college aims to produce resourceful, informed, and responsible citizens prepared for productive careers and for leadership in community, with an understanding of community appropriate to American diversity and to the increasingly global experience of the 21st century.

Traditionally, the liberal arts are the skills of freedom. A liberal arts education at Roanoke College aims to produce resourceful citizens by developing these skills and habits of mind, including:

- the ability to read, listen, and observe carefully
- the ability to access information from disparate sources, to assess it appropriately, and to develop information into useful knowledge
- the ability to think critically, analytically, and creatively; to apply apt methods; to reason with rigor; and to use effective problem-solving skills
- the ability to use writing as a tool of thought and to communicate effectively in a variety of written and oral forms
- the ability to construct, understand, and evaluate arguments that use quantitative reasoning
- the ability to understand scientific discovery and to appraise it wisely
- the ability to make judicious use of new technologies
- the ability to work independently and collaboratively and to participate in experiential learning

Knowledge is essential to freedom. A liberal arts education at Roanoke College aims to produce citizens informed by:

- the cardinal achievements of human imagination as expressed in the arts and humanities, in the sciences, and in the social sciences
- depth of knowledge in at least one academic field of study, complemented by a breadth of experience across the traditional divisions of knowledge sufficient to enable integrative learning and thinking
- knowledge of the histories, values, and achievements of both western and non-western cultures in depth sufficient for the appreciation of disparate values and perspectives; this knowledge includes the cultural insight gained through language study

- knowledge of the values and histories that gave rise to liberal democracy in the United States and an understanding of contemporary issues from a variety of perspectives

Freedom, according to Martin Luther, includes both “freedom from” varieties of oppression and “freedom for” service in community. A liberal arts education at Roanoke College aims to produce responsible citizens by cultivating in its students:

- a commitment to academic integrity and intellectual freedom
- a lifelong commitment to learning and to using that learning in active engagement with others
- a sense of responsibility in which individual identity is honored within a diverse community characterized by mutual understanding and respect
- a commitment to engage in contemplation and reflection as a prelude to action, to make principled and ethical decisions, and to participate in deliberative public discourse
- a commitment to health in its largest sense: the physical and emotional well-being of self within a community that balances intellectual, ethical, spiritual, and personal growth
- a willingness to understand and respond to the needs and challenges of our time, both as individuals and as members of wide, inclusive communities
- a desire to contribute to the common good at Roanoke College, in the Roanoke Valley, and beyond.

### **The College: Its History, Accreditations and Affiliations**

Because David F. Bittle and Christopher C. Baughman, both Lutheran pastors, recognized the need to educate the young men of the rural frontier, they founded in 1842 the institution which was to become Roanoke College. Located near Staunton, Virginia, and named the Virginia Institute, it was chartered in 1845 and renamed the Virginia Collegiate Institute.

Realizing the advantage of having the school at a center of activity, the two men moved it to Salem in 1847. In 1853, the Virginia Legislature granted the charter that raised the school to college status, and the trustees changed its name to Roanoke College.

Today Roanoke is the center of learning for its 2000 students, a place where tradition and educational innovation meet. Excellence and creativity are the criteria by which Roanoke evaluates its academic programs. Careers of alumni and the respected standing of the College provide a means for measuring the quality of the education offered by Roanoke College. Every area of interest and specialization is represented among the College’s alumni: the arts, athletics, business, education, government, industry, journalism, law, medicine, the military, public service and religion.

### **Accreditation and Affiliations**

Roanoke College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award master's and baccalaureate degrees. Questions about the accreditation of Roanoke College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC’s website ([www.sacscoc.org](http://www.sacscoc.org)).

We provide the Commission’s contact information to (1) to learn about the accreditation status of the institution, (2) to file a third-party comment at the time of the institution’s decennial review, or (3) to file a complaint against the institution for alleged non-compliance with a standard or requirement. Note that normal inquiries about the institution, such as admission requirements, financial aid, educational programs, etc., should be addressed directly to Roanoke College and not to the Commission’s office.

Roanoke is a member of the College Entrance Examination Board, the National Commission on Accreditation, the Association of American Colleges, and the Association of Virginia Colleges. It is on the list of approved

colleges of the American Chemical Society and the American Association of University Women. The Business Administration program is accredited by the Accreditation Council for Business Schools & Programs. The Education Program is approved by the Virginia Department of Education and accredited by the Council for the Accreditation of Educator Preparation (CAEP).

### **Lutheran Affiliation (ELCA)**

Roanoke is proud of its distinguished heritage as America's second oldest Lutheran college. As an institution affiliated with the Evangelical Lutheran Church in America (ELCA), Roanoke College believes that a sound religious program must be an integral part of the total college life.

Never sectarian in its outlook, the College admits students of any race, color, national and ethnic origin, and sex, to all rights, privileges, programs, and activities generally accorded or made available to students at the College. It does not discriminate against students, employees, or applicants on the basis of race, color, gender, creed, religion, age, sexual orientation, marital status, national or ethnic origin, disability, veteran status, or political affiliation in administering its educational policies, admission policies, scholarship and loan programs, and athletic and other school-administered programs.

### **Roanoke College Substantive Change Policy**

As an accredited institution, Roanoke College is required to notify the Southern Association of Colleges and Schools' Commission on Colleges (SACSCOC) of any significant modification or expansion of the nature and scope of our operations. Member institutions, like us, are required to notify SACSCOC of changes in accordance with the substantive change policy and, when required, seek approval prior to the initiation of changes.

SACSCOC Defines a Substantive Change as:

- ☐ Any change in the established mission or objectives of the institution
- ☐ Any change in legal status, form of control, or ownership of the institution
- ☐ The addition of courses or programs that represent a significant departure, either in content or method of delivery, from those that were offered when the institution was last evaluated
- ☐ The addition of courses or programs of study at a degree or credential level different from that which is included in the institution's current accreditation or reaffirmation
- ☐ A change from clock hours to credit hours
- ☐ A substantial increase in the number of clock or credit hours awarded for successful completion of a program
- ☐ The establishment of an additional location geographically apart from the main campus at which the institution offers at least 50% of an educational program.
- ☐ The establishment of a branch campus
- ☐ Closing a program, off-campus site, branch campus or institution
- ☐ Entering into a collaborative academic arrangement that includes only the initiation of a dual or joint academic program with another institution
- ☐ Acquiring another institution or a program or location of another institution
- ☐ Adding a permanent location at a site where the institution is conducting a teach-out program for a closed institution
- ☐ Entering into a contract by which an entity not eligible for Title IV funding offers 25% or more of one or more of the accredited institution's programs

### **Procedures**

All administrative departments, academic programs, and governance committees are required to notify the Dean's Office of any possible or anticipated substantive changes in a timely manner. Some substantive changes cannot be implemented without prior approval and require additional documentation or a prospectus six months prior to implementing the change. The Dean's Office will review and report any substantive changes to SACSCOC through the College's SACSCOC Liaison. It is the responsibility and commitment of Roanoke College through its SACSCOC Liaison to report all substantive changes based on the commission's policy and follow all procedures and timelines as outlined in the commission's policy statement.

In addition, it is the responsibility of the SACSCOC Liaison to inform and periodically remind administrative departments, academic program, and governance committee chairs of the substantive change policy with updates when appropriate.

#### Publishing the College's Substantive Change Policy

This policy will be posted electronically along with other similar policies and will be reviewed annually for updates.

#### Documenting Substantive Change

All substantive change activity will be documented by the SACSCOC Liaison through a data set maintained by the SACSCOC Liaison.

#### Policy Approval

This policy was reviewed and approved by the Roanoke College Cabinet on February 24, 2020.

### **The College Environment**

The sense of community at the College provides a setting in which students are readily recognized for their accomplishments and are encouraged to realize their fullest potential. Students are also able to enjoy the security and the support that can be engendered only by personal relationships. Classes, clubs, societies, sports, and performing arts groups are small enough to assure participation. The College furnishes an opportunity for a fuller self-awareness and for achieving a responsible knowledge of society.

The majority of students – after Virginia residents – name Maryland, Massachusetts, New York, New Jersey, or Pennsylvania as home, with other points in New England and the South being well represented. While most of our students come from about 40 states, the presence of international students on the campus helps diversify our student body. Most students find friends from cultures both similar to and divergent from their own.

Located in the Roanoke Valley of southwest Virginia, below the scenic Blue Ridge Mountains, the area is home to approximately 300,000 people. Roanoke College resides in the city of Salem, which has a population of about 25,000. The College is located off Interstate 81 and is only a few minutes from the Roanoke-Blacksburg Regional Airport which has service to many major cities.

The Roanoke Valley serves as the region's cultural, economic and entertainment center, and features opportunities such as the Taubman Museum of Art, Center in the Square, the Berglund Center, the Jefferson Center, and others. The nearby Blue Ridge Mountains offer many opportunities to hike, bike, ski and canoe.

The campus is a blend of Collegiate Gothic and Georgian architecture. The Administration Building (which houses the offices for the President and the Vice-President/Dean of the College, as well as the Office of the Registrar) was constructed in 1847; together with Miller Hall, Trout Hall, and Bittle Hall that flank it, the Administration Building is registered as a Virginia and National Historic Landmark.

The Fintel Library adds more than 3,000 new items to the collection annually. Besides the sheer size of the collection, Fintel Library is proud to offer the latest in journals, books, and multi-media materials. Among the most popular items are the Library's databases and streaming media collections, which are available 24/7 from anywhere there is an Internet connection, and its laptop loan program. In addition, the Library is also a selective depository for the United States Government Documents.

### **Religion and College Life**

As a college affiliated with the Evangelical Lutheran Church in America, Roanoke stands for a steady and consistent cultivation of religious life and strives to develop in its students an understanding of a person's ethical and spiritual responsibilities in society.

The religious life program is under the direction of the Dean of the Chapel, who is an ordained Lutheran pastor. In addition, Jewish, Baptist and Roman Catholic campus ministers help provide a variety of religious activities.

The Center for Spiritual Life and Campus Ministry is a gathering place for student fellowship, informal conversation, and dialogue groups over moral and theological issues that affect both the students and the society in which they live.



The opportunities for worship on campus include an informal service of Holy Communion on Wednesday evenings in Antrim Chapel and special services on festivals and holy days. On Sunday, students are encouraged to worship in the local congregation of their choice. Roman Catholic Mass is offered every Sunday in Antrim Chapel.

## **Faculty**

Through Roanoke's faculty of approximately 160 full-time members, students can discover and connect multiple areas of study and find experiential learning and career-related opportunities. Over 95 percent of our tenure-track faculty hold the earned doctorate or the highest degree in their area of expertise. Faculty members are active scholars who regularly publish and consult in their academic specialties, and they often involve students in undergraduate research collaborations.

Close relationships between the faculty and students are possible. An advisor is assigned to newly enrolled freshmen or transfer students during the summer pre-registration process. After declaring a major students are assigned to faculty in their department.

## **ADMISSIONS**

Because of the College's diverse and challenging liberal arts and sciences curriculum, the prospective student must have substantial preparation in a broad range of academic subjects. Students graduating from an accredited secondary school with a strong college preparatory curriculum are best prepared for the academics at Roanoke. It is highly recommended that, in preparation for Roanoke, students take a minimum of 18 academic courses, including four in English, two in social studies, three-four in a foreign language, and two in lab sciences. Three courses in mathematics, including two in algebra (Algebra I and Algebra II) and one in geometry, are required.

Freshmen usually begin their degree programs with the fall term in August, but students are also considered for admission in January and June. The deadline for admission for the fall term is March 15 for freshmen. However, students are urged to submit their applications during the fall of their senior year. Freshman applications received after March 15 will be considered as space permits. Students will be notified of a decision beginning October 1 and no later than April 1.

Transfer students are also considered for admission in August, January and June. Applications are reviewed on a rolling basis, and applicants are encouraged to submit their application materials early.

Students applying for the 4+1 MBA program are encouraged to apply in the fall of their senior year.

## **Freshman Students**

In keeping with its mission to educate the whole person, Roanoke adheres to a holistic review of applications. Candidates will be considered according to their academic potential as exhibited by their high school course work, standardized test scores, class rank, and other relevant academic information. Standardized test scores are optional for freshman candidates. Students who have taken standardized tests such as the Scholastic Aptitude test (SAT) or the American College Testing Program (ACT) may submit scores as part of their application. Students who choose not to submit test scores will be most successful when they have a strong academic record and recommendations. Students who are homeschooled must submit either SAT or ACT scores. Roanoke College is to receive a copy of the results directly from the testing service. Information on both examinations is available at secondary schools or from Roanoke College. The code numbers for the College are 5571 for the SAT and 4392 for the ACT. Roanoke also considers demonstrated interest as a factor in our decision-making process.

[www.roanoke.edu/application-checklist](http://www.roanoke.edu/application-checklist)

An application for admission is available at [www.roanoke.edu/apply](http://www.roanoke.edu/apply). Information about the College and admissions process can be obtained by writing to the Admissions Office, by calling the Admissions Office (540-375-2270), by e-mail ([admissions@roanoke.edu](mailto:admissions@roanoke.edu)), or online ([www.roanoke.edu](http://www.roanoke.edu)). Inquiries pertaining to admissions should be directed to the Admissions Office. Students may apply using the College application, found on the website, or the Common Application.

A visit to the College is strongly recommended. Visitors are able to talk with a member of the admissions staff, tour the campus with a student guide, attend classes, and dine in the Commons (student dining hall) as guests of the College. The Admissions Office is open on weekdays from 8:00 a.m. to 4:30 p.m. for individual interviews and tours. Group presentations and tours are available on most Saturday mornings (September–April) and on selected weekdays. Please call the Admissions Office (540-375-2270) or see [www.roanoke.edu/visit](http://www.roanoke.edu/visit) for additional campus visit information and/or to schedule an interview and tour. Students who anticipate a visit to the College are encouraged to schedule an appointment in advance.

## **Freshman Application Process**

The Admissions Committee places primary emphasis on the applicant's secondary school record. Subjects taken, grades, SAT or ACT scores (when submitted) and class rank are among the more important factors taken into consideration. Nearly eighty percent of students rank in the upper half of their graduating class. The committee also reviews any additional information submitted by either the applicant or the school.

For freshman applicants who have pursued a non-traditional secondary education program, the General Equivalency Diploma, granted by the appropriate state agency, is recognized. A transcript of the work that was completed in high school is still required; a curriculum similar to that previously described is recommended.

Secondary school students must submit the following when applying for admission: (1) a completed application using the College application or the Common Application; (2) an official high school transcript. Students may also submit test score, recommendations and an essay for further consideration. The application fee is waived for online applications. The school record should be submitted directly to the Admissions Office by the applicant's counselor or principal.

Students who have earned college credit while enrolled in high school (dual enrollment) must submit an official transcript of courses directly from the college. They will be evaluated for college credit. Credits can be earned for core requirements, major courses, and/or electives.

Roanoke College has no limitation on the number or proportion of qualified persons with disabilities who may be admitted. Applicants complete the usual application procedure. Upon acceptance, applicants with disabilities have the option of requesting accommodations through Accessible Education Services. If special tests are available and appropriate, applicants are encouraged to use them.

## **Transfer Students**

Transfer applicants must submit the following application materials when applying for admission: (1) a completed application; (2) official transcripts showing all college-level course work; secondary school records and (3) the Admission with Advanced Standing form completed by the last college attended. Only completed applications are considered for admissions.

To be considered for admission, transfer applicant must be in good standing with the most recent or current colleges. Transfer students may submit transcripts from other institutions of higher education attended and must be in good standing with those schools; transfer student may not have been expelled from any previous or current college. To be considered for admission, student must have a minimum cumulative grade point average of 2.2 (on a 4.0 scale) in academically transferable courses as determined by the Office of the Registrar. No college credit will be awarded for course work taken during a period of academic or social suspension. Official transcripts of all course work are required, but unofficial transcripts may be used during the application process. Credit will be granted only for academic courses similar to those offered at Roanoke and completed at a regionally accredited college or university with a grade of "C–" or better. Foreign university credentials must be evaluated, course by course, through an approved foreign credentials evaluation service.

A minimum of 17 academic units (excluding credit earned for physical education) must be earned at Roanoke College toward the degree. Students with fewer than eight transferable academic units will be evaluated on the basis of their high school record in addition to their college work.

In general, students are to be governed by the Catalog which is current at the time they begin their studies at Roanoke College. However, a student has the option of declaring to be under the jurisdiction of a subsequent catalog except in cases where core requirements have been changed and the College has stipulated those eligible to declare the new curriculum. Should the faculty determine that a modification in course work for the major is necessary in order for students to complete a current course of study in a major; the department reserves the right to modify degree requirements for students who have not yet formally declared their major.

Students transferring from a Virginia community college may elect to declare any catalog in effect within the twenty-four-month period immediately preceding the term they first enroll except in cases where core requirements have been changed and the College has stipulated who is eligible to declare the new curriculum.

## **International Students**

Each year, our campus is enriched by the presence of international students. Students from other countries who wish to enroll at Roanoke College must submit the application form, secondary school transcript with an official English translation, examination results and either the Roanoke College International Student Financial Aid Application or Certificate of Finances. Official transcripts and records should be sent directly to Roanoke from all high/secondary schools and universities attended. The transcripts should indicate all of the completed courses, the final grades received and any certificates or diplomas awarded.

International students whose first language is not English must demonstrate English proficiency by submitting ONE of the following options: 1. TOEFL (minimum score is 68 iBT and recommended score is 80 iBT) 2. IELTS (minimum score is 6.0) 3. SAT (evidenced based writing section is recommended to be above 500) 4. Duolingo (minimum score is 105) 5. Other English language exams considered include Cambridge English Exams, Pearson Test of English (PTE), iTEP, APIEL, and the Common European Framework (CEFR). For international transfer students whose first language is not English, strong grades in U.S. college and university writing classes may be submitted in lieu of the tests listed above.

Successful results on national examinations such as Cambridge “A” levels, French Baccalaureate, or German Abitur may lead to advanced placement and credit toward the degree. These scores should be mailed or emailed with the application. Foreign university credentials must be evaluated, course by course, through an approved foreign credentials evaluation service such as World Education Services (WES) or SpanTran.

International applicants are encouraged to submit either a Certificate of Finances along with a financial statement showing funds available for their education (if no financial aid is needed) or the Roanoke College International Student Financial Aid Application (if seeking financial aid) along with their admission application.

In order to be considered for academic scholarships, international students must first apply and be accepted to the College. Merit scholarships are based upon demonstrated academic achievement. They are also invited to apply to the Honors Program and the Fellows Program. International students may also work on-campus for up to 20 hours per week during the school year.

International applicants needing an F-1 visa, will be required to fill out an I-20 application, and submit a bank-certified statement or other financial documentation demonstrating that they have the resources to fund their education and a copy of their passport. An I-20 form to obtain their F-1 student visa will be issued after their tuition deposit and this documentation is received.

## **Students with Disabilities**

Prospective students with disabilities are encouraged to visit Roanoke College. A personal visit enables the student and College representatives to meet and determine how the College might best serve the student’s particular physical and learning needs.

After being accepted to Roanoke College, students with diagnosed disabilities must send a copy of medical or psycho-educational testing results to the Assistant Director of Academic Services for Accessible Education in the Goode-Pasfield Center for Learning & Teaching in order to be considered for accommodations. IEP or 504 plans will not be considered sufficient documentation unless accompanied by a full evaluation completed within three

years prior to submission to the College. Roanoke College does not offer a special program for students with learning disabilities. Certain accommodations may be permitted based on the specific disability and the recommendations of the consulting professional. Any special considerations or accommodations requested by the student will not be allowed until testing results have been received and reviewed by the Assistant Director of Academic Services for Accessible Education. All requests are handled on a case-by-case basis. Students are encouraged to submit their documentation shortly after being admitted to the College to ensure that their accommodations are in place prior to the beginning of their first term.

At the beginning of each term, students will be required to obtain a Disability Accommodations Letter from the Assistant Director of Academic Services for Accessible Education Services in the Goode-Pasfield Center for Learning & Teaching. This plan outlines necessary accommodations in accordance with submitted documentation. Students will submit a Disability Accommodations Letter to each instructor in whose class they wish to receive accommodations. It is then the students' responsibility to speak with their professors regarding their accommodation. This process will be repeated each semester. The College does not permit substitutions for language, statistics or mathematics requirements. Please see <http://www.roanoke.edu/aes> for more information.

### **Internal Grievance Procedure for Students with Disabilities**

The College has an established written grievance procedure for students with disabilities. Any student with disabilities who has a specific problem or complaint (related to the accommodation's being requested) with any action taken or not taken by the college should first attempt to resolve the matter informally with the Assistant Director of Academic Services for Accessible Education. If the matter is not resolved to the student's satisfaction, it will be handled as outlined in the document, "Roanoke College Disability Accommodation Policy." A copy is available at [https://www.roanoke.edu/inside/a-z/index/center\\_for\\_learning\\_and\\_teaching/accessible\\_education\\_services](https://www.roanoke.edu/inside/a-z/index/center_for_learning_and_teaching/accessible_education_services)

### **Non-degree seeking Students**

Students who wish to pursue academic courses for purposes other than a Roanoke College degree are admitted to the College as a non-degree seeking student. These students must submit official academic transcripts for admission consideration and are subject to all academic rules and regulations of this College. If a non-degree seeking student later applies to be a degree candidate and is accepted, any courses completed as a non-degree seeking student at Roanoke College may be applied toward the degree. The residency requirement of 17 units, however, must be completed after acceptance as a degree candidate.

Intensive Learning, courses are not open to non-degree students.

High school students who wish to attend Roanoke must complete the application as a non-degree student and submit a current official high school transcript, along with any available SAT/ACT scores.

Students younger than high school age may request admission as non-degree seeking students. In these rare cases, the candidate must complete the Roanoke College non-degree student application and submit grades, a writing sample, and recommendations that indicate exceptional academic achievement, personal maturity and responsibility and the ability to handle the rigor of a demanding college course. A review of academic preparation and permission from the professor(s) of the desired course(s) are required for admission. Students who will be 16 years old at the beginning of the semester may be considered for full-time degree-seeking status.

### **GI Bill Beneficiaries**

Roanoke College is approved to offer GI Bill® educational benefits by the Virginia State Approving Agency. The Virginia State Approving Agency (SAA) is the approving authority of education and training programs for Virginia. The SAA investigates complaints of GI Bill beneficiaries. While most complaints should initially follow the school grievance policy, if the situation cannot be resolved at the school, the beneficiary should contact the office via email [saa@dvs.virginia.gov](mailto:saa@dvs.virginia.gov).

## **FINANCIAL AID**

To be considered for financial aid, the student must have been admitted to the College and plan to enroll as a degree-seeking student. Some programs require that students have a demonstrated financial need. Scholastic qualifications are also considered and, for College grants, awards and scholarships, priority is given to those students who have demonstrated academic talent and potential.

The Financial Aid staff determines who will be eligible to receive aid and the amount of that aid. In arriving at such decisions, the cost of education and the total resources available to the student are considered.

As part of the application process, students are asked to file the Free Application for Federal Student Aid (FAFSA). Students who are Virginia residents enrolling for the first time at a Virginia private institution are required to complete the Virginia Tuition Assistance Grant application (TAG) by July 31. Both the FAFSA and TAG applications are available from the College's financial aid office, as well as the College's webpage.

### **Financial Aid Regulations and Programs**

The Free Application for Federal Student Aid (FAFSA) is used by the College to determine the student's eligibility for need-based aid and serves as the initial application for financial aid. The FAFSA must be completed to receive any need-based funds from College, state, or federal sources. The College, through endowment and annual giving by alumni, friends, and parents, provides funds for student aid in a variety of forms. When these funds are considered with those from the federal and state programs, financial aid to students may reach substantial proportions. However, it is necessary to qualify for aid within certain limits and regulations.

In order to be fair to all applicants for financial assistance, the Financial Aid Office has established regulations governing the administration of the available funds.

1. Financial aid will be considered for new students after they have been approved for admission.
2. An applicant must file the Free Application for Federal Student Aid after October 1 to be considered for need-based aid. The application is available online October 1 each year.
3. Financial aid of various types is available to full-time, first time degree-seeking students carrying a minimum of three units per term. Generally, half-time students who are candidates for their first baccalaureate degree may apply for some federal student financial aid programs but are not eligible for the Virginia Tuition Assistance Grant Program or most College grants and scholarships.
4. To renew merit-based financial awards, a recipient of aid should not be found in violation of College conduct policies and regulations and must maintain satisfactory academic progress according to guidelines available from the Financial Aid Office. To renew need-based assistance, recipients must complete a FAFSA each year. Eligibility for the Roanoke College Supplemental Grant may change if eligibility for need-based aid or residency status changes.
5. Financial assistance is normally based on enrollment for a full academic year.
6. With few exceptions (outside tuition benefit) total institutional dollars awarded to a student cannot exceed the cost of tuition in any given year.
7. Graduate students are encouraged to apply for financial aid by filing the Free Application for Federal Student Aid (FAFSA). Those who do will be considered for Federal student aid programs.
8. Financial assistance is available to students regardless of race, national or ethnic origin, religion, sex, disability, or age.

### **Types of Financial Aid**

Eligible students may qualify for one or more of the following:

Roanoke College Scholarships

Roanoke College Grants/Awards  
Roanoke College Trustee Award  
Roanoke College Presidential Award  
Roanoke College Dean's Award  
Roanoke College Faculty Award  
Roanoke College Maroon Award  
Roanoke College Fellows/Honors Award  
Bishop Jim Mauney Lutheran Student Grant  
Roanoke College Supplemental Grant  
Virginia Tuition Assistance Grant Program★  
Visit Roanoke Grant  
Support from Independent Financial Organizations  
Federal Pell Grant  
Federal TEACH Grant  
Federal Supplemental Educational Opportunity Grant (FSEOG)  
Federal Work-Study Program (FWSP)  
Federal Direct Subsidized Loan Program  
Federal Direct Unsubsidized Loan Program  
Federal Direct Plus Loan  
Private Alternative Loans

★Roanoke College students who are bona fide residents of the Commonwealth of Virginia for one year may be eligible for Virginia Tuition Assistance Grant. Detailed program descriptions and eligibility criteria are available upon request from the Financial Aid Office.

Roanoke College is approved to offer GI Bill® educational benefits by the Virginia State Approving Agency. Students who may be eligible for VA or GI benefits should contact the Veterans Administration to confirm and obtain a *Certificate of Eligibility*. This form must be submitted to the Registrar's Office as soon as possible to begin processing of benefits.

## **STUDENT SERVICES**

The Division of Student Affairs provides a variety of programs and services that contribute to a student's academic experiences and the educational mission of the College. Specific program and service areas include athletics, campus recreation, campus safety, Care Team, Colket Center, crisis intervention, student health and counseling services, residence life and housing, student activities, and student conduct.

### **Residence Life & Housing**

On behalf of the Residence Life & Housing staff, welcome to campus living! Our goal is to make your residence hall living experience a significant and positive part of your college life and beyond.

Like many private, liberal arts colleges, Roanoke is a residential college. That means that the campus living environment is an integral part of the college experience and is highly valued by the campus community as a complement to the classroom experience. We believe that living together in community provides residents opportunities to interact with other students, faculty and staff to enhance their social and interpersonal growth as citizens through shared living experiences.

The Residence Life & Housing staff is committed to encouraging an inclusive residence hall community that promotes civic and social responsibility, intellectual and personal growth, and physical and emotional well-being in its residents. We strive to achieve this community by providing our residents appropriate challenges and

opportunities, support and encouragement, respect for community standards and recognition of one another's individuality.

Students who inform Roanoke College Residence Life & Housing in a timely manner that they identify beyond the binary or as transgender will be housed in keeping with their gender identity, and every attempt will be made to give those students safe and comfortable housing.

***As members of a residential college, Roanoke students are required to live on campus for four years as a student unless they meet one or more of the following criteria:***

- ☐ have lived in the Roanoke Valley area (within 30 miles of campus) for at least six months preceding the date of first enrollment and continue to reside with their parent(s)/guardian(s);
- ☐ are married;
- ☐ live with grandparents or siblings who live in the Roanoke Valley area;
- ☐ are 23 years old (before the beginning of the term they desire to live off campus);
- ☐ are a military veteran;
- ☐ are enrolled part-time (students who claim off campus status due to part-time enrollment and who return to full-time status during the current or a subsequent semester will be charged the current room and board rate);
- ☐ have received and accepted prior approval to live off-campus by the Residence Life & Housing staff and are currently living off-campus.
- ☐ are a 5<sup>th</sup> year senior.

Part-time students must receive permission from the Residence Life & Housing staff to reside on campus. With the exception of Elizabeth Hall residents, residents are required to purchase a meal plan.

Residence hall space is reserved for a student after the individual has been admitted and has paid the tuition and room and board deposits. New incoming students choose their room and roommate in early July.

Rooms are furnished with single beds (extra-long mattresses), dressers, closets or wardrobes, desks, and desk chairs. Students are expected to bring linens (extra-long), bedspreads, blankets, pillows, trash cans, lamps and any other personal articles. Housekeeping service is provided to clean common areas, but students are expected to maintain their individual rooms and apartments. The residence halls remain locked 24 hours a day. A room key and building access card are issued to each resident student. Each residence area is under the supervision of a professional Assistant Director. In addition, a student Resident Advisor (RA) is assigned to each living area. The RAs assist students and enforce College regulations. Greek Resident Managers (GRMs) are assigned to the fraternity and sorority areas on campus and perform similar functions. Coinless washers and dryers are available for use by resident students. Residence hall rooms and common areas have wireless internet access. Most students rely on their personal cell phones for telephone usage.

Rooms in residence halls, other than those designated for breaks and summer usage, are rented only for those periods of time that the College is in regular session as specified by the College calendar. Room changes are permitted until mid-spring semester. However, they must be approved by the Residence Life & Housing staff prior to the move.

The Resident Student Comprehensive Fee includes room and board and washer/dryer costs. Meals are served in the College cafeteria, known as the Commons, seven days per week. Commuting students may buy meals in the Commons. In addition, meals may be purchased in the Cavern, which is the College's dine-in/take out option, or at Freshens on campus.

For detailed information about living on campus visit [www.roanoke.edu/reslife](http://www.roanoke.edu/reslife).

## **Dean of Students Office**

The Dean of Students Office serves as a resource for students in the development of their co-curricular experience and making connections to various campus and community resources. The office is also responsible for planning, coordinating and implementing various programs and services that foster interpersonal growth, development and learning. In this capacity, the Dean of Students Office oversees the Care Team, fraternity and sorority life, student conduct system, and town/gown relations with respect to off-campus housing.

Located in the administrative offices of the Alumni Gym, the Dean of Students Office houses the Dean of Students, as well as the Assistant Dean of Students.

## **Student Activities and Colket Center**

Campus-wide social and co-curricular activities are coordinated through Student Activities in the Colket Center, the College's campus center. The Director Student Activities and Colket Center works with the student-run Campus Activities Board in providing a wide variety of activities to meet the needs and interests of the student body. Activities are open to all students and may include popular movies, live entertainment, dances, bands and special events. Student Activities also produces events series outside of CAB, like the popular FOTQ (Friday on the Quad) community picnics with live music during the fall. Two other series, Homebrews and Kickin' It Live events, as well as other student-produced programming, also offer alternative entertainment options to students. Student Activities also works with SGA (Student Government Association) to provide funding to clubs and organizations on campus to engage students, as well as providing direction for students interested in launching new clubs and orgs. Twice a year Student Activities holds a Student Activities Fair where club and orgs set up tables and activities to engage new students.

The Colket Center's boards, clubs, student orgs, and large staff of student employees (in ten different work groups) gain firsthand experience and education in leadership, social responsibility, and transferrable job skills. In all its programs, Student Activities and Colket Center empowers students in self-directed activity, giving maximum opportunity for "whole person" development. Also, involved students have better retention rates and the opportunity to develop close relationships with faculty and staff advisors.

Nine national Greek letter fraternities and sororities are recognized at Roanoke College provides additional social opportunities on Campus. Roanoke College provides designated housing for these organizations. The fraternity and sorority chapters and their founding dates are:

Alpha Sigma Alpha, Theta Beta Chapter, 2002 (women)  
Chi Omega, Pi Epsilon Chapter, 1955 (women)  
Delta Gamma, Gamma Pi Chapter, 1955 (women)  
Kappa Alpha, Beta Rho Chapter, 1924 (revived 1987, men)  
Pi Kappa Alpha, Phi Chapter, 2001 (men)  
Pi Kappa Phi, Xi Chapter, 1916 (revived 2004, men)  
Pi Lambda Phi, VA Lambda Kappa Chapter, 1959 (revived 2012, men)  
Sigma Chi, Tau Chapter, 1872 (revived 1923, men)

Free Valley Metro bus passes are available at the Colket Information Desk and allow students to get free bus rides to the Salem shopping centers and downtown Roanoke. The Information Desk also sells discount tickets to Regal movies theaters, as well as tickets for the Salem Red Sox minor league baseball games and the Roanoke Dawgs hockey games.

## **Student Government**

Responsibility in certain areas of campus life is delegated to the students by the President of the College. In these areas, the student government operates by designated authority rather than by inherent right. Participation in self-government helps develop the discipline and sound judgment necessary to put education to the wisest possible use.

Students are members of numerous governing bodies, including the Board of Trustees College Life Committee, Residence Halls Community Council, Academic Integrity Council, College Conduct Board, Student Conduct Council, Resources and Planning Council, Curriculum Committee, General Education Committee and Student



Life Council. The President of the Student Body is invited as a student observer to meetings of the Board of Trustees and of the Faculty.

### **The Office of Multicultural Affairs (OMA)**

The Office of Multicultural Affairs (OMA) exists to aid in the development of a more diverse and inclusive environment for all. Multicultural Affairs works collaboratively with the Office of Admissions, Academic Services, Financial Aid, and Residence Life and Housing to assist students.

The Office is committed to providing support services as well as creating and implementing educational, cultural, and social programs that will help the College in recruiting, retaining and graduating a diverse community of students. Our Motto is “Diversity means All of US”.

OMA and the Multicultural Lounge are located in the Student Affairs Suite, Alumni Gym, 2<sup>nd</sup> floor. The office can be reached at 540-375-2099. Visit us at: [https://www.roanoke.edu/inside/a-z/index/multicultural life](https://www.roanoke.edu/inside/a-z/index/multicultural%20life).

### **Student Media**

Students have written, edited, and published a weekly newspaper, The Brackety-Ack publishes out of the Garret Student Media Lounge, a Mac lab with Adobe Creative Cloud software on the 2<sup>nd</sup> floor of the Colket Center.

WRKE-LPFM is the student-run campus radio station, broadcasting at 100.3 on the FM dial and streaming at WRKE.ORG. In 2023, the Princeton Review named WRKE the 14<sup>th</sup> best college radio station in the country! This low power, 100-watt station covers most of the Salem Virginia area. It offers a variety of diverse programming and alternative rock during the academic year.

The student literary magazine, On Concept’s Edge, presents student-authored prose, poetry, and art work.

The Student Activity Media Arts Hall of Fame was founded to encourage the growth of independent student media projects and productions at Roanoke College and rewards student media creators who produce extracurricular programming that enhances student life.

In addition to the radio station and the Garret Student Media Lounge Media, other media facilities on campus include a podcast recording studio on the 2<sup>nd</sup> floor of Colket and a TV/Green Screen studio in the basement of the Fintel Library.

### **Art, Art History, Music and Theatre**

Olin Hall for Arts and Humanities, home of the Fine Arts department, serves as a major cultural arts center for the Roanoke Valley. Some of the outstanding facilities available in Olin Hall include a 404-seat main stage proscenium theater, 125-seat recital hall, 200-seat outdoor amphitheater; versatile classrooms, art studios, practice rooms, 50-seat studio theater, music rehearsal hall, media classrooms, and faculty offices.

Running parallel to the active studio and art history programs for students is programming in the Olin Hall galleries, which presents an annual season of nine art exhibitions and events complementing art and art history studies, as well as national touring exhibitions from such institutions as the Virginia Museum of Fine Arts and the Smithsonian. In addition, student works are exhibited annually in Olin Hall, culminating in the art majors’ exhibition held each year in the Olin and Smoyer Galleries.

In studio art, students in Olin Hall can develop their creativity in modern and fully-equipped painting, drawing, design, graphic art, computer, photography, printmaking, ceramic, and sculpture studios and laboratories. Students in art history study in Olin Hall’s excellent lecture rooms, where they discover, examine, and analyze visual masterworks of the past and relate them to current understanding of the social, political, religious, and aesthetic contexts of these works.

In music, a student may audition for the Roanoke College Choir, which performs at special events and on-campus and off-campus programs throughout the year. A Spring tour is often a part of the choir’s schedule. The Roanoke College Wind Ensemble and Jazz Ensemble perform four concerts a year as well as provide musical support for the College’s spring commencement ceremony and several sporting events. Student chamber

ensembles and soloists perform on Music at Noon concerts. Olin Hall also provides opportunities to hear the College's resident chamber ensemble, the Kandinsky Trio. Among its many instruments, Olin Hall is home to an exceptionally fine Steinway "D" concert grand piano.

In theatre, students audition for parts in several theatrical productions each year. Shows have included *Antigone*, *Twelfth Night*, *Midsummer Night's Dream*, *Dracula*, *Hedda Gabler*, *Miss Julie*, *Cat on a Hot Tin Roof*, *Good Woman of Setzuan*, *The Heidi Chronicles*, *Laramie Project*, *1959 Pink Thunderbird Convertible*, *Godspell*, *The Fantastiks*, *Little Shop of Horrors*, and *The 25th Annual Putnam County Spelling Bee*. Participation in theatre at Roanoke College gives students experience in acting, makeup, costuming, set design, lighting, stage management, and publicity, among other phases of production. This experience is available to students from all majors at the College.

Because Olin Hall is a prominent center for cultural activities in the Roanoke Valley, students at the college are fortunate to have exposure to many local and visiting artists, a roster that has in past years included such notable names as Christopher Parkening, Marian McPartland, John Cage, Philip Glass, Chanticleer, Solisti di Zagreb (Yugoslavian chamber orchestra), Dizzie Gillespie, and Metropolitan Opera stars Dawn Upshaw, Jerry Hadley, and Elizabeth Futral. Music students have had the benefit of personal instruction from these and numerous other visiting artists. In addition, Opera Roanoke and the Roanoke Symphony Orchestra have used the Olin Hall facility for their concerts in past seasons, and each season the department hosts the American Shakespeare Center from the Blackfriars Playhouse in Staunton, Virginia.

## **Athletics**

Roanoke College is a member of the National Collegiate Athletic Association Division III and the Old Dominion Athletic Conference. Per these affiliations, men compete with other colleges and universities in 12 sports (soccer, cross-country, basketball, baseball, indoor track and field, outdoor track and field, tennis, golf, lacrosse, swimming, volleyball and wrestling), while women compete in 11 sports (soccer, field hockey, volleyball, cross-country, basketball, softball, tennis, lacrosse, indoor track and field, outdoor track and field and swimming. Roanoke recently added competitive cycling. Men and women will compete with other colleges and universities in USA Cycling's Collegiate's Club Division.

Roanoke has excellent facilities to support every phase of a well-rounded athletic program. The Cregger Center is the college's newest facility, housing our Health and Human Performance Department and our Intercollegiate Athletic Operation. The performance gym in the Cregger Center is home court for Men's and Women's Basketball, Volleyball and Wrestling, while the Indoor Track serves our Men's and Women's Track and Field program and our campus community. The C. Homer Bast Physical Education and Recreation Center is also used for practices for Men's and Women's Basketball, Volleyball, as well as our smaller Wrestling events. On the main campus, there are two athletic fields, including Donald J. Kerr Stadium, the home for our Men's and Women's Soccer, Men's and Women's Lacrosse, and Field Hockey teams. Kerr Stadium is equipped with seating for 1000, floodlights and FieldTurf, a synthetic playing surface. The C. Homer Bast all-weather track flanks Kerr Stadium. Two tennis courts are close by. At the Elizabeth Campus, there are three athletic fields, all used for our intercollegiate practices and recreation and club sport activities. In addition, our Tennis Complex at the Elizabeth Campus, home of the Maroon Tennis programs, features eight courts. Roanoke teams also benefit from the fact that Salem, VA, is Virginia's Championship City. The city has hosted 88 NCAA National Championship events, many of them on our campus.

## **Campus Recreation**

Students have the opportunity to participate in intercollegiate, club, intramural and recreational sports and activities. The campus recreation department offers students a wide variety of club sports from which to choose including bass fishing, equestrian, rugby, ultimate Frisbee, and golf. Students with any level of experience are welcomed to compete. Roanoke College greatly supports students who wish to play club sports and provides the resources needed to make the participation in club sports a valuable and enjoyable experience.

Joining a Club sport can greatly enhance one's college experience. It provides students with an outlet to release stress that arises from classes, as well as a way for students to interact with people they otherwise would never have met.

Roanoke College intramural sports and Group Fitness classes are widely popular amongst all types of RC students. Intramurals allows students to participate in multiple activities on a team or on an individual level. Games can be played on a coed and single sex level. Students can formulate their own teams or join as individuals and be placed on a team. There are a wide range of intramural sports offered by season at Roanoke College such as indoor and outdoor soccer, flag football, basketball, dodge ball, kickball, and many others. Any level of experience is welcomed and encouraged since intramurals offer an ideal opportunity for students to learn and harness skills in many types of sports.

The Outdoor Adventures program takes advantage of the College's geographic location to offer various trips in the outdoors, as well as providing camping gear if students want to plan their own trip. This student lead organization also leads educational clinics about the outdoors that range in various topics of knot tying, fire building, paint night, and many other topics. Visit the Outdoor Adventure center in Bast to find out more about trips, clinics, and gear rental!

### **Health & Counseling Services**

Student Health & Counseling Services provides confidential and comprehensive on-campus health care services to all full-time students. Our staff includes Nurse Practitioners, Physicians Assistants, Registered Nurses, Licensed Professional Counselors and Licensed Clinical Social Workers. Health & Counseling Services staff work together to provide outreach to the campus community on topics related to physical and mental health. There is no charge for office visits; however, lab tests, certain procedures, physicals, immunizations, allergy or other injections incur charges payable by Maroon Money and most major credit cards.

Counseling services assist with the mental health needs of a learning community to better achieve personal and academic success. The professionally licensed staff provides personal and group counseling, informational programming and practical consultations, all free of charge.

Students also have access to TimelyCare telehealth services for medical and mental health needs throughout the year. These services can be reached at [www.roanoke.edu/timelycare](http://www.roanoke.edu/timelycare).

Health and counseling services does not provide excuse notes for class absences. Each professor establishes individual policies regarding absenteeism. Exceptions are made for those with confirmed influenza or SARS-CoV-2 infections. Students are encouraged to contact faculty members when illness or injury interferes with class attendance. In certain situations, Health & Counseling Services, with the student's permission, may notify individual professors of s student's illness or hospitalization.

All new full-time students are required to provide a complete health record containing medical history, immunization record, and tuberculosis screening. Students will not be able to register for classes until this record is received. Part-time students may be asked to provide documentation of immunization history in the event of a communicable disease outbreak.

Student Health & Counseling Services is located at 211 High Street, next to Chalmers Hall. We are accessible via telephone at (540) 375-2286. Additional information is available on the College website, via A to Z index.

### **Campus Safety**

The Office of Campus Safety supports the College's mission by providing a safe, secure and orderly campus environment where students can pursue their education and in which faculty and staff can teach and work. We pursue this goal through the protection of life, property and individual freedoms, the preservation of peace and order and the prevention of crime. Each day, we work to achieve our goals by providing efficient support services, campus patrol utilizing community policing practices, mentoring and educating students we contact, conducting professional and ethical investigations, providing effective emergency and crisis response and by employing well trained, courteous officers and staff.

Campus Safety works 24 hours a day/7 days a week to provide police and security services to the College community. Areas of responsibility include radio and phone communications, campus patrol, emergency and crisis response, alarm monitoring, escorts, safety programs, conduct code enforcement, traffic control, ID cards, motor pool and more. Officers are appointed Special Conservators of the Peace by the Circuit Court and have arrest authority on College property. The Campus Safety Office is located at 9 North College Avenue. The office can

be contacted at 540-375-2310 or in the event of an emergency by using:

- one of the direct-dial emergency “Red Phones” located inside many buildings or
- “Blue Light” emergency phone towers, located in five areas of main campus, as well as at Elizabeth campus

Each fall, Campus Safety publishes an *Annual Security Report* and an *Annual Fire Safety Report* for residential facilities, in compliance with the Higher Education Act of 1965. The *Annual Security Report* contains information about safety and security procedures and policies on our campus. Included are campus crime statistics for the most recent three calendar years. The *Annual Fire Safety Report* contains fire safety information about each residence hall, as well as statistical data and fire safety policies and procedures. A “notice of availability” of the reports is distributed to all students and the reports are available to prospective students upon request by contacting the Admissions Office. The reports can also be found on the college website at [http://www.roanoke.edu/inside/a-z\\_index/safety/reports/annual\\_security\\_report](http://www.roanoke.edu/inside/a-z_index/safety/reports/annual_security_report).

**Automobiles** - All students with vehicles on campus are required to register them with Campus Safety within 72 hours of arriving on campus. There is an annual vehicle registration fee and the decal must be displayed on the vehicle at all times when parking. Resident students from Virginia may be subject to paying personal property taxes on their vehicles to the City of Salem. These students should contact the City of Salem Commissioner of the Revenue to determine their status. A summary of parking and motor vehicle policies is distributed to students when a vehicle is registered and a parking decal issued. The complete policy is found in the Student Handbook or at [http://roanoke.edu/Documents/Parking/Student%20Parking%20Brochure\\_ebook.pdf](http://roanoke.edu/Documents/Parking/Student%20Parking%20Brochure_ebook.pdf).

### **Dining Services**

Meals are served in the College cafeteria, known as the Commons, seven days per week. All residential students (with the exception of Elizabeth Hall residents) are required to purchase a meal plan. Commuting students may buy meals in the Commons. In addition, meals may be purchased in the Cavern, which is the College’s dine in/take out option.

### **Student Conduct and the Disciplinary System**

A student’s relationship with the College is based on a contractual agreement that the student enters into voluntarily. By joining our College community, the student agrees to abide by policies of the College including the Student Conduct Code. Complete information in the student conduct system is found in the Student Handbook and in the Student Conduct Code.

### **Conduct Policies and Regulations**

College policies and regulations are designed to protect the rights of all students and to support the purpose and aims of the institution. Students are responsible for learning and abiding by the policies and regulations. These policies and regulations are found in the following publications: *Academic Catalog*, *Student Handbook*, *Academic Integrity at Roanoke College*, and the *Student Conduct Code of Roanoke College*. A partial summary of the regulations is given here:

**Academic Integrity** - The College seeks to maintain the highest standards of intellectual scholarship and works to promote honesty, integrity, and responsibility in all academic work. Violations of academic integrity (i.e., cheating, lying, plagiarizing, unauthorized use of an electronic device, impeding academic investigations, denying access to needed materials, etc.) are handled according to policies and procedures described in *Academic Integrity at Roanoke College*. Students need to be familiar with this booklet and pledge to follow the integrity guidelines.

**Alcoholic Beverages** - The College does not encourage the use of alcoholic beverages by students, nor does it condone the violation of applicable laws or College policies. The College respects the rights of students of legal age to consume alcoholic beverages in approved locations as long as they drink responsibly and adhere to applicable laws and College policies. Individuals who choose to consume alcoholic beverages, regardless of their age, are responsible for their behavior. The legal drinking age in Virginia is 21 years of age. The College seeks to educate students about alcohol use and abuse and provides information about assistance for those with a problem who seek help. The College reserves the right to limit or revoke the privilege of consuming alcohol on campus in the event that students do not drink responsibly.

**Consideration for Others** - Students are expected to observe and respect the rights of others, including the faculty and staff of Roanoke College who have a professional right to perform their duties without harassment or obstruction. The failure to do so, as defined in the Student Handbook, subjects the offender to disciplinary action, including suspension or expulsion.

**Drugs** - The possession, use, sale, or manufacturing of illegal drugs or paraphernalia which contains illegal drug residue, as well as the misuse of prescription drugs, is a violation of College policy and state law. Any student violating this policy may be subject to severe disciplinary action including suspension or expulsion. Law enforcement agencies are notified of drug-related criminal offenses occurring on campus and are given the names of those involved. The College seeks to educate students about substance use and abuse and provides information about assistance for those with a problem seeking help.

The College has a program aimed at preventing the illicit use of drugs and alcohol by students and employees in compliance with the Drug-Free Schools and Communities Act Amendments of 1989.

## **FINANCES**

The Business Office is open weekdays throughout the year from 8 a.m. to 4 p.m. However, from Christmas Eve until New Year's Day the College will not be open for normal daily operation. Online transactions may be accomplished 24/7 through a student's Self Service & Student Finance account and Person Proxy for parents (permissions set up by the student).

### **Tuition, Room and Board for Full-Time Students**

**Resident Students** Those students who both live in double occupancy rooms and board on campus, per academic year: \$52,140 including mandatory fees. All residential students on the main campus are required to be on a meal plan. The 19-meal plan is required for the freshman year, but a 14-meal and 9-meal plan option are also available for resident students after the freshman year based on housing choices. The charges for the meal plans and the method of tracking meal plan usage is determined by the College and is subject to review by the College each year.

**Commuter Students** Those students who do not live and board on campus, per academic year: \$36,494.

**Overload Tuition Fee** Applicable to each full unit taken in excess of five units in either first term (Fall) or second term (Spring). This fee is based on the number of units for which the student is registered at the end of the add period, at the per unit rate of \$1156.00.

### **Tuition for Part-Time Students**

Students who carry fewer than three units and do not room on campus pay tuition (based on the number of units for which the student is enrolled at the end of the add period) at the per unit rate of \$2,312.00. The activity fee is \$66 per semester for part-time students.

### **Tuition for Graduates and Senior Citizens**

Roanoke College graduates not seeking a graduate degree may enroll in any undergraduate credit course, either for credit or as an auditor, on a full or part-time basis and receive a discount of 50% off of tuition. Senior citizens who live within commuting distance of the college, are at least 60 years old, and are fully retired from normal full-time employment receive a reduction of 75% off of the tuition cost for credit courses. Qualifying senior citizens are only charged \$100 per unit for auditing a course.

### **Tuition for Intensive Learning Term**

The Intensive Learning (IL) Term is held in May of each academic year. There is no additional tuition charge for full-time students for one intensive learning term course. However, additional tuition costs will apply if the student was previously enrolled in an IL Term course beyond the add/drop deadline. Students who take more than one Intensive Learning Term course will be required to pay an additional tuition charge at the rate of part-time tuition \$2,312.00. This amount will be billed to the student account by the Business Office in April if these charges should apply.

Students attending Roanoke College at part-time status will pay tuition costs for May Term at the current rate per unit which will be billed to their student account in April.

Only degree-seeking students may enroll in Intensive Learning courses.

### **Housing during the Intensive Learning Term:**

**Current full-time commuter students** Housing fees if student moves on campus (see below).

**Current part-time commuter or transfer students, or current non-student** \$2,312.00 per unit tuition and housing fees if student moves on campus.

**Current full-time resident students** Students who lived on campus in Spring term may continue to live on campus during the Intensive Learning term at no additional cost if enrolled in their first IL course.

### **Housing Fees**

CATEGORY	ROOM	BOARD	TECHNOLOGY FEE
On-Campus 3 weeks			
	\$675.00	\$858.00	\$42.00
On-Campus 2 weeks			
	\$450.00	\$572.00	\$ 28.00
On-Campus 1 week			
	\$225.00	\$286.00	\$ 14.00

### **Refunds for Campus-based Courses in the Intensive Learning Term**

A 100% refund of tuition, housing and fees paid will be given to those students who drop an IL term course on or before April 15th. There will be a late drop fee of \$100 charged to any student who drops the course after April 15th, as well as a late fee of \$100 for students registering for an IL term course after April 15.

### **Travel Courses in the Intensive Learning Term**

The Roanoke College deposit for all travel courses is \$300. The deposit is due by November 15 and is nonrefundable. The remainder of the course fee is due by February 1. The tuition charge, if applicable, is equivalent to the part-time tuition rate for one unit. All tuition charges and course fees must be paid in full prior to departure for the course. Students attending Roanoke College at part-time status will pay tuition costs for May term at the current rate per unit which will be billed to their student account in April.

### **Miscellaneous Expenses**

**Activity Fee** A student activity fee will be charged to all students as follows; \$332.00 per semester for all full-time students and \$66.00 per semester for all part-time students. This fee is used to cover the cost of student activities available to all students.

**Application Fee** \$30 must accompany each application for admission. This fee is non-refundable.

**Applied Music Fee** (in addition to comprehensive fees)

**The fee per term for applied music is as follows:**

1. Students who have declared the concentration in Music Studies; full-time Roanoke College student; one applied music course/term to a maximum of 7 N/C
2. Music Studies students  
(as described in 1), per additional applied music course \$500

3. All other full-time or part-time students per applied music course \$500
4. MUSC 107 (Studio Ensemble) and MUSC 108 (Mixed Ensemble) fee \$125

This fee is applied to the account of students registered for applied music courses at the end of the add period. If withdrawal from a course occurs later, there is no adjustment to this fee.

**Auditor** For fee purposes, a course for audit is considered the same as a credit course.

**Breakage** Excessive breakage of equipment in laboratory courses or of any College property in residences halls or elsewhere will be billed to the person responsible.

**Credit by Examination** A service charge of \$1,156.00 per unit for currently enrolled students and \$2,312.00 per unit for former students is made for giving an examination for credit in a course. The student omits class work and attendance and desires credit by successful completion of a comprehensive examination in the course.

**Health Service Fees** There are no charges for most routine on campus healthcare and services. Students are charged for laboratory work, allergy injections, and special physical exams. Students are responsible for the cost of prescription medications and any services received off campus.

**ID Card Replacement** A \$50 replacement fee will be charged for lost ID cards.

**Late IL Term Add/Drop Fee** A \$100 fee is charged to all students who add or drop an IL term course after April 15th.

**Lost Key Charge** All resident students are issued a room key at no charge. There is \$50 charge for each key lost during the academic year, which covers the cost of changing the lock on residence hall rooms and issuing a new key.

**Orientation Fee** A \$150 fee will be charged to all new incoming full-time students to cover some of the costs associated with orientation activities. This fee is nonrefundable.

**Parking** A \$150 for residents, \$200 for commuters, nonrefundable fee will be charged for a vehicle decal for student vehicles. Fines for parking in non-designated spaces for students range from \$50-\$200. See "Motor Vehicle Policy" in the Student Handbook for details.

**Payment Plan** Detailed information is outlined under "Method of Payment."

**Print Allotment** Students are allocated \$50.00 per academic year (Fall and Spring) on their Maroon Card for printing at computer labs on campus. \$5.00 for Intensive Learning and \$10.00 for Summer School is also allocated. This fund is only for printing and is not refundable to the student.

**Return Check Fee or ACH Fee** A \$25 fee will be charged for each paper check and \$10 fee for each electronic ACH payment returned by a bank. After three returned items we will only accept payment in the form of guaranteed funds (ex. credit card, money order, cashier's check, etc.).

**Room Unlock Charge** Resident students who lock themselves out of their rooms are permitted one (1) free unlock per academic year. Each subsequent unlock will cost the student \$25.

**Service Charge** A \$10 fee will be charged for all miscellaneous fines turned over to the Business Office to be applied to the student account for collection.

**Single Room Fee** There is an additional charge for resident students who are housed in a single room depending on residence hall. Please refer to the college website or contact the Business Office for details.

**Student Discipline** Fines are part of the available disciplinary sanctions.

**Student Teaching Study Away** For Education licensure students approved to complete their student teaching requirement outside the Roanoke Valley an additional fee of \$1,000.00 is charged.

**Study Abroad Administrative Fee** A study abroad administrative fee of \$350.00 is charged to students applying to any of the Roanoke College approved study abroad exchange or affiliated programs. The fee is non-refundable.

**Technology Fee** A \$545.00 residential or \$405.00 non-residential per semester fee is charged to each full-time student for information technology equipment and services that support students' academic work. These facilities and services include, but are not limited to, the use of all student computer labs on campus, access to a wide range of standard software (e.g., word processing) in labs, electronic mail services and internet access, instructional software used by faculty and students, printing services in labs, help desk and technical support services, and the Fintel Library computer system.

**Unpaid Debt – Tuition, Fees, and/or Student Loans** Student accounts are payable at Roanoke College at the time such charges are incurred. Graduating students with outstanding financial obligations will have a hold placed on their records withholding release of a diploma, transcript and other College services until the debt is satisfied.

Roanoke College regulations prohibit the following for any student whose account with the College is delinquent until the debt has been satisfied: registration for classes, room selection, graduation, granting of credit, release of transcript, diplomas, schedules and loans.

Delinquent debts may be reported to a credit bureau. Unpaid student accounts which are deemed delinquent or student loans (i.e., Federal Perkins, RC Institutional) may be placed with a collection agency. Legal action may be taken to collect any balance due. If such action is required, the student/borrower will be liable for any cost associated with such action. The student/borrower should understand that collection fees will be a minimum of 33 1/3% of the outstanding balance including any reasonable legal fees and associated court costs.

**Variable Expenses** You will need to purchase textbooks for your college classes. Books will cost approximately \$1,000 for each of the four years of your studies. Transportation and personal expenses should also be calculated in your planning.

**Wellness Fee** A fee of \$100 per semester supports the use of telehealth services and wellness programming. Telehealth services provides on demand medical and counseling services as well as health coaching and is available 365 days a year, 24 hours per day and has licensed counselors and health care providers in all 50 states. This allows students to use the service year-round, even when away from campus during summer and school breaks.

## **Method of Payment**

**Advance Deposit** An advance deposit is required for all students for each academic year. This deposit allows the student to pre-register for classes for the upcoming term and for resident students, it allows them to participate in the room selection process. The advance deposit is due as follows:

Resident Students .....\$ 800

Commuter Students .....\$ 500

Part-time Students.....\$ 100

For new students, the advance deposit is due on or before May 1 and will be refunded for written cancellations received by May 1. For returning students, the advance deposit is due on or before March 1 and will be refunded, in full for written cancellations received by June 15.

For students not attending Fall term, the Spring term advance deposit is due prior to student pre-registering for Spring courses and is refunded in full for written cancellations received by December 1st.

The advance deposit will be applied against the tuition and fees charged for the current term. Resident students who request and receive permission to live off campus after June 15 will forfeit \$300 of the required advance deposit. The remainder of fees for each term are billed and due prior to the beginning of each term. Students will not be allowed to check-in with the Registrar's Office until their account is paid in full and all financial arrangements are completed.

## **Monthly Payment Plan**

Those who prefer to pay the comprehensive fee in monthly installments over four- or five-month period during the semester may choose plans offered by Nelnet. Nelnet offers interest-free monthly payment options by providing more manageable cash flow and greater budgeting flexibility for an enrollment fee of \$47 per semester. In addition, the plans provide life insurance for an insurable parent which covers the remaining portion of the student's contract in the event of the parent's death. Information is available on the Nelnet website or by calling Nelnet directly.



Information concerning the available payment plans may be obtained by calling or visiting the website of Nelnet.

Nelnet Campus Commerce  
121 S. 13<sup>th</sup> Street, Suite 301  
Lincoln, NE 68508  
Phone: 1-866-315-1263  
Website: [www.mycollegepaymentplan.com](http://www.mycollegepaymentplan.com)

### **Withdrawal / Refund Policy**

The College operates on an annual budget with commitments for faculty salaries and educational and plant expenses made a full year in advance. Therefore, Roanoke College has established a refund policy which is equitable to the College and students. The date of withdrawal used to compute refunds is the date the student last attended class, as recorded by the Registrar's Office for tuition and fees and date of move out for housing and meal plan.

For students who withdraw or separate from the College for any reason prior to the beginning of a term, a refund of all tuition, room, board, and fees paid will be made, less the advance payment required of all students, provided a written notice is presented to the Office of the Registrar by the matriculation date.

If an enrolled student withdraws before the 60% point of the period of enrollment, a refund of tuition, room, board, and activity fees will be calculated using calendar days and pro-rated based on the student's date of withdrawal and move out. Any financial aid that is not earned must be returned to its source. The calculation of the return of these funds may result in the student owing a balance to the College or Federal Government. Federal funds will be returned in accordance with federal regulations. In addition, balances owed to Roanoke College – such as parking fines, student health fees, disciplinary fines, library fines, etc. – will be deducted from any refund due before any disbursement is made to the family.

In accordance with federal regulations, the College believes that it is the responsibility of the family to pay affordable educational costs before any financial aid is paid. In view of this basic approach to the family support, any charges to a student account that are assessed for the period of enrollment prior to a withdrawal or suspension are viewed as first having been paid by the student and the student's family.

Therefore, all financial aid will be returned to its source before any funds will be refunded to the student or the student's family.

Upon a withdrawal from the College for any reason, the Housing Agreement is terminated and the resident student forfeits any current or future room assignments. Residents must vacate their living areas within 48 hours. Upon readmission to the College, the student will be assigned housing based on available accommodations. Changes in room assignments can be made by contacting the Residence Life & Housing office.

A student may be granted a withdrawal for health reasons when physical or psychological functioning is so impaired that they cannot meet course requirements for the remainder of the term. The refund is calculated based upon the unused portion of total fees (prorated for the entire length of the term). The withdrawal request must be substantiated by documentation from an appropriately qualified, licensed health care provider (e.g., physician, Health Services staff, mental health practitioner, Counseling Center staff) which includes the following: a diagnosis of the condition, the time frame during the term in which the diagnosed condition occurred, a functional description of how this prevented the student from being able to continue or complete the academic requirements, and a recommendation of withdrawal for health reasons.

A student granted a withdrawal for health reasons must receive permission from the College to re-enroll. Such permission is contingent upon the College determining that the individual is capable of meeting the requirements of the College environment without detriment to the student's personal health, the health or educational progress of other campus community members, or the educational process of the institution. The student must reapply at least one month prior to the beginning of the term in which reinstatement is desired. The application must be substantiated by documentation from an appropriately qualified, licensed health care professional recommending readmission and functionally describing how the health impairment is sufficiently resolved so that there is a reasonable expectation the student can persist to complete the academic requirements of the term. The student must give written consent to an appropriately qualified, licensed health care provider to discuss the individual's

situation with appropriate College officials. The final determinations for withdrawal and readmission shall be at the sole discretion of the College and for reasons deemed satisfactory to the College. Roanoke College reserves the right to withdraw a student or take other appropriate action if College officials determine a student's conduct or condition is detrimental to the health or educational progress of other campus community members or the educational process of the institution.

### **Special Note**

The College reserves the right to make changes in requirements, fees, course offerings, or other specified policies at any time.

The College neither gives final examinations, grants a degree, nor issues grade report forms or transcripts of credits unless satisfactory arrangements have been made with the Business Office for payment of all fees. Should payment of any fee become delinquent (10 days overdue) the student may be excluded from classes, and future use of credit may be denied.

## **ACADEMIC HONORS AND AWARDS**

Outstanding academic and extracurricular achievement is readily recognized at Roanoke College. Students who attain and maintain high levels of performance are honored each year in many ways.

### **Semester Honors**

**The Dean's List** Students are placed on the Dean's List of Distinguished Students if their semester grade point average for any Fall or Spring term is at least 3.5 but less than 4.0, with no grade below "C" in any course. The student must have been enrolled for credit in at least four units, three of which were for a letter grade (excluding pass/fail and audit).

**The President's List** Students are placed on the President's List of Distinguished Students if their semester grade point average for any Fall or Spring term is 4.00. The student must have been enrolled for credit in at least four units, three of which were for a letter grade (excluding pass/fail and audit).

### **Junior and Senior Scholars**

**Junior Scholars** A student classified as a junior during or at the end of the Fall term who has earned a minimum of 16 units at Roanoke College with a cumulative grade point average of 3.00 or higher is awarded a certificate of recognition as a Junior Scholar by the faculty.

**Senior Scholars** Annually, the department or coordinator in each major may recommend to the Dean as Senior Scholar a student whose work in that field has been most exemplary. In order to be considered, a student must have at least a 3.2 cumulative academic average and must have earned at least 25 units of credit, of which at least 17 units have been earned at Roanoke College. Eligibility is determined from among currently enrolled students on the basis of their academic records as of the end of the Fall term.

### **Degrees with Distinction**

Degrees **Cum Laude**, **Magna Cum Laude**, or **Summa Cum Laude** are conferred upon students who have earned a cumulative grade point average of at least 3.4, 3.7, or 3.9, respectively, for all courses taken at Roanoke. The student must have completed a minimum of 17 units (excluding physical education and co-curricular activities) at Roanoke College and completed all degree requirements to receive a degree with distinction.

### **Honors in Majors**

Qualified students may apply for honors in their major(s) by completing an honors project, which will consist of a program of independent study culminating in a paper, artistic creation, or performance. Students who meet the criteria given below will receive the designation "Honors in (field of study)" on their diplomas.

Students applying for major honors work must have at least a 3.4 grade point average in the major, calculated at the time of their application for honors work. In order to receive honors, students must have at least a 3.4 GPA in their major at graduation.

The honors project must be sponsored by a faculty member or members in the student's major, who will serve as the primary advisor(s) for the project, and by a committee composed of the primary advisor(s) and not fewer than two additional faculty. (Advisors are encouraged to include a faculty member from outside the student's major on the committee.)

Honors work is undertaken in the senior year or in the Summer prior to the senior year. While the project may be based on previous work, e.g., a seminar paper or independent study, it must represent a significant and original project over and above any past work. Application for major honors work is made the semester or Summer prior to undertaking the project.

Students applying for major honors work must submit a proposal to their committee. If the committee and department administering a student's major approve the proposal, permission to enroll in honors work in the following term will be forwarded to the Associate Dean for Academic Affairs. At the discretion of the department a student may take one unit of honors work in one semester or two one-half units over two semesters. The department will determine whether honors credit may be used as an elective in the major. The application form is available in the Office of the Associate Dean for Academic Affairs and Administration.

The committee will evaluate the completed project based on the final product and on an oral examination. Projects other than research papers must include a narrative essay describing the work.

The primary advisor(s) will assign a letter grade for the project after consulting with the other committee members. Students completing the one-half unit honors course will receive a grade of "NG" at the end of the first term of the project; upon completion of the second half-unit course, the grade for the entire project will be assigned to both courses. If the student does not complete the second half-unit course, a letter grade will be assigned to the first.

Students whose projects receive a grade of "A-" or higher will be awarded honors, provided they have a 3.4 GPA in their major at graduation. Departments are encouraged to arrange a public forum to allow students receiving major honors to present their work.

### **Valedictorian and Salutatorian**

The valedictorian and salutatorian of the senior class will be selected from among those graduates who have completed at least 22 units (excluding health and human performance and co-curricular activities) while enrolled as full-time students at Roanoke College.

### **Honor Societies**

A high degree of excellence in certain fields will bring the student the distinction of invitational membership into one or more of the honorary fraternities with chapters on campus. Among these groups are the following:

**Alpha Chi** National college scholarship society dedicated to the stimulation of sound scholarship and devotion to truth. Eligible members are selected from the top 5 percent of the junior class and the top 10 percent of the senior class. Juniors must have at least a 3.8 cumulative grade point average, and seniors must have at least 3.5. Students must also have earned at least eight units at Roanoke College and possess exemplary character.

**Alpha Epsilon Delta** National honorary society recognizing outstanding academic achievement among students aspiring to a career in medicine, dentistry, pharmacy, veterinary and other health professions.

**Alpha Kappa Delta** National honorary society recognizing superior achievement in sociology.

**Alpha Lambda Delta** National honorary fraternity for freshmen whose grade point averages are 3.5 or higher after the first term.

**Alpha Phi Sigma** National honorary society recognizing academic excellence in Criminal Justice.

**Alpha Psi Omega** National honorary dramatics fraternity recognizing excellence in stagecraft.

**Beta Beta Beta** National honorary biological society for students with a superior academic record.

**Delta Mu Delta** National honorary society recognizing superior academic achievements of majors in business administration.

**Kappa Delta Pi** International honor society in education.

**Lambda Pi Eta** National honorary society recognizing academic excellence for communications majors.

**Omicron Delta Epsilon** National honorary Economics society is open to Economics majors with excellent academic standing. The student must have an overall grade point average of at least 3.0 and at least a 3.0 grade point average in four or more Economics courses.

**Omicron Delta Kappa** National leadership honor society for college students recognizes and encourages superior scholarship, leadership, and exemplary character.

**Phi Alpha Theta** National honor society for history majors with superior records.

**Phi Beta Kappa** The oldest and most prestigious academic honor society in the United States. The keyholders among the faculty and staff of Roanoke College maintain a Phi Beta Kappa chapter (Nu of Virginia) on campus. Student members are elected at the discretion of the keyholders on the basis of a high grade point average in liberal art courses, breadth and depth of studies in the liberal arts, and good character. Students with very high grade point averages become eligible at the end of their fifth semester; the majority of members are inducted in their senior year. There is no set formula for election; however, the national society requires students to have the equivalent of at least two years of algebra and two years of college-level modern language instruction (through the intermediate level).

**Phi Sigma Tau** National honor society for Philosophy.

**Pi Lambda Upsilon** A national honor society for outstanding students of Chemistry and Biochemistry.

**Pi Delta Phi** National honor society for students with a superior record in French.

**Pi Mu Epsilon** National honor fraternity for excellence in mathematics.

**Pi Sigma Alpha** National honorary society recognizing academic excellence in Political Science.

**Psi Chi** National honor society recognizing superior achievement in psychology.

**Sigma Delta Pi** National honor society for students with a superior record in Spanish.

**Sigma Iota Rho** National honorary society recognizing academic excellence in International Relations.

**Sigma Tau Delta** National honor society recognizing superior achievement in English language and literature.

**Society of Physics Students** and **Sigma Pi Sigma** National organization which promotes educational activities for all students interested in physics.

**Student Affiliate Chapter of the American Chemical Society** Honorary society for chemistry majors designed primarily to promote interest in and appreciation for the science of chemistry and related fields.

**The National Society of Leadership and Success**

**Theta Alpha Kappa** National honor society for Theology and Religious studies.

**Xi Theta Chi** Honorary fraternity for students showing proficiency in modern languages.

## **Prizes and Awards**

High standards of academic achievement and personal conduct are acknowledged at Roanoke College in a series of annual awards and prizes.

**Karen Adkisson Award** An award is presented annually in honor of the late Karen Adkisson, the first female faculty member in the Biology Department, for high achievement in the introductory Biology course sequence.

**Alpha Kappa Delta Award** A prize awarded annually to a sociology major who is a member of Alpha Kappa Delta and who most exemplifies the objective of AKD: “to promote an interest in the study of sociology, research of social problems, and such other social and intellectual activities as will lead to improvement in the human condition.

**Alpha Lambda Delta Senior Awards** This award is presented to one or more Alpha Lambda Delta members who is a graduating senior with the highest scholastic average.

**Alpha Psi Omega Award** An award presented for outstanding service and contribution to theatre at Roanoke College.

**American Chemical Society Student Affiliate Award** One year membership in the ACS Student Affiliates are provided by the Chemistry Department for students showing outstanding promise in the field of chemistry.

**American Institute of Chemists Student Award** A certificate and one-year membership for the American Institute of Chemists are awarded to a senior in recognition of potential advancement in the chemical professions.

**Karl W. Beck Memorial Prize** A monetary prize that is made possible by gifts of friends in memory of the late Karl W. Beck, who was a professor and chair of the Roanoke College Psychology Department. This award is given for excellence in Psychology.

**C. Randolph Benson Applied Research Award** A prize named after C. Randolph Benson, founder and chair of the department, and pioneering publisher and gay rights activist. The prize is awarded annually to an advanced student in the Sociology, Public Health Studies, Anthropology, and Crime, Deviance and Social Control Programs whose project is judged by the department faculty to be the most outstanding demonstration of applied research.

**Franz Boas Anthropology Paper Prize** A prize awarded annually to the author of the paper judged by a faculty panel to be most outstanding in its demonstration of analytical acuity, clarity of writing, and capacity to contribute to anthropological scholarship.

**Dr. C. W. Bondurant Student Affiliate Award** An annual award, in honor of Dr. Charles W. Bondurant, given by the students of the American Chemical Society Student Affiliate chapter to a Chemistry or Biochemistry major who has excelled both in the study of chemistry and involvement with the Roanoke College community.

**John T. Bowman Memorial Award** A prize in money that is made possible by the income from a gift from Mrs. John T. Bowman of Salem, Virginia. This award is given to a senior student for outstanding work in the field of religion or religious activities.

**Harry J. Breithaupt Award** This award is presented in recognition for one or more essays judged as excellent in the field of United States history and/or American government.

**Harry J. Breithaupt Scholarship** This scholarship is awarded to one or more students who is a Virginia resident and who has displayed interest and aptitude in the study of American political system.

**Breithaupt Scholarship for Mastery of the English Language** This scholarship is awarded to a student who is a Virginia resident who has attained masterful proficiency in the knowledge and use of the English language.

**Breithaupt Scholarship for the Scholarly Study of Literature in English** This scholarship is awarded to a student who is a Virginia resident who has demonstrated a lively aptitude for the scholarly study of literature in English.

**Annie Terrill Bushnell Prize** A monetary prize that is awarded annually by the estate of Mrs. William A. Anderson, Jr., in memory of her mother, Annie Terrill Bushnell, to the woman student who has shown the highest qualities of leadership and loyalty to the College and to her fellow students.

**The Reverend Doctor John E. Bushnell Prize** A monetary prize that is awarded annually by the estate of Mrs. William A. Anderson, Jr., in memory of her father, The Reverend Doctor John E. Bushnell, to the male student who has shown the highest qualities of leadership and loyalty to the College and to his fellow students.

**Business Advisory Board Award** This award was established by alumni and friends of the Business Administration Department. This prize is awarded annually to one or more rising seniors in Business Administration who demonstrate academic excellence and good student citizenship.

**Curt R. Camac Student Research Award** From 1986 to 2012, Dr. Curt Camac was one of the leaders of a campus-wide movement to increase student-faculty research. As an inspiration to both students and faculty, he helped pave the way for the tremendous growth in research experiences we offer at Roanoke. This grant was developed in his honor to support student research.

**Joanne Leonhardt Cassullo Prize in Art History** A monetary prize that commemorates Ms. Cassullo's generous support of our program. She is a 1978 graduate of Roanoke College and a member of the Board of Trustees. This award is given annually to the outstanding student in Art History.

**Julia McBriety Chalfant Memorial Award** An award made possible by the income from gifts of family and friends in memory of the late Julia McBriety Chalfant '63 for excellence in mathematics.

**Chemical Rubber Company Freshman Chemistry Award** A book prize, awarded annually by the Chemistry Department and the Chemical Rubber Company of Cleveland, Ohio, to the student who has shown the greatest achievement in general chemistry.

**Communication Studies Outstanding Performance Award** An award recognizing an outstanding student in Communication Studies, chosen by the Communication Studies faculty, who shows a high degree of promise in the field. The name of each year's winner will be inscribed on a perpetual plaque and the designated student will receive a cash award.

**Community Service Award** A prize awarded annually to an advanced sociology or public health studies major who has contributed significantly to the local community through work in social services, social justice and community issues.

**Computer Science Outstanding Achievement Award** This award recognizes a student (or students) who has been outstanding in computer science coursework and research.

**Creative Writing Outstanding Achievement Award** The citation recognizes outstanding writing by creative writing students early in the major. Recipients will have their names inscribed on a plaque displayed in Miller Hall.

**Richard deOlazarra Scholarship** This endowed scholarship was established to honor Richard deOlazarra who taught Marketing for 30 years. The scholarship is awarded annually to an outstanding and deserving rising senior in the Marketing Concentration.

**The Perry and Jessica Downing Endowed Honors Distinction Award** This award is presented to an exemplary Honors Program student to aid in the completion of an Honors Distinction Project that has been deemed especially notable and therefore deserving of recognition and support.

**Julius D. Dreher Endowed Scholarship Award** Dr. J. D. Dreher, President of Roanoke College from 1878 to 1903, provided a bequest to "endow a prize scholarship in English language and literature to be awarded annually in the junior class under regulations to be established by the English Department." This scholarship is applicable toward tuition during the senior year at Roanoke College. Only English majors of junior standing are eligible for the award.

**The Charles E. Early Award** In honor of Dr. Charles Early, retired Professor of Psychology, who taught at Roanoke from 1988 to 2015, this award goes to the student who best embodies Dr. Early's love of learning, powerful work ethic, keen intellect, warm humor, and deep appreciation for pie.

**English Department Teaching Award** The award recognizes a student pursuing one of the majors in the English Department who is also working toward an Education minor or teacher licensure and who is fully committed to a career in teaching. The student receives a cash award.

**Environmental Studies Leadership Award** This award, given by the Environmental Studies Program, recognizes outstanding contributions in environmental leadership.

**Environmental Studies Promise Award** Given to a new, first-year or transfer student, this award recognizes outstanding performance and promise for future contributions in Environment Studies.

**Environmental Studies Research Award** This award, given by the Environmental Studies program, recognizes outstanding contributions to the program in research.

**William Ergle Memorial Award** Created by the Department of Mathematics, Computer Science and Physics to recognize William Ergle, who served as a beloved chair of the department for 15 of his 44 years of service to Roanoke College. This award honors a student who has demonstrated excellence in statistics.

**John Todd Faw Memorial Award** An annual monetary award granted to that Roanoke College student who best exemplifies the spirit of J. Todd Faw, a Roanoke College sophomore at the time of his death in 1982. The recipient should demonstrate an active concern for the Roanoke College community; possess the personal qualities of concern for others, intellectual curiosity, and initiative; and have the commitment and potential to improve society.

**Fine Arts Prizes: Art, Art History, and Archaeology, Music, and Theatre** A prize in money awarded annually to increase interest and reward excellence in the Department of Fine Arts to those students whose work in the department is most outstanding for the year.

**Lawrence D. and Mary A. Fisher Scholarship** The income from a gift provided by Dr. and Mrs. Charles Fisher is used to assist an outstanding student majoring in Chemistry or Biochemistry.

**Herta T. Freitag Mathematics Award** An award that is made possible through the generosity of Herta T. Freitag, a mathematician, educator, and long-time friend of Roanoke College. The award is presented annually to an outstanding senior mathematics major, selected by the Mathematics faculty of Roanoke College.

**Patricia M. Gathercole Literature Award** This monetary award is given to the student (or students), majoring or minoring in Modern Languages, who has done exceptionally well in the study of French, German, or Spanish literature.

**Gender and Woman's Studies Concentration Best Major Research Project Award** Awarded to the best senior thesis, summer scholar project, honors in the major project, or other paper longer than twelve pages in length.

**Sam Robert Good Award** This endowed award was created by a gift from Inez E. Good of Salem, Virginia, in memory of her husband, Samuel R. Good '50 and his contributions to Theatre Arts at Roanoke College. Both Mr. and Mrs. Good were longtime professors at Roanoke. Mr. Good taught in the Fine Arts Department and Mrs. Good taught in the Modern Languages Department. This fund will generate a prize in money awarded each year to a student who has demonstrated both theatrical and academic excellence at Roanoke College.

**Edward J. Hamilton Award** A prize awarded annually in memory of Dr. Edward James Hamilton, who served as the Director of Academic Grants and Foundation Relations and taught grant proposal writing from 2002 to 2015. The prize goes to the students with the best grant proposal or work supporting a grant proposal submitted in the Public Health Studies Community Health Seminar.

**Health and Human Performance Department Award Health and Exercise Science, Sport Management** A one-year membership in the American College of Sports Medicine & Southeast Regional Chapter, the Society of Health and Physical Educators or National Athletic Trainers' Association and a monetary award are presented to an upper-class Health and Human Performance major who has excelled in work performed during the past year.

**C. William Hill, Jr. Criminal Justice Award** This award is named in recognition of the service and leadership of C. William Hill, Jr., Professor of Political Science, who began teaching at Roanoke in 1969. This prize is awarded annually to one or more graduating seniors majoring in Criminal Justice who has demonstrated academic excellence and outstanding potential for continued scholarly growth.

**Pendleton Hogan Mary Queen of Scots Award** The income from a gift by Pendleton Hogan '29, aids one or more Roanoke College students who research the Mary Queen of Scots era.

**James Lewis Howe Award** An award provided by the Blue Ridge Chapter of the American Chemical Society and named in honor of James L. Howe, a former member, presented to an outstanding Chemistry or Biochemistry major.

**The N. Jane Ingram Memorial Award** Created by the Department of Mathematics, Computer Science and Physics to recognize Jane Ingram, who retired in 2012 after 34 years of service. This award honors a student who has demonstrated excellence in Computer Science.

**The Inorganic Chemistry Award** A certificate of recognition and commendation from the Chemistry Division of the American Chemical Society.

**Patricia Dragon Jordahl Award for Service in Modern Languages** A monetary award presented to a senior major or minor in a modern language who has demonstrated strong academic performance. This award recognizes outstanding service to the Department of Modern Languages and/or to the teaching and learning of modern languages.

**The Brian Keith Award** The Brian Keith Award is awarded annually as a prize for one or more history students who have shown leadership and service within the Roanoke College student Historical Society.

**Daniel Poe Klein Scholarship** This scholarship award was established by gifts from his parents, brothers David and Thomas, and friends in memory of Daniel Poe Klein, a member of Pi Kappa Phi. It is presented annually to the male rising senior who has demonstrated outstanding talent in the field of health and human performance and who has shown exemplary moral leadership in the College community.

**The Kim Kyusik Award** A monetary award presented to students who have demonstrated academic excellence in the field of East Asian history.

**Gary Wesley Leonard Memorial Award in Biology** An award presented annually in honor of the late Gary Wesley Leonard, a Biology major at the College at the time of his death. This award is made possible by anonymous gifts of his friends and the Beta Beta Beta national honorary biological society. The recipients are chosen by the staff of the Biology Department from the members of the junior or senior class on the basis of general academic excellence, major work of high proficiency in the field of biology, and good student citizenship. The names of the winners are inscribed on a perpetual plaque.

**Evans W. Lindsey Memorial Prize** A monetary prize, provided annually through a gift by the late Mr. J.W. Burrell, is bestowed students who, on an advanced level, have done outstanding work in the field of two or more modern languages and served as an inspiration to fellow students.

**Literary Studies Outstanding Sophomore Performance Award** An award recognizing an outstanding sophomore major in Literary Studies and shows a high degree of promise in the field. The recipient, chosen by the Literary Studies faculty, must have completed twelve course units; must have completed or is in the process of completing four courses in the major; and must have an overall GPA of 3.0. The name of each year's winner will be inscribed on a perpetual plaque and the designated student will receive a cash award.

**Darryl W. Lowry Endowed Scholarship** This endowed scholarship is awarded annually to the outstanding rising senior in Economics. The recipient is chosen by the Economics faculty, and the scholarship is awarded for the following academic year.

**Jesse Lee and Mary Elizabeth Lucado Endowed Scholarship** This endowed scholarship is given to one student in a teacher preparation program and one student in a teacher preparation program in Health and Physical Education with a minimum of 3.0 GPA, and with preference given to those who are active in campus academic, social, and sports life in leadership roles.

**The Jan H. Lynch Human Development Concentration Award** In honor of Dr. Jan Lynch, retired Professor of Psychology, who taught at Roanoke from 1980 to 2015. This award goes to the students who have demonstrated excellence in the Human Development Concentration.

**Lynch Scholarship in Finance** This endowed scholarship was established in honor of Dr. Larry Lynch, who taught finance for 37 years as well as chaired the Business Administration and Economics Department. The scholarship is awarded annually to one or more outstanding rising seniors in the Finance Concentration.

**Mathematical Association of America Membership Award** An award given by the Mathematics, Computer Science and Physics Department that recognizes students with outstanding achievement in mathematics at the freshmen, sophomore or junior level.



**Margaret Mead Leadership Award** An award given annually for outstanding leadership and service in contribution to anthropology and cultural awareness at Roanoke College.

**The Merck Award** A Merck Index, provided by Merck & Company, Inc., is awarded to an outstanding graduate in Chemistry or Biochemistry.

**The Susan Millinger Award** This award was created by the Department of History to recognize the contributions of Susan Millinger, who retired in 2007 after 32 years of service. This award honors a student who has shown exemplary work in the fields of ancient, medieval, or the history of gender.

**Conrad Moldenhauer Memorial Scholarship** This scholarship, funded by family and friends of Conrad Moldenhauer, will provide financial assistance for students who wish to take part in the Roanoke College Oxford Summer Scholars Program. Conrad took part in this program in 1992 and considered it an experience of a lifetime. The selection of scholarship recipients will occur through a collaboration of Roanoke College History Department and the Office of Financial Aid.

**The Anna Morgan Award for Excellence in Communication Studies** This award recognizes a senior who excels in communications studies and who has demonstrated a commitment to the field.

**Frank Munley Physics Award** Created by the Department of Mathematics, Computer Science and Physics to recognize Frank Munley, who retired in 2008 after 22 years of service. This award honors a student who has demonstrated excellence in Physics.

**The Andrew Murphy Award for Fiction** An annual prize in “Bucks”, for the best short fiction written by an undergraduate at Roanoke College. The anonymous donor requests that the award be determined by at least three members of the English Department faculty.

**Ronald R. Oetgen Organic Chemistry Award** This award is named in recognition of the service and leadership of Ronald R. Oetgen, Professor of Chemistry, who taught at Roanoke from 1967 to 2006. A certificate of accomplishment and a book are presented to the outstanding student in the two-semester Organic Chemistry course.

**Omicron Delta Epsilon Award** This award goes to an Economics major who has made an outstanding contribution to undergraduate education. The recipient is chosen by the Economics faculty and receives an Omicron Delta Epsilon gold key pin.

**Outstanding Gallery Assistant Award** A monetary prize sponsored by the Art History program in the Department of Fine Arts, awarded annually to a student assistant whose contribution to the running of Olin Galleries merits special recognition.

**Outstanding Junior Psychology Majors** Recognition given to the junior students deemed by the faculty as having demonstrated outstanding academic achievement and potential for continued success in Psychology.

**Outstanding New Student In Fine Arts: Art, Art History and Archaeology, Music, and Theatre** This award is given to the most promising student new to an area of study in Fine Arts.

**Outstanding Senior in Education** The Outstanding Senior in Education exemplifies all that an educator should embody: academic excellence, a disposition that includes a passion for learning as well as a deep sense of integrity and finally a willingness to be bold and step into a challenging and dynamic field.

**Outstanding Sophomore Health and Human Performance Award: Health and Exercise Science, Sport Management** This award recognizes sophomore Health and Human Performance majors who show promise in the field through involvement in professional activities and service. To be eligible for the award, students must have completed 13 course units, be in the process of completing four courses in the major and show a high degree of achievement in their academic work. The minimum GPA requirement is 2.75. The recipient(s) receives a one-year membership to a professional organization in their field.

**Outstanding Students in Accounting, Business Administration, Business Information Systems, Economics, Finance, Global Business, Health Care Administration Concentration, Human Resource Management, and Marketing Awards** are presented annually to seniors in Business Administration and Economics who have excelled in their fields.

**Outstanding Student in African and African Diaspora Studies Concentration** Awarded for outstanding achievement in African and African Diaspora Studies concentration course work and independent research in the concentration.

**Outstanding Student in the Anthropology Concentration** Awarded for outstanding achievement in Anthropology concentration course work and independent research in the concentration.

**Outstanding Student in Chinese** Monetary prize awarded annually by the Modern Languages Department to the best and most promising student of Chinese.

**Outstanding Student in Classics and the Ancient Mediterranean World Concentration** Awarded for outstanding achievement in Classics and the Ancient Mediterranean World concentration course work and independent research in the concentration.

**Outstanding Student in the Crime, Deviance and Social Control Concentration** Awarded to the outstanding student in the Crime, Deviance and Social Control concentration.

**Outstanding Student In East Asian Studies Concentration** Awarded for outstanding achievement in East Asian Studies concentration course work and independent research in the concentration.

**Outstanding Student in French** A monetary prize awarded annually by the Modern Languages Department to the best and most promising student of French.

**Outstanding Student in Gender and Women's Studies Concentration** Awarded for outstanding achievement in Gender and Women's Studies concentration course work and independent research in the concentration.

**Outstanding Student in German** A monetary prize awarded annually by the Modern Languages Department to the best and most promising student of German.

**Outstanding Student in Italian** A monetary prize awarded annually by the Modern Languages Department to the best and most promising student of Italian.

**Outstanding Student in Japanese** A monetary prize awarded annually by the Modern Languages Department to the best and most promising student of Japanese.

**Outstanding Student in Latin** Awarded for outstanding achievement in Latin course work and independent research in this area of study.

**Outstanding Student in Latin American Concentration** Awarded for outstanding achievement in Latin American concentration course work and independent research in the concentration.

**Outstanding Student in Neuroscience Concentration** Awarded for outstanding achievement in Neuroscience course work and independent research in this area of study.

**Outstanding Students in Peace and Justice Studies Concentration** Awarded for outstanding achievement in Peace and Justice Studies concentration course work and independent research in the concentration.

**Outstanding Student in Public History** Awarded for outstanding achievement in Public History course work and independent research in this area of study.

**Outstanding Student in Russian** A monetary prize awarded annually by the Modern Languages Department to the best and most promising student of Russian.

**Outstanding Student in Screen Studies Concentration** Awarded for outstanding achievement in Screen Studies concentration course work and independent research in the concentration.

**Outstanding Student in Spanish** A monetary prize awarded annually by the Modern Languages Department to the best and most promising student of Spanish.

**Mamie S. Patterson Travel Awards - Spanish** An award given to students based on their academic achievement in the study of a modern language and their contribution to the promotion of modern language study. Awarded for use in conjunction with a May travel course.

**Dr. George G. Peery Achievement Award** An award given annually, the Peery Achievement Award was established in 1986 in honor of Dr. George Peery, former chairman of the Biology Department. The recipient, a junior or senior member of the Tri-Beta Society, is chosen by the membership of Tri-Beta and the faculty of the Biology Department on the basis of both academic achievement and, in particular, outstanding service to the Tri-Beta Society and the Biology Department. The name of the winner is inscribed on a perpetual plaque.

**Physics Outreach and Service Award** This award is given by the Physics Group to an outstanding major who has extended themselves in activities of educational outreach and service for the better of physics in the public sphere.

**Psi Chi Achievement Award** A gift given to the Psi Chi member who has best exemplified excellence in scholarship, leadership, and service. The recipient is chosen by student and faculty members of Psi Chi, the honorary society in Psychology.

**Dr. Harry E. Poindexter Award** The Dr. Harry E. Poindexter Award is given in loving memory by family and friends. Dr. Poindexter, valedictorian of the class of 1953, served as registrar of Roanoke College and was a historian. The award recognizes a full-time History major with outstanding academic achievement and is chosen by the History faculty.

**The R. Dan Richardson Award** The Department of History established this award to honor Dan Richardson and his 30 years of dedicated service to the College. The award is presented to one or more seniors who have demonstrated excellence and promise for growth in modern European history.

**The Roy H. Ritter Southern History Prize** This monetary prize is awarded annually to a junior or senior who has demonstrated academic excellence and outstanding achievement in the study of the history of the South. This award was created in memory of Roy H. Ritter, a 1926 graduate of Roanoke College. Mr. Ritter was a partner in the engineering firm of Whitman, Requardt and Associates and one of America's outstanding civil engineers. Faculty members of the History Department recommend nominees for this award to the department chair, who then makes a recommendation to the committee.

**Thomas and JoAnn Robertson Scholarship** This endowed scholarship was established by Dr. David W. Robertson and Kathryn Robertson in memory of his parents, Thomas and JoAnn Robertson, friends of Roanoke College. The scholarship is awarded annually to one or more transfer students in Business Administration who demonstrate academic excellence, good student citizenship, and financial need.

**Jeanne and Ray Robinson Endowed Prize** An annual monetary award given to an outstanding journalism student as chosen by the English faculty. This Award was established by a generous gift from Jeanne and Ray Robinson.

**Michael J. Sandridge Award for Excellence** This award honors a student teacher who demonstrates the qualities exemplified by Michael Sandridge. The annual recipient will be an individual who sees the good in every student and approaches teaching with joy, passion and strength of spirit.

**The Dr. William A. Sandridge Leadership Award** This prize is given annually in honor of Dr. William A. Sandridge and made possible by the faculty of the Business Administration and Economics Department. The recipients are selected by the Business Administration and Economics faculty from among those graduating seniors who have demonstrated outstanding leadership qualities both within the department and in the campus community.

**John D. Schumacher Endowed Chemistry Award** A monetary prize awarded to a senior upon completion of a research project, in memory of John D. Schumacher, who taught Chemistry at Roanoke College in the late 1930s and early 1940s.

**The Will Selzer Political Science Award** A monetary prize awarded annually to one or more graduating seniors majoring in Political Science who have demonstrated academic excellence and outstanding potential for continued scholarly growth.

**Frank E. Snow Memorial Award** A monetary award given to student (s) majoring in Modern Languages.

**Society of Physics Students Award** An award of a one-year membership in the Society of Physics Students which recognizes outstanding freshmen in physics.

**Dr. John Spitz Award in Business Analytics** This award was established in honor of Dr. John Spitz, who taught Economics and Quantitative Methods for 23 years. The prize is awarded annually to rising junior or senior, who has achieved excellence in Business Analytics.

**Dr. John Spitz Scholarship in Experiential Learning** This endowed scholarship was established in honor of Dr. John Spitz, who taught Economics and Quantitative Methods for 23 years. The scholarship is awarded annually to one or more Business Administration or Economics rising senior(s), who has demonstrated excellence in academics and is engaged in experiential learning.

**Undergraduate Award in Analytical Chemistry** A six-month subscription to the journal “Analytical Chemistry,” presented to the student showing the most potential for the field.

**Howard Warshawsky International Relations Award** This monetary award is presented annually to the graduating senior majoring in International Relations who has excelled in the field and attained at least a 3.0 cumulative grade point average.

**Max Weber Paper Prize** A prize awarded annually to the author of a paper judged by the department faculty to be most outstanding in its demonstration of the conceptual and/or analytical reasoning of a sociological question or problem.

**Mack Welford Award** This award recognizes an outstanding Education student who is working toward an Education minor or major, has a minimum GPA of 2.5, and has been engaged in service to the community.

**The Mary Cooper Williams Memorial Award** This award, established in memory of Mary Cooper Williams by Dr. L. Grady Cooper, Roanoke College '22, and his wife Miriam Greever Cooper, is presented annually to one or more outstanding students majoring in Religion and Philosophy, with preference given to Lutheran students who are studying for the ministry or service in the church.

**Charles C. Wise Poetry Award** An award made possible by an anonymous donor, for an original poem judged outstanding by the members of the English Department.

**Matthew M. Wise Scholarship Award** This scholarship prize was established in honor of Dr. Matthew M. Wise for his 30 years of dedicated service as a faculty member in Roanoke College’s English Department. It is used to support the senior English major who is most outstanding academically.

**Wise Walter English Scholarship** This scholarship, honoring English Professors Matthew Wise and Robert Walter, provides an award to an outstanding student in the English Department. The endowment is a gift from Dale C. and Janet V. Sarjeant, members of the Classes of 1974 and 1973.

**The Reverend Dr. Paul L. Yount Prize** A prize in money given annually in memory of The Reverend Paul L. Yount '10 to the pre-ministerial student who has shown the highest qualities of leadership.

**Zeno Contest** The Zeno Contest is a critical thinking competition sponsored annually by the Religion and Philosophy Department. A modest cash prize and an extravagant trophy are awarded to the student with the best analysis of a conceptual puzzle.

## ACADEMIC SERVICES

### Goode-Pasfield Center for Learning & Teaching

The Goode-Pasfield Center for Learning & Teaching, located in Fintel Library, offers a variety of programs designed to promote student success in the classroom and after graduation. The staff utilizes a developmental approach, recognizing that students learn best when they actively participate in making decisions about their fields of study, academic progress and future careers.

### Freshman and Undeclared Student Advising

The Director of Academic Advising alongside the Goode-Pasfield Center for Learning and Teaching coordinates academic advising for freshmen and undeclared students. Faculty and professional advisors are available for the academic and developmental advising of entering freshmen, transfer students, and all other students who have yet to declare an academic major. Advisors have a working knowledge of the Roanoke College community and guide

the student in exploring academic and professional goals. Freshman advisors are assigned to entering students during the pre-registration process by enrollment in either ROA-101 or HNRS-111.

### **Entering Freshman and Transfer Student Pre-Registration**

Entering freshmen will pre-register for Fall courses either at an on-campus summer orientation session or through a later appointment with a summer academic advisor. Transfer students will pre-register for classes by speaking with an academic advisor through email, videoconference, or over the phone. Academic advisors will be available for course advising throughout the pre-registration period. We expect that all pre-registered full-time students will attend the College's fall orientation program and will finalize the registration process at that time.

### ***The Writing Center***

The Writing Center, supervised by staff in the Goode-Pasfield Center for Learning & Teaching and located in Fintel Library, is a place where writers working in any discipline and at any level of competence meet with trained peer tutors in informal, one-on-one tutoring sessions that focus on writing. Tutors talk with writers about their academic, creative, or professional writing, helping writers at any stage of the process to do such things as brainstorm ideas, improve organization, incorporate sources into a research paper, polish the language in a poem or short story, or learn to identify and correct grammar and style problems. The Writing Center also sponsors workshops on writing-related topics.

### ***Subject Tutoring***

Subject Tutoring is located in Fintel Library and is supervised by the staff of the Goode-Pasfield Center for Learning & Teaching. Subject Tutoring was awarded international accreditation in 2010 by the College Reading and Learning Association (CRLA). Peer tutors complete an extensive training program and provide twenty-five hours of tutoring assistance before receiving certification. Drop-in tutoring and individual appointments are available to assist students with dozens of courses taught at Roanoke College.

### ***Accessible Education Services***

Accessible Education Services (AES) strives to meet the needs of students with documented disabilities in alignment with Roanoke College's commitment to providing equal access to educational opportunities for all students, in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Please visit <http://www.roanoke.edu/aes> for more information. Accessible Education Services is located within the Goode-Pasfield Center for Learning & Teaching in Fintel Library.

### ***RC Success***

The Goode-Pasfield Center for Learning & Teaching coordinates a retention program, RC Success, as an intervention for students (primarily freshmen and some sophomores) who have been placed on academic warning. The program pairs participants with individual academic coaches and includes regular attendance at a monitored study hall. Students also participate in valuable study skills workshops.

*Everyone should take advantage of the free assistance in the CLT! Knowing how to seek help and advocate for yourself are important life skills.*

### **The Place (Center for Purpose, Life, and Career Exploration)**

The mission of the PLACE (formerly known as the Office of Career Services) is to assist all Roanoke College students in defining their career and life goals and taking the necessary steps to achieve them. Whether students plan to seek full-time employment or pursue graduate school after graduating from Roanoke, PLACE provides a range of services to help them succeed including career exploration, and discovery of how college majors, minors, and concentrations relate to career interests. Alumni, parents and other friends of the College serve as mentors for students as they navigate their career journeys. To facilitate skills development, PLACE offers group and class presentations, individual appointments, and other programming designed to help students acquire specific skills necessary for future success, including resume writing, interview preparation, and job search strategies. PLACE provides many avenues for connecting students with employers for internships, part-time jobs, and full-time employment opportunities. These include special programs, and networking events with alumni. All services of this office remain available to alumni. Students should begin visiting the PLACE during their first semester on campus and continue regularly throughout their time at the College.

### **Educational Centers**

#### **Center for Church and Society**

The Roanoke College Center for Church and Society aims at bringing Christian religious and moral perspectives, particularly in their Lutheran interpretation, to bear on contemporary challenges to church and world. To further this goal, the Center encourages and supports interdisciplinary studies, faculty seminars on-campus, and cross-cultural studies off-campus, and sponsors lectures on contemporary issues as well as continuing education programs for clergy and laity.

### **Institute for Policy and Opinion Research**

The Institute for Policy and Opinion Research assists faculty members and students in conducting research projects in the local community. These projects provide students with valuable and practical first-hand experience in research design, questionnaire construction, interviewing, computer use, data analysis, and report writing.

### **Information Technology**

The Information Technology (IT) Department provides services for students, faculty, and staff; and maintains and supports campus technology infrastructure such as computers, networking, telephones, and cable television, as well as printing services. All students are provided with an account, which allows them to access course materials, grades, email, and private network storage drive. High speed wireless networks are available across campus and accessible with any device that supports the WPA enterprise standard. There are several computer labs across campus that have Microsoft Office, Mathematica, SPSS, and other academic software installed. Students, faculty and staff can access a wide variety of academic software products from anywhere through Roanoke College Remote Computing (RCRC) at [roanoke.edu/rcrc](http://roanoke.edu/rcrc).

The IT Helpdesk is located in Trexler 369 and is open Monday-Friday from 8:00 a.m. – 5:00 p.m. Call 540-375-2225 or stop in for assistance. Laptops, digital cameras, and projectors can be checked out at the Fintel Library lending services desk. The College's TV production Studio is located on the Library's lower level and is available to assist with media production. For more information, visit IT's webpage at [roanoke.edu/IT](http://roanoke.edu/IT).

### **Fintel Library**

Named in honor of Dr. Norman Fintel, eighth president of Roanoke College, and his wife, Jo, the Fintel Library offers a collection of over one million items. The facility is handicapped accessible, offers seating for over 400, includes individual and group study rooms, has a "silent study" area, a campus computer lab, and the Goode-Pasfield Center for Learning & Teaching. The Fintel Library staff strives to provide students with the very highest level of resources and service. Librarians offer tailored, curriculum-centered instruction and personalized research assistance to Roanoke College students and faculty.

More than 3,000 new items are added to the collection annually. Besides the sheer size of the collection, Fintel Library is proud to offer the latest in journals, books and multi-media materials. Among the most popular items are the Library's databases and streaming media collections, which are available 24/7 from anywhere there is an Internet connection, and its laptop loan program. In addition, the Library is also a selective depository library for United States Government Documents.

Fintel Library has a combined catalog and shares its collection with the Wyndham Robertson Library at Hollins University through a reciprocal borrowing agreement. This agreement has the effect of placing an additional 300,000 volumes in the hands of our students. A weekday courier service provides delivery within 24 hours of a request.

The Fintel Library houses the Roanoke College Archives. In addition to the historical records relating to the College, the holdings include rare books, the papers of both former Secretary of the Treasury Henry H. Fowler and former Congressman James R. Olin, and the photographs of E. Howard Hammersley.

## **ACADEMIC REGULATIONS AND PROCEDURES**

### **Advising**

Academic advisors are faculty and staff members who are available for consultation in the planning of students' academic programs and who help students make the best use of their talents and interests. Students who have

declared majors are assigned advisors in their major departments; freshmen and students who have not declared a major may be assigned a faculty advisor or an advisor from the Goode-Pasfield Center for Learning & Teaching.

Students should contact their advisors when planning their programs, when registering, and when needing advice or assistance relating to academic or professional concerns or goals. Academic advisors can assist students in reviewing academic performance, exploring possible majors and other programs, examining special educational opportunities (e.g., internships, research, international study), or planning for graduate school. Students may also obtain supplemental academic and career assistance by contacting staff in the Office of PLACE.

Although faculty and staff can provide valuable assistance and guidance for students, the ultimate responsibility for devising appropriate schedules, meeting degree and program requirements, and complying with all academic regulations belongs to the student. Therefore, students should be familiar with the College's requirements, their major(s) and other program requirements, this Catalog, and their own academic transcripts.

### **Registration, Adding, Dropping, and Withdrawing from Courses**

Students must be officially registered for their courses in order to earn academic credit. Students plan and register for courses online via their Student Planning in their Self-Service account through the Roanoke College webpage. Registration information, including dates and times, is provided by the Office of the Registrar at [www.roanoke.edu/registrar](http://www.roanoke.edu/registrar) and in Self-Service. The deadlines in this section refer to regular fall or spring terms; for shorter terms, consult the Academic Calendar on the Registrar's website.

***Adding a Course:*** The last day to add any class is the 6<sup>th</sup> full day of a regular fall or spring term.

***Dropping a Course:*** The last day to drop a course is the 10<sup>th</sup> full day of a regular fall or spring term.

***Withdrawing from a Course:*** After the 10<sup>th</sup> full day of regular fall or spring term, a student may withdraw from a course at any time up to two weeks prior to the last day of classes. Withdrawing from a course will result in a grade of "W" on a student's official transcript; however, the grade designation "W" will not be counted as a unit attempted and will therefore not affect the student's cumulative GPA. Often, withdrawing from a course is in the student's best interest and should not be viewed in a negative context.

In considering dropping or withdrawing from a course, the following financial implications should be considered:

- If a student drops a course by the end of the 10<sup>th</sup> full day of a regular fall or spring term, billing will be adjusted if the student drops below 3 full units, and financial aid will be adjusted accordingly.
- If a student withdraws from a course after the 10<sup>th</sup> full day of a regular fall or spring term, there are no changes to billing and financial aid remains intact. However, students and advisors should keep the following in mind:
  - If the student drops below 3 full units, they are still considered full-time and billed at a full-time rate but will be earning fewer than full-time units of coursework.
  - While there is no immediate effect on financial aid in future terms, there are limitations on aid, grants, and loans:
    - A student does risk taking longer to complete their program with limited financial aid opportunities.
    - Students are limited to 8 terms of institutional financial aid.
    - Federal loan eligibility is limited to 150% of their program's published length, measured in credit hours (1 unit is considered 4 credit hours). Usually this means a limit of 6 years of federal loan eligibility.
    - Federal grant eligibility is limited and case dependent. Please contact the Financial Aid Office for details.
    - Satisfactory Academic Progress requires students to maintain an academic pace of 67% by their sophomore year or they may be placed on Financial Aid warning or suspension.

- Prior to the 60% point of a regular fall or spring term, federal regulations require a return of Title IV calculation regardless of separation reason. This policy also applies to institutional aid.
- After the 60% point of a regular fall or spring term, a student has earned 100% of their financial aid so no recalculation is required.
- If at the end of a regular fall or spring term a student has earned all F's, Roanoke College must document that the student attended class past the 60% point in the term.

Medical Withdrawals: A student may withdraw from the College for medical reasons until the beginning of the examination period. All courses are removed from the academic record in cases of medical withdrawal, and billing is prorated based on the date of the medical withdrawal.

### **Auditing Courses**

Students who do not wish to receive credit for courses may enroll as auditors. Auditors are not required to take quizzes, tests, and examinations, to complete projects, or to submit papers. They are, however, required to meet the course attendance policies and to participate in class discussions.

Instructors will determine whether or not students have met these requirements and, thus, whether or not to have the notation "AU" entered on a students' transcript. Individuals outside a degree program who wish to audit must apply for and be admitted to special-student status. Students registering to audit a course must inform the Office of the Registrar no later than the end of the add period for the course by submitting the electronic "Audit Form", located on the Registrar's webpage.

### **Course Load/Overload**

The normal load of a student is eight units for each academic year. The student is expected to enroll in four units in each regular term; however, three units constitutes full-time status. A minimum of 33 academic units (including at least one unit of intensive learning), and two one-fourth units of physical education activities (or the equivalent) should be completed over a four-year period.

The College recognizes that some students must complete their study as rapidly as is consistent with sound academic standards. Students may therefore carry an academic overload commensurate with their ability.

An overload fee is charged for each full unit taken in excess of five units. Approval to enroll in six or more units requires written permission from the Assistant Vice President for Academic Operations.

Further acceleration is possible by enrolling in Intensive Learning terms (beyond the one required) and/or Summer sessions. A student may enter the College in January, June, July, or August and may complete the requirements for a degree in three regular sessions (i.e., six semesters) and three Summer sessions.

### **Academic Integrity**

Roanoke College is committed to the highest possible standards of academic integrity among all of its constituents. To promote an atmosphere conducive to a free quest for intellectual fulfillment, the administration, staff, students, and the faculty have the responsibility and the obligation to adhere to and to enforce the standards of the academic integrity policy as defined and outlined in the brochure **Academic Integrity at Roanoke College**. Students are required to make a commitment to support this policy and to work fully with the campus community in sustaining the academic integrity of Roanoke College.

There will be those individuals who violate the governing principles which this institution has adopted for the responsible and honest search for knowledge. Whether such violations are committed willfully or through negligence or ignorance, it is the duty of the institution's members to report those who are suspected of such acts. While striving to sustain a consistently high level of academic integrity, Roanoke College also strives to ensure due process to all who have been charged with academic integrity violations. No one person has the right to assume the enforcement of this policy; any person charged with a violation, as well as any bringing the charges, has the right to a full hearing.



The Academic Integrity Council consists of members of the faculty and professional staff appointed by the President, and student members elected annually by the student body. Members of the Council are chosen for Academic Integrity Panels and Academic Integrity Boards, which hear all cases involving charges of violations of academic integrity. Violations include cheating in any form, plagiarizing, lying in direct association with academic matters or during the process of an academic integrity hearing or investigation, unauthorized use of an electronic device, impeding an investigation, denying access to academic materials, or other actions that violate student regulations or public statutes for the purpose of committing or supporting an academic integrity violation.

All violations of academic integrity are viewed with gravity by the College community. Possible penalties include dropping a student from a course with a grade of “F” or “XF” (which is treated as an “F” in the computation of the grade point average), Academic Integrity Probation, Academic Integrity Suspension, and permanent expulsion from the College. The *Academic Integrity at Roanoke College* brochure should be consulted for complete details concerning the College’s academic integrity system.

It is the responsibility of each student to become familiar with the regulations and procedures of the system immediately upon enrollment. To assist students in meeting this responsibility, the brochure *Academic Integrity at Roanoke College* is made available to all entering students at orientation, and all students must pass a quiz on its contents. Questions concerning the Academic Integrity System should be addressed to Professor Sarah Hord, the chair for 2023–2024.

### **Class Attendance**

The College is committed to the principle that class attendance is a vital part of its academic program. Attendance makes possible that dialogue between student and teacher which is the foundation of the educational process. Thus, absence from class denies students access to the full measure of a college education.

Regular class attendance is expected in all courses. Individual instructors who have specific attendance requirements will state these on the syllabus distributed at the beginning of each course. Every student is accountable for all work missed because of class absence except as required by federal law. Instructors, however, are under no obligation to make special arrangements for students who are absent. A listing of mandatory events outside of stated class hours must be made available to the students before the end of the designated course Add period. If out-of-class events are added after the course Add period, alternate events or assignments must be provided for students with conflicts.

Unless prior consent for absence from the first meeting of a class is granted by the course instructor, the instructor may request that the Office of the Registrar drop an absent student from the class roster. However, it is the responsibility of the student, not the instructor or the advisor, to make sure they are enrolled in the correct schedule each term.

### **Course Changes**

Any change in a student’s course of study requires consultation with the student’s advisor. Course changes must be submitted online or to the Office of the Registrar before the deadlines stated in the Academic Calendar.

### **Examination Rescheduling**

Students are expected to take their final examination on the day and hour as specified in the Academic Calendar. Due to evening courses, however, some students have found that their final examination schedule consists of three consecutive exams. This could be morning, afternoon, and evening exams on the same day or an afternoon and evening exam on one day and a morning exam the next day. A student with such a schedule may request permission from one of the professors to reschedule the exam at the convenience of the professor. If all three professors will not reschedule, the student is urged to seek the assistance of an advisor or the Office of the Registrar.

### **Re-Examination**

A re-examination may be given only under circumstances that constitute an emergency. Approval of the instructor and the Associate Dean for Academic Affairs and Administration is required. In addition, a different examination must be given.

## Academic Credit and Classification of Students

### Advanced Placement and Credit

Roanoke College grants advanced placement (competency) and unit credit on the basis of the Advanced Placement Tests of the College Entrance Examination Board, the College Level Examination Program (CLEP), and the International Baccalaureate Higher Level Examination for courses which normally would be introductory for new students at the College. Generally, on the Advanced Placement Test, students who scores 3 will be granted competency in the equivalent Roanoke College course. Unit credit in the equivalent Roanoke College courses will be granted if a candidate scores a 4 or 5. For the International Baccalaureate Higher Level Examinations, for the equivalent Roanoke College course, students who scores a 4 will be granted competency, and unit credit will be granted if a candidate scores 5, 6, or 7. Students scoring the equivalent of a “C-” or higher on the College Level Examination Program test will receive unit credit. However, no student may accrue more than eight units of credit through Advanced Placement tests, College Level Examination Program tests, International Baccalaureate Higher Level Examinations, and/or Credit by Examination.

Military service school credit, as evaluated by the American Council on Education Guide to the evaluation of educational experiences in the armed services, may also be considered for credit, provided the coursework is appropriate to the academic curriculum of Roanoke College.

Specific information can be obtained from the Registrar.

### Competency Standards

In addition to the options described above, by meeting competency standards as described below, students are excused from taking some courses to satisfy the General Education requirements. The awarding of competency does not carry academic credit. Rather, it gives students more program flexibility by increasing their number of elective courses and allowing them to move to higher levels of study at a faster pace if they wish. If a student elects to take a course for credit after being awarded competency for that course, the competency is removed (except in foreign language where students cannot elect to repeat coursework for which they have earned competency).

**Biology** Competency may be attained in Introduction to Biology by satisfying either of the following requirements: (1) a score of 3 on the Advanced Placement Test, or (2) a score of 630 on the SAT II Test in Biology and no secondary school grade lower than a “B” or its equivalent in a biology course.

**Chemistry** Competency may be attained in Chemistry 111 by scoring in the 50th percentile or better on the ACS Exam in General Chemistry or to students who score a 3 on the Advanced Placement Test in Chemistry. For competency in advanced courses, a student must score in the 50th percentile or better on the appropriate ACS Exam.

**Foreign Language** Competency for the 101, 102 and 201 courses in a foreign language may be attained by students who earn: (1) a minimum score of 570 on the SAT II Subject Test in a foreign language or (2) a score of 3 on the appropriate language Advanced Placement Test. Academic credit at the 201 course level of a foreign language will be awarded for a score of four or five on the Advanced Placement Test. For the International Baccalaureate Higher Level Examinations, the candidate who scores a 4 will be granted competency at the 201 course level. Unit credit for the 201 course level will be granted if a candidate scores 5, 6, or 7. Competency will be determined otherwise on an individual basis by scores on an examination administered by Roanoke College faculty. Students who successfully complete the 102- or 150-level foreign language course will be awarded competency at the 101-level. Students who successfully complete the 201-level foreign language course will be awarded competency at the 101 and 102-level. (Note: Upon completion of INQ/SPAN 277, students who have also completed Spanish 102 or 150 will receive competency in Spanish 201.)

**History** Competency will be granted in History 140, Modern World, or History 200, US History by satisfying either of two requirements: (1) a score of 3 on the Advanced Placement Test, or (2) a score of 590 on the corresponding SAT II Test.

**Mathematics** Competency may be attained in Mathematics 121 (Calculus I) with a score of three on the Calculus AB Advanced Placement Test. Competency may be attained in Mathematics 121 and Mathematics 122 with a score of 3 on the Calculus BC Advanced Placement Test.

Competency for all other mathematics courses will be determined on an individual basis by considering secondary school grades, standardized test scores, and scores on examinations administered by Roanoke College.

**Physics** Competency in Introductory Physics may be attained by satisfying either of these two requirements: (1) a score of 3 on the Advanced Placement Test, or (2) a score of 650 on the SAT II Test in Physics. Competency in advanced physics courses may be determined on an individual basis upon completion of an examination administered by the department.

**Physical Education** Competency will be granted in one team sport or one individual sport through a full season of varsity intercollegiate participation.

### **Credit by Examination**

Currently enrolled and former students of the College may stand for examination in a course provided they fulfill conditions which allow such examinations. A student who has previously enrolled in, failed, audited, or unofficially attended a course may not stand for examination in it. An examination may not be given in a term when the course is offered. No more than one credit by examination may be taken during any term. Also, no student may accrue more than eight units of credit through Advanced Placement tests, International Baccalaureate Higher Level Examinations, Credit by Examination, or College Level Entrance Program tests. The approval of the instructor, the chairperson of the department offering the course, and the Registrar must be obtained. A special fee is charged and must be paid prior to taking the examination. For credit to be obtained in a given term, the examination has to be administered no later than three weeks prior to the beginning of the regularly scheduled examination period of the Fall and Spring terms or one week prior to the regularly scheduled examination period of the Summer session.

### **Transfer Credit**

Credit for academic work completed elsewhere will be accepted by official transcripts from colleges and universities accredited by one of the following accrediting organizations if the courses are appropriate to the academic curriculum of Roanoke College: Accrediting Commission for Community and Junior Colleges; Western Association of Schools and Colleges; Higher Learning Commission; Middle States Commission on Higher Education; New England Commission of Higher Education; Northwest Commission on Colleges and Universities; Southern Association of Colleges and Schools Commission on Colleges; WASC Senior College and University Commission. At least 17 of the total units required to graduate from Roanoke College (excluding Health and Human Performance 160 and Health and Human Performance activities) must be earned at Roanoke College. At least one-half of the minimum number of units required for a major must be completed at Roanoke College. After a student has registered with Roanoke College, degree credit will be granted only for elective courses and, in exceptional cases, up to a total of two units in the student's major or minor or concentration taken at another institution. Transfer credit will not be approved for courses taken to meet core requirements. Approval for courses taken in the major, minor, or concentration must be obtained in advance from the departmental chairperson and the Registrar. Approval will not be granted for courses previously failed at Roanoke College. Credit will be granted for work in which a grade of "C-" or higher has been earned; transfer grades will neither appear on the Roanoke College transcript nor be used in calculation of the cumulative or major grade point average. Exceptions to these policies may be made in extenuating circumstances as approved by the Panel on Admissions, Readmissions, and Appeals.

The College does not accept credit for nonacademic experiential learning or professional certificates. However, in cases where coursework is appropriate to the academic curriculum of the College, exceptions may be made for military service school credit, as evaluated by the American Council on Education's Guide *to the Evaluation of Educational Experiences in the Armed Services*.

Through a longstanding agreement with Hollins University, Roanoke College will grant academic credit for courses appropriate to a Roanoke College program, including grades and quality points, to those regular students who, with the approval of the appropriate advisor or departmental chairperson and the Office of the Registrar,

enroll in a course at Hollins, assuming that the course concerned is not currently available to the student through Roanoke College. The agreement applies only to fall and spring terms.

There are additional conditions and limitations on transfer credit for persons seeking a second degree. (See “The Second Bachelor’s Degree” section.)

Degree credit will not be granted to a student for courses taken at any institution when the student is in a status of expulsion from Roanoke College or when in a status of suspension or expulsion from any other college or university.

## Units and Credit for Courses

The College considers a unit the equivalent of four semester hours. This determination is based on in class and out of class workload requirements. Most regular courses carry one unit of credit, though some offer only one-half unit of credit. Research and honors projects may be taken for either one or one-half unit of credit. Applied music, music ensembles, physical education activities and theatre labs carry one-quarter unit of credit. For each one-unit course, students are expected to complete at least 12 hours of work inside and outside of class each week. Courses valued at less than one unit expect a proportionate number of hours of work.

## Classification

The classification of students is determined according to the number of units earned. Classification as a freshman means a student has earned fewer than eight units. Classification as a sophomore requires a minimum of 8 units earned; as a junior, a minimum of 16 units earned; and as a senior, a minimum of 25 units earned. The determination will be made at the end of each term.

## System of Grading

### Grades and Quality Points

Student work is graded according to the following scale:

Letter Grade	Quality Points Per Unit
A .....	4.0
A- .....	3.7
B+ .....	3.3
B .....	3.0
B- .....	2.7
C+ .....	2.3
C .....	2.0
C- .....	1.7
D+ .....	1.3
D .....	1.0
D- .....	0.7
F .....	0

Letter Grade		Quality Points Per Unit
P*	(Work passed under pass/fail)	Not Assigned
W	(Voluntary withdrawal from a course up to Two weeks prior to the last day of classes. The grade designation “W” will not be counted as a unit attempted and will therefore not affect the student’s cumulative grade point average.)	Not Assigned
WP	(Withdrawn from course passing as a result of	Not Assigned

<b>WF</b>	completely withdrawing from the College. (Withdrawn from course failing as a result of completely withdrawing from the college	0
<b>DP</b>	(Involuntarily withdrawn from course Passing by Conduct Board or faculty)	Not Assigned
<b>DF</b>	(Involuntarily withdrawn from course Failing by Conduct Board or faculty)	0
<b>XF</b>	(Dismissed from course for violation of academic integrity)	0

In addition to the above grades, the following notations are used in reporting temporary term grades, but these notations do not become a part of the student's permanent record:

**“IN”** represents incomplete and indicates that the student has not completed, for valid reason approved by the instructor, the work of the course. The incomplete work must be submitted to the instructor not later than two weeks after the beginning of the next term, including the Summer session, at which time the instructor will assign the final course grade. Grades of “IN” are not included in determining a student's grade point average. When the “IN” is converted to a permanent grade, the student's GPA will be recalculated.

**“SP”** is recorded by authorization of the Office of the Registrar for the student who is under the care of a physician at the time of the final examination or who has not completed the work of the course by reason of extended illness. Written verification by the physician is necessary to receive an “SP.” The work of the course must be completed before the end of the next term. At the beginning of each term in which a student does not enroll, the grade of “SP” must be renewed by submission of a physician's statement and be approved by the Office of the Registrar.

Students who have received either an “IN” or an “SP” and who fail to complete their work will be immediately subject to the rules of academic discipline (warning, suspension, expulsion) which would have applied when the original course should have been completed.

A student who is absent from a final examination without valid reason will receive a “zero” on the examination. If there is a valid reason for the absence, the grade of “SP” or “IN” may be given.

**“NG”** represents no grade and indicates that the instructor does not submit, at the time grades are due, a final grade. A grade of “NG” is recorded in consultation with the Office of the Registrar. An “NG” must be converted to a final grade by the end of the next term, including the Summer session.

The “WP”, DP”, WF”, and “DF” reflect the grade in the course as of the date of official withdrawal. The grade designation “WP” or “DP” will not be counted as a unit attempted and will therefore not affect the student's cumulative grade point average. A “WP” is recorded only if a student officially withdraws from the College through the Office of the Registrar. In each case that the grade designation “WF” or “DF” is assigned, the course will be considered as a unit, or partial unit, attempted and will be considered an “F” in the computation of the cumulative grade point average.

### **Grade Point Average**

The cumulative grade point average is determined by dividing the sum of the student's quality points by the sum of the units attempted, excluding grades that do not carry a unit attempted.

### **Pass/Fail Elective Option**

The primary purpose of the pass/fail elective option is to encourage students to explore an unfamiliar academic area without fear of lowering their cumulative grade point average.

In addition to internships and other courses that must be taken on a pass/fail basis, students may complete elective courses on a pass/fail basis. Pass/fail elective courses, taken on a pass/fail basis, cannot be in the same academic discipline as the major, minor or concentration nor can they be a required course for the major, minor or concentration which is outside the discipline. In addition, the course may not be one of a group from which courses may be taken to satisfy major, minor or concentration requirements. No course satisfying a core requirement may be taken on a pass/fail basis.

Courses completed on this basis may be offered as a part of the 33 units (excluding the two one quarter unit physical education activities) required for the degree, but if passed will not be used to determine the cumulative grade point average. Courses failed will be charged as courses attempted in determination of the cumulative grade point average. At least 30 of the 33 academic units used to meet degree requirements must be taken for a letter grade.

If a major, minor, or concentration is declared at some future time in an academic discipline for which a pass/fail course is part, the “pass” grade will be converted to the original grade submitted.

Students seeking a second degree may not exercise the pass/fail elective option for elective courses but may enroll in courses which must be graded on a pass/fail basis.

Special (non-degree seeking) students may exercise the pass/fail elective option but are advised not to do so in any course which they may want to apply toward core requirements, major, minor, or concentration credit should they become degree-seeking students.

Requests for pass/fail may only be submitted to the Office of the Registrar prior to, and during, the add period for the course. In order to receive a pass, a grade of D- or better must have been earned. A student may submit a written request to the Office of the Registrar no later than the last day of classes for that term to remove the pass/fail elective designation, thus reverting to having a letter grade recorded for the course. A student may enroll in only one course under the pass/fail elective option in any given semester.

### **Repeating Courses**

Students may repeat any course except for prerequisites for courses that have already been taken or are currently being taken. Such prerequisite courses may be repeated only with the approval of the department. All grades for courses will be reported on transcripts, but only the most recent grade for any given course will be used to compute the student's grade point average, with the exception of grades of “XF” which will be used in computing the grade point average. A grade of “W”, resulting from a student's withdrawal from a repeated course, will not remove a previous grade for that course, nor will courses retaken on an audit (AU) basis. Students who are no longer part of the Honors Program may use the corresponding General Education course to replace the grades from any courses from the Honors curriculum (HNRS).

Units for a repeated course that has previously been passed will be counted only once toward graduation. A student's academic standing, grade point average, and class ranking in any given semester will not be recalculated retroactively when a course is repeated in a later semester. Upon graduation, courses cannot be taken on a repeat basis. Transcripts will assign units attempted for each time a course is taken, but will mark repeated courses “R” to indicate that they are not to be assigned quality points or used in computing the grade point average.

### **Dismissal from a Course**

Students who are either suspended or expelled from a course or from the College will be assigned a final grade of either “DP” or “DF” by the course instructors as of the date of dismissal if the final examination has not been completed. The only exception would be in the course in which a student has been found responsible for an academic integrity violation and received a penalty grade of “XF.”

### **Grade Reports**

Midterm reports for all students are published using letter grades (“A,” “B,” “C,” “D,” “F”) for all courses. All midterm reports are considered advisory to the student and are not made part of the permanent record. Upon completion of Fall, Spring, Intensive Learning, and Summer terms, student grade reports are available through the Self-Service option on InsideRoanoke on the Roanoke College webpage.

### **Class Rank**

A ranking of students by class is compiled at the end of the Fall and Spring terms. It is based upon the cumulative grade point average of each student. Grades earned in non-credit courses and pass/fail courses are not considered in determining class rank (unless a pass/fail course is failed).

## **Academic Standards**

### **Academic Standing and Scholarship Requirements**

The Registrar examines and evaluates the total record of all students in May, August, and December to determine whether students shall be commended (except in August), placed on academic warning, or suspended from the College. All cumulative grade point averages are computed on the basis of all courses taken except those passed under the pass/fail option. A course failed will be charged as a course attempted. All minimum requirements that follow are stated in terms of academic credit and do not take into account courses carrying non-academic credit. Although there are advisors to assist, ultimately, it is the responsibility of the student to be correctly registered, complete the necessary course work for graduation and abide by the academic regulations of the College, as set forth by the faculty.

### **Academic Warning**

Students will be placed on academic warning if their cumulative grade point average at the end of a term is less than 1.70 for freshmen, 1.85 for sophomores, or 2.0 for juniors and seniors. Academic warning indicates that the student is not performing academically at a level sufficient for graduation. Freshmen and sophomores especially should recognize that the GPA sufficient to prevent their being placed on academic warning is lower than that required for graduation.

Students who leave the College while in a status of academic warning, although not suspended, return with the same status.

### **Academic Suspension**

Students placed on warning will be notified immediately after the Fall or Spring term. Students placed on academic warning will have two regular terms (fall or spring) in which to raise their cumulative grade point average to the required minimum for their classification at the time of evaluation (which may be different from when they were placed on warning). In addition, students must either achieve that required cumulative GPA or earn at least a 2.0 term GPA in each subsequent term of warning. Otherwise, students who do not meet the GPA requirement will be suspended for one regular term and must apply for readmission to return to the college.

Students who have served a one-term suspension and are subsequently suspended a second time will be suspended for two additional regular terms and must apply for readmission.

Students who have served two academic suspensions and subsequently fail to maintain the required GPA will be expelled from the College.

Any full-time students whose overall cumulative grade point average is less than 1.0 at the end of their first regular term will be suspended for a period of one regular term unless those students enroll in the RC Success program for their second semester. A student who accepts this option and enrolls in the RC Success program will return in a status of academic warning.

Any full-time students who fails all one-unit courses in which they are enrolled during any regular term will be suspended immediately for a period of 12 months. Students who fail all one-unit courses in their first regular term are not eligible for the RC Success Program in the next term.

Students who have been suspended and wish to return to Roanoke must follow the readmission process described in "Readmission Process for Suspended Students." Suspended students are welcome to take coursework at another accredited institution of higher education and transfer that coursework back to Roanoke College (see the section on "Transfer Credit" for details and limitations). Without prior approval from a department chair or program coordinator to allow courses to count toward a major, minor, or concentration as indicated in the "Transfer Credit" section, all coursework will transfer to Roanoke as general elective credit.

Students who are academically suspended from the College, serve their period of suspension, apply for readmission, and are granted readmission, will be subject to the rules of academic warning and suspensions, as stated in this catalog.

Students who appeal their suspension, have their appeal granted, and do not serve a period of suspension, are placed on academic warning and have until the end of their next term of enrollment to raise their grade point average to the minimum level required.

In addition to the campus post office box, all student accounts, excluding email, will be deactivated at the time of suspension and until the request to return has been approved by the Panel on Admissions, Readmissions and Appeals.

### **Appeals Process**

An appeals process is provided for students (1) notified of suspension, (2) applying for readmission, or (3) requesting a waiver of an academic rule, regulation or requirement. Appeals of academic suspension must be submitted by the deadline stated in the letter of notification (ordinarily one week). There is no time limit on applications for readmission. However, an appeal of an academic rule, regulation or requirement must be made no later than one year after the term on which the appeal is based.

The Panel on Admissions, Readmissions, and Appeals is likely to consider favorably only those appeals based on truly extenuating circumstances or that offer compelling reasons for granting the student's request. At all times the Panel attempts to balance concerns for the individual against concerns for equity.

Appeals regarding Intellectual Inquiry or Honors Program requirements must have the approval of both the director of the program and the Panel on Admissions, Readmissions, and Appeals.

Appeals are addressed to the Panel on Admissions, Readmissions, and Appeals, c/o the Office of the Registrar and are accepted in written format only. Individuals are notified of the Panel's decision once it has been made. New appeals submitted subsequent to a decision having been rendered will be heard only based on the discovery of new information which could not reasonably have been presented to the Panel at the time of the original meeting. The decision as to whether a new appeal meets this criterion will be made by the Registrar, based on the condition noted above. If the Registrar finds that new information has been discovered, the re-appeal is referred to the Vice-President/Dean of the College for a decision.

### **Readmission Process for Suspended Students**

Students placed on academic, academic integrity, or disciplinary suspensions are not automatically eligible to return after their period of suspension. Students wishing to return following a suspension must reapply at least one month prior to the beginning of the term in which re-instatement is desired. The Panel on Admissions, Readmissions, and Appeals will evaluate requests for readmissions on the basis of the following criteria:

1. The student's written statement in which (a) compelling reasons are offered for wishing to return to Roanoke College; (b) the student's activities or accomplishments during the period of suspension are described; (c) the student indicates why academic performance will be better than before the suspension;
2. Evidence of the student's ability to perform work necessary, within one academic year, to raise the GPA to the minimal level required for persistence at and graduation from Roanoke College (letters of recommendation from faculty members who can attest to the student's likelihood of success at Roanoke College will be considered by the Panel in conjunction with the student's statement);
3. Evidence of the student's likelihood of making the social adjustment necessary for persistence at and graduation from Roanoke College.

The Panel expects suspended students to pursue academic course work during their suspension. This course work will be personally beneficial and will provide the College with valuable information in the event that the student applies for readmission. It may also be transferrable as elective credit or, with permission and approval, credit toward a major, minor, or concentration (see Transfer Credit earlier in this catalog).

The Panel will evaluate requests for readmission by students in terms of criteria listed above and determine on a case-by case basis whether or not to grant readmission. Please note that only written materials are reviewed by the Panel and that individual appearances before the Panel are not permitted.

New appeals submitted subsequent to a decision having been rendered will be heard only based on the discovery of new information which could not reasonably have been presented to the Panel at the time of the original meeting.

## **PROGRAMS OF STUDY**

### **Majors, Minors, and Concentrations**

Roanoke College offers 52 majors under programs of study leading to the bachelor's degree.

#### **Bachelor of Arts (B.A.)**



Art, Art Education, Art History, Biochemistry, Biology, Biology Education, Chemistry, Chemistry Education, Communication Studies, Computer Science Education, Creative Writing, Criminal Justice, Economics, Education Studies, Engineering Science, English Education, French, French Education, Health and Exercise Science, Health and Physical Education, History, International Relations, Literary Studies, Mathematics Education, Philosophy, Physics, Physics Education, Political Science, Public Health Studies, Religious Studies, Screen Studies, Social Studies Education, Sociology, Spanish, Spanish Education, Teaching English as a Second Language (TESL), Theatre, and Theater Education.

### **Bachelor of Science (B.S.)**

Actuarial Science, Biology, Biochemistry, Chemistry, Computer Science, Data Science, Elementary Education, Engineering Science, Environmental Studies, Health and Exercise Science, Mathematics, Physics, Psychology, and Sport Management.

### **Bachelor of Business Administration (B.B.A.)**

Business Administration

### **Application for Major**

A student must apply for a major prior to classification as a junior (16 units of credit). The application is submitted electronically using a link on the Registrar's webpage. The application will be forwarded to the chairperson or program coordinator of the department in which the student plans to major. If approved, the application and the recommendation of the department are forwarded by the chairperson to the Office of the Registrar. A department may refuse a student admission to, or continuance in, a major program.

Declarations of major must be approved and on record in the Registrar's Office for all students prior to graduation. Students are advised that if they fail to take certain course before their junior year they may not be able to complete major requirements within the traditional four-year period.

In general, students are to be governed by the Catalog which is current at the time they begin their studies at Roanoke College. However, a student has the option of declaring to be under jurisdiction of a subsequent Catalog except in cases where core requirements have been changed and the College has stipulated those eligible to declare the new curriculum. Should the faculty determine that a modification in course work for a major or teacher licensure program in Education is necessary in order for students to complete a current course of study; the department reserves the right to modify degree or licensure requirements for students who have not yet formally declared a major or applied for teacher licensure.

Students transferring from a Virginia community college may elect to declare any Catalog in effect within the 24-month period immediately preceding the term they first enroll except in cases where core requirements have been changed and the College has stipulated who is eligible to declare the new curriculum.

If a student decides to drop a major after it has been formally declared, the student should inform the Office of the Registrar, using the online form, to remove the major from the student's record.

### **Minors Program**

Although all students are required to complete the requirements of a major, such is not the case for the Minors Program. The program is optional for students and for academic departments. The purpose of the program is, in part, to provide students with a broader based liberal arts background by studying a second field in some depth. Roanoke College offers 28 minors. They are:

Art  
Art History  
Biology  
Chemistry  
Communication Studies  
Computer Science  
Creative Writing  
Economics  
Elementary Education  
Environmental Studies

Foreign Politics  
French  
Health and Exercise Science  
History  
Literary Studies  
Mathematics  
Middle Education  
Philosophy  
Physics  
Political Science  
Psychology  
Public Health Studies  
Religious Studies  
Screen Studies  
Secondary Education  
Sociology  
Spanish  
Theatre

Each minor represents an organized program of study consisting of at least six units from among those which may be offered for a major. The specific requirements are selected by each department which participates in the Minors Program.

At least one-half of the minimum number of units required for a minor must be completed at Roanoke. A cumulative grade point average of at least a 2.0 is required in the minor courses taken at Roanoke. Courses used to satisfy a minor requirement may not be taken under the pass/fail option. Specific requirements for each minor are described under the appropriate academic discipline. Upon completion of all requirements for the minor, the Office of the Registrar will certify the minor field on the official transcript.

To declare a minor, a student must major in a different discipline or multi-disciplinary program. A student's intention to pursue a minor may be declared at any time, provided that there is enough time to complete all courses. The student must submit an application to the chair of the department in which the student wishes to obtain a minor using the online declaration form in the Roanoke College webpage. After approval, the chairperson forwards the application to the Office of the Registrar. With the concurrence of the Associate Dean for Academic Affairs, a department may refuse a student admission to, or continuance in, a minor program.

### **Concentrations**

In addition to the major and minor programs, the College offers students further opportunities to acquire specialized skills and knowledge useful in career development. Such a program of study is known as a concentration. Each concentration consists of prescribed pattern of course work approved by the faculty and totaling at least five units. Courses used in a concentration may not be taken under the pass-fail option. At least one-half of the minimum number of units required for concentration must be completed at Roanoke College. Successful completion of this program with a cumulative grade point average of at least 2.0 will be recognized, upon certification of the Office of the Registrar, by entry on the student's permanent academic record at the time of graduation from Roanoke College. Roanoke offers the following 34 concentrations. They are:

Accounting  
African and African Diaspora Studies  
Anthropology  
Archaeological Sciences  
Arts Management and Leadership  
Business Information Systems  
Classics & the Ancient Mediterranean World

Crime, Deviance, and Social Control  
Disability Studies  
East Asian Studies  
Finance  
Gender and Women's Studies  
German Studies  
Global Business  
Health Care Administration  
Human Development  
Human Resource Management  
Legal Studies  
Management  
Marketing  
Materials & Nanoscience  
Medicinal Chemistry  
Medieval Studies  
Middle East Studies  
Music Studies  
Neuroscience  
Parish Youth Leadership  
Peace & Justice Studies  
Public History  
Public Policy  
Publishing and Editing  
Spanish for the Global Professions & Translation  
Sports Analytics  
Statistics  
Theology

Each concentration consists of a prescribed pattern of course work approved by the faculty and totaling at least five units. A concentration may be taken only in conjunction with or in addition to a major. Courses used in a concentration may not be taken under the pass/fail option. At least one-half of the minimum number of units required for concentration must be completed at Roanoke College. The prescribed courses in a concentration must include at least three units which are not used to satisfy the student's major requirements. Successful completion of this program with a cumulative grade point average of at least 2.0 will be recognized, upon certification of the Office of the Registrar, by entry on the student's permanent academic record at the time of graduation from Roanoke College.

To declare a concentration, a student must major in a different discipline or multi-disciplinary program. A student's intention to pursue a concentration may be declared at any time, provided that there is enough time to complete all courses. The student must submit an application to the chair of the department which coordinates the concentration using the online declaration form on the Roanoke College webpage. After approval, the chairperson forwards the application to the Office of the Registrar. With the concurrence of the Associate Dean for Academic Affairs and Administration, a department may refuse a student admission to, or continuance in, a concentration.

## **Requirements for Baccalaureate Degree Programs**

### **Graduation Requirements**

To earn a bachelor's degree, the student must pass no fewer than 33 academic units (including at least one intensive learning experience) and two one-quarter unit Health and Human Performance activities (or the equivalent) for a total of 33½ units or the equivalent. At least 30 of the 33 academic units used to meet degree requirements must be taken for a letter grade.

A minimum of 17 of the academic units (excluding physical education) must be earned at Roanoke College toward the degree. If a student is granted competency for one physical education activity, the one-half unit of physical education required for graduation is reduced to one-quarter unit. The student must have a cumulative grade point average of at least 2.0 in all courses (excluding courses offered and passed on a “pass/fail” basis.) In addition, the student must meet the requirements for the Intellectual Inquiry Curriculum or the Honors Program Curriculum and for a major. The student must earn a cumulative grade point average of at least a 2.0 in all Intellectual Inquiry Courses (INQ) used to meet the Intellectual Inquiry program requirements as well as a cumulative grade point average of 2.0 in all courses used to meet the requirements of the major. When multiple courses could be used to meet a requirement, the course with the highest grade will be used. Grade point requirements for the Honors Program are described under “Honors Program” elsewhere in this Catalog. In any major, pre-requisite courses which are not themselves required for the major are not included in the major cumulative grade point average.

Since core requirements and major requirements may be completed without reaching the total of 33 ½ course units, students must elect courses to fulfill the remaining work. These elective studies may be used to satisfy areas of personal interest or professional need. Some students choose to use these subjects to qualify for additional majors, minors, or concentrations.

### **Participation in May Commencement Exercises**

The following groups of students will be invited to participate in commencement exercises held at the close of the spring term:

- a. Have completed degree requirements prior to commencement.
- b. Will, at the end of the spring term, have earned at least a 2.0 overall grade point average and at least a 2.0 major and INQ grade point average but who are lacking no more than two units of academic credit. (The students must pre-register for the outstanding course work and have made any appropriate deposits so that completion of degree requirements will occur no later than the end of the summer term for the year in question).

Beside the names of students in group b, a notation of “Anticipated August Graduate” will be included in the commencement program. An empty diploma tube will be presented to these students at Commencement. Following the completion of all degree requirements, a diploma will be ordered.

### **Declaration of Degree Candidacy**

By no later than the middle of the term preceding that term in which graduation is expected, students anticipating graduation must submit to the Office of the Registrar the electronic application for degree candidacy. Receipt of the application will initiate the preparation of a graduation review which is emailed to the student and advisor(s).

### **Residency Requirement**

Up to two of the last eight units of degree credit may be taken at another approved institution, but no more than one of the final four units may be taken at another institution. Students participating in study abroad receive a waiver. All courses taken at another institution must be approved in advance by the Registrar. Approval will not be granted for courses previously failed at Roanoke College. Credit will be granted for work in which a grade of “C-” or higher has been earned. Transfer grades will neither appear on the Roanoke College transcript nor be used in calculation of the cumulative or major grade point average. Special permission for others to waive this rule may be granted upon successful appeal to the Panel on Admissions, Readmissions, and Appeals.

### **Limitation Regulations**

Rapid changes in the content and methodologies of academic disciplines make it necessary to require that one’s program of study not be outdated by long delays in qualifying for the degree. Consequently, the College imposes certain conditions on those who fail to complete their programs within a stipulated time.

Students seeking their first bachelor’s degree are subject to the degree requirements and the academic regulations governing classification and scholarship as described in the Catalog current at the time of their first enrollment at Roanoke, provided that they qualify for a degree within 10 calendar years of the date of first enrollment. For

transfer students, the period will be dated from the earliest enrollment at an accredited institution from which transfer credit is recorded.

Students who do not qualify for the degree within the 10-year period must meet the degree requirements and be subject to academic regulations governing classification and scholarship which apply for the next year in which the student re-enrolls. Applicable requirements and regulations shall be based thereafter on those prevailing at five-year intervals.

At any time after the conclusion of the tenth year following initial enrollment, the faculty of the department of major study may review the currency of the student's program and may, with the concurrence of the Registrar, require the student to repeat certain courses or otherwise make up deficiencies.

### **After Graduation**

Upon completion of the College career, one becomes a member of the Roanoke College Alumni Association, a non-dues paying organization of Roanoke College alumni now numbering over 21,000. The Alumni Association is governed by an Executive Council which represents the geographic areas and interests of alumni (including Honor Guard, Hall of Fame, Roanoke Fund, Maroon Club and area chapters). The Alumni Executive Council President serves as an ex-officio member of the Board of Trustees and works with the Parents Council to coordinate activities and programs to promote the College.

All alumni are given the opportunity to receive the Roanoke College Magazine, may attend the Spring Alumni Weekend held on campus annually, and are invited to participate in area chapter events and activities. Alumni chapters focus on involvement of area alumni, parents, and friends in the promotion of the College through social events, admissions efforts, career networking, and development and are active in Atlanta, Baltimore, Washington, D.C., Hampton Roads, New England, New York, Philadelphia, Richmond, and the Roanoke Valley. Other events throughout the year are also held in California, Chicago, and Florida.

### **Majors and Additional Bachelor's Degrees**

The College recognizes that some individuals have a need for a broader based education than that which can be obtained through the traditional single-major, single-degree program. This circumstance is particularly true for those who wish to have highly flexible career opportunities at the time of graduation and for graduates who may wish to pursue new career directions which require additional education.

To accommodate these needs, the College offers two opportunities: (1) a single degree with more than one major, which is open only to those who are pursuing or who have earned a degree from Roanoke College, and (2) additional bachelor's degrees, which are available to graduates of Roanoke or any other regionally accredited college or university.

### **Additional Majors**

While working toward a degree within one major program, students may also complete the program of additional majors and have the achievement recorded on their permanent record and official transcripts, provided that the following conditions are met:

- ☐ All requirements for each major must be completed.
- ☐ If the majors are in different degree areas (BA, BS, B.B.A.), the student must, at the time of declaring degree candidacy, select the degree to be awarded. (More than one degrees will not be awarded.)
- ☐ A graduate of the College may subsequently earn additional majors under the conditions described above. The requirements of the additional majors shall be those set forth in the catalog for the session in which re-enrollment occurs. Transfer credit earned elsewhere after graduation may not be used to satisfy these requirements.

### **Additional Bachelor's Degrees**

Holders of a bachelor's degree from a regionally accredited college or university may earn an additional bachelor's degree by fulfilling the conditions outlined below. Note that the additional degree may be in the same degree area (BA, BS, B.B.A.) as a degree the student has already earned.

Roanoke College graduates must meet the major requirements in effect at the time of re-enrollment. Those graduates who completed General Education or Centers of Distinction requirements as part of their first degree

will not be required to complete the Intellectual Inquiry requirements. A minimum of eight units must be earned at Roanoke beyond those earned for the most recent degree. Units earned while working toward any prior degrees will not be counted as fulfilling the eight needed for the additional degree. Courses offered for prior degrees may be used to satisfy core and major requirements, provided that they were taken at the College or taken elsewhere prior to first enrollment at the College. Credit earned elsewhere after graduation will not be accepted for transfer credit toward the additional degree. If additional majors have been earned as part of any prior degree program, an additional degree will not be awarded for majors in those fields.

Graduates of other accredited institutions will be admitted as transfer students and must fulfill the core and major requirements for the degree program as set forth in the Catalog for the session in which enrollment first occurs. Transferable credit and credit earned at Roanoke must total at least 33 1/2 (or the equivalent). A minimum of 17 of these units (excluding physical education) must be earned at Roanoke after completion of the original degree. Transferable courses taken in the prior degree programs may be used to meet core requirements. No more than one-half of the minimum units required for the major may be satisfied by transfer credit.

If, in the judgment of the faculty in the major area, the earlier work of a student does not adequately cover more recent advances or needs in the field, the student may be required to repeat certain courses or otherwise make up the deficiency.

Such requirements should be established at an early date and must have the approval of the chairperson in the major field and the Office of the Registrar.

Academic requirements: All holders of a bachelor's degree will be subject to the academic requirements and regulations for seniors. Such students will not, however, be eligible for any scholastic awards or recognition except the Dean's List, President's List and honor societies. To qualify for a degree, a student must have a cumulative grade point average of at least 2.0 for all course work attempted at Roanoke College used to meet the requirements of the additional degree. A cumulative grade point average of at least 2.0 must also be attained in all major used to meet major requirements taken at Roanoke. When multiple courses could be used to meet the requirement, the course with the highest grade will be used.

Additional degree candidates may not enroll in an elective course on a pass/fail basis but may enroll in internships, which are automatically graded on that basis.

### **Baccalaureate Degree Requirements When Transferring Early Into a Graduate Program**

Roanoke College plays a major role in the undergraduate education of some students who choose to leave before graduating in order to enter a post-graduate program. Roanoke is proud of these students and will award the appropriate baccalaureate degree (B.A., B.S., or B.B.A.) to students who have satisfied or will satisfy the following guidelines:

1. The student must have been awarded an advanced degree by the transfer institution. Examples would include Ph.D., M.S., and J.D.
2. The student must not have been awarded a baccalaureate degree.
3. The student must have completed at least 17 academic units at Roanoke College, (excluding physical education) with at least a 2.0 overall grade point average and a 2.0 GPA in the major.
4. The student must have satisfied the core requirements of Roanoke College in place at the time of transferring. All substitutions or exemptions must be approved by the Academic Standards Committee.
5. The student must have completed the requirements for the major. Not more than four graduate course units may apply toward the major.
6. The student may apply not more than eight units of the graduate program toward the 33 1/2 units required by Roanoke College.
7. The department chair of the student's major and the Registrar will determine which graduate courses will be included in the student's record. In case of disagreements the Academic Standards Committee will make the final determination.

8. Upon approval by the faculty, the student will be awarded the appropriate baccalaureate degree at the next commencement.

## **Records, Transcripts and Diplomas**

### **Privacy of Student Records**

In accordance with the provisions of the Family Educational Rights and Privacy Act of 1974, the Registrar has been designated the official to receive requests for, dispense information about, and maintain records on, all students. Such records consist of admissions data and the educational record of the students while enrolled at the College. Students may inspect these records upon written request and have access to the material in accordance with the law. Such records are not only accessible to certain responsible College and administrative personnel but may be reviewed and utilized by them if necessary. Records are not released to a third party without the specific written authorization of the student.

### **Transcripts**

Any student, former student, or graduate of the College may electronically request, through the National Student Clearinghouse, a copy of their official academic transcript, provided all College bills have been paid. A fee is required for each requested transcript. Official transcripts, carrying the seal of the College, are sent to third parties, as directed by the student, in electronic or paper format. In most cases, transcripts will be issued within one week of receipt of the request.

Unofficial transcripts may be issued as well. Current students may access their unofficial transcript through Student Planning in their Colleague Self-Service account.

### **Diploma Replacement Fee**

Lost or damaged diplomas can be replaced by applying to the Registrar's Office. The replacement fee is \$45.00.

## **ACADEMIC PROGRAMS AND OPPORTUNITIES**

### **The Intellectual Inquiry Curriculum**

*Dr. Leslie Warden, Assistant Vice President for Curriculum and Advising*

The Intellectual Inquiry Curriculum flows from the Roanoke College Goals for Liberal Learning, "Freedom With Purpose". It is built around critical inquiry into questions that are important to us as individuals, citizens, and members of a global community. By engaging students in rigorous inquiry and developing abilities in communication and critical thinking across the curriculum, it furthers the college's mission of developing the skills students need to live as informed, resourceful, and responsible citizens. Combined with students' majors, it gives students the resources for building an integrated body of knowledge concerning themselves and their world.

Of the 33 ½ units required for a degree at Roanoke College, between 11 ½ and 14 ½ units are needed to fulfill the Intellectual Inquiry Curriculum requirement.

### **First Year Seminars**

The Intellectual Inquiry core courses (INQ courses) begin with two first-year seminars that introduce students to the fundamentals of liberal arts education. The first of these courses, entitled "Intellectual Inquiry," introduces students to critical thinking in higher education, taking as its starting point a focused topic in a scholarly field. Critical inquiry will be taught in the context of careful reading of important intellectual works, as well as inquiry-based writing assignments. The second course ("Living an Examined Life") is a disciplined reflection on basic questions of ethics and values, within the tradition of a particular scholarly field. Students will learn reasoning skills through reading, writing, and oral communication as they link key works with broader traditions of critical reflections on the good life for individuals and communities. Students will be encouraged to explore ways in which they can use these broader traditions for their own reflections on what it means to live well. These first-year seminars are required of all students completing the INQ curriculum.

### **Intensive Learning**

The objectives of the Intensive Learning Program are to foster intense and purposeful faculty-student interchange and to encourage thoughtful, creative exploration of a focused topic during a time when students are enrolled in one and only one course. The College provides a wide array of Intensive Learning opportunities, including travel courses as well as on-campus courses. All intensive learning courses emphasize active student participation, for example, in field study, simulations, and laboratory work. The majority of these courses are offered in May, during a three-week term. All students are required to complete at least one unit of Intensive Learning to graduate from Roanoke College.

### **The Intellectual Inquiry Perspectives Courses**

Students also take a series of courses that calls upon them to inquire into important questions using the perspectives, knowledge and methods of different ways of knowing: the Humanities and Fine Arts, the Social Sciences, and Mathematics and the Natural Sciences.

Students are required to complete three units in the Natural Sciences and Mathematics Division including at least one laboratory science course and at least one mathematics or statistics course, two units in the Social Science Division from different disciplines, and two units in the Humanities and Fine Arts Division (one each from pre- and post- 1500 time periods).

The 200-level intellectual Inquiry courses are:

#### ***Natural Sciences and Mathematics Division***

- INQ 240 Statistical Reasoning
- INQ 241 Mathematical Reasoning  
(Mathematics/Statistics/Computer Science)
- INQ 250 Scientific Reasoning I  
(Natural Science with Lab)
- INQ 251 Scientific Reasoning II  
(Natural Science with no Lab)

#### ***Social Sciences Division***

- INQ 260 Social Scientific Reasoning

#### ***Humanities and Fine Arts Division***

- INQ 270 Human Heritage I
- INQ 271 Human Heritage II

Up to three substitutions are allowed as described below. However, students applying substitutions still must take at least one INQ course in the Natural Sciences and Mathematics, one in the Social Sciences, and one in the Humanities and Fine Arts.

- ☐ A one-unit course in Mathematics or Statistics may substitute for INQ 240.
- ☐ A one-unit course in Mathematics, Statistics or Computer Science may substitute for INQ 241.
- ☐ A one-unit course in the natural sciences that includes at least 3 hrs./week of laboratory from BIOL, CHEM, ENSC, or PHYS may substitute for INQ 250.
- ☐ A one-unit course in the natural sciences with or without laboratory time from BIOL, CHEM, ENSC or PHYS may substitute for INQ 251.
- ☐ A one-unit course in Anthropology, Communication Studies, Criminal Justice, Economics, Geography, International Relations, Political Science, Psychology, Public Health Studies, Sociology, or EDUC 300, or ENST 105, may substitute for INQ 260.
- ☐ A one-unit course in Art, Art History, English, 300- or 400-level Foreign Languages literature or culture courses (NOT French 301-303, 330, 341; German 301, 335; Spanish 303, 304, 330, 335, 341, 402, 403), History, Music, Philosophy, Religion, Theatre, or ENST 103 may substitute for INQ 270 or 271. Courses substituting for 270 must primarily cover material that dates from before 1500; courses substituting for 271 must primarily cover material that dates from after 1500.

### **Global Perspective Requirement**

Global Perspective courses help students develop skills needed to navigate a globally-connected and multicultural world. Students are required to complete one unit of coursework designated as Global Perspective. Courses



satisfying this requirement are designated with a section letter containing a G. The list of available courses satisfying the Global Perspective is published on the Registrar's webpage each term.

### **The Capstone: Contemporary Issues**

Having seen ways in which different disciplines address questions, students complete the INQ courses with a required capstone seminar entitled "Contemporary Issues". The course asks them to look back on their experiences and their work in the Intellectual Inquiry Curriculum and to synthesize diverse disciplinary approaches in a collaborative investigation of a contemporary issue. In addition to individual written assignments, students will work in small groups to research and develop a proposal concerning a concept, an approach, or a solution to a contemporary problem. They will be encouraged to draw on their previous course work, pool their intellectual resources and skills working with a group, gain additional practice in conducting research and writing clearly and persuasively, and finally, will present the work in a formal oral defense.

### **Foreign Language**

Students are required to complete the study of a foreign language through the first semester of the intermediate level (through the 201-level). For most students who continue a language studied in high school, this will require one or two units at Roanoke College; for students electing to take a new language this will require three units. Students may be exempted from all or part of the requirement by demonstrating competency in a foreign language (see "Competency Standards" described elsewhere in this Catalog).

### **Health and Human Performance**

All Roanoke college students will be required to take Health and Human Performance 160: Fitness for Life (one-quarter unit) to fulfill graduation requirements. In addition, all students will take a one-quarter unit course in a lifetime sport or activity which is different from the activity taken in Health and Human Performance 160. (All varsity athletes will take Health and Human Performance 160: Fitness for Life but may receive a Health and Human Performance activity competency for satisfactorily completing one season of a varsity sport). Health and Human Performance 160 cannot be repeated for credit and it is a prerequisite for all other HHP activity courses. Once the physical education requirement for graduation has been met, a student may not complete additional Health and Human Performance activity courses for credit.

### **Teacher Licensure**

Roanoke College offers a state approved and nationally accredited four-year program designed to prepare teachers in elementary and secondary education within the requirements for the bachelor's degree and the sequence of courses within a student's academic major. The program provides the opportunity to gain teacher licensure in Virginia and approximately 46 other states through approval granted by the Commonwealth of Virginia under its National Association of State Directors of Teacher Education and Certification and the Legislative Contract Reciprocal Certification Programs.

Students who pursue licensure in elementary education must major in Elementary Education. Students seeking secondary and PK-12 content areas must major in Education within their content area (i.e. Biology Education). Securing an education advisor (preferably in the first year) is required. Students desiring to teach must plan their schedules to include specific professional education courses. Requirements for student teaching are available from the department of Education. Deviation from the established program may necessitate Summer school or additional terms of attendance.

### **Honors Program**

The Honors Program is designed for students with excellent academic performance, broad extracurricular engagement, and leadership abilities. Honors students must pass no fewer than 33 academic units (including at least one intensive learning experience) and two one-quarter unit Health and Human Performance activities (or the equivalent). To graduate with the Honors Program designation, students must also complete the honors curriculum (described below) in place of the Intellectual Inquiry curriculum, complete an Honors Distinction Project with a grade of B or higher, maintain a 3.2 grade point average overall and complete an Honors Portfolio. Credit for the Portfolio Seminar does not count toward the 33 academic units required for graduation. Students

who fail to achieve a grade point average of 3.0 in any term will be evaluated by the Honors Program Director to determine whether they may continue in the program.

Honors Program requirements include:

Four ★ Semesters of Portfolio Seminar

HNRS 111, 112 Portfolio Seminar I (1/4 unit each)

HNRS 213, 314 Portfolio Seminar II (1/4 unit each)

\*Students who enter the Honors Program after their freshman year are not required to take HNRS 111 and 112.

Two semesters of First Year Seminars

HNRS 110 Honors Seminar

HNRS 120 Living an Examined Life

Seven courses from disciplinary perspectives, which are satisfied by HNRS courses listed below. Students may also choose to substitute up to three disciplinary courses or INQ courses in place of equivalent HNRS requirements. See the catalog section on substitutions for INQ courses for equivalencies. A fourth substitution of an INQ course is allowed with permission of the Honors Program Director. However, students applying substitutions still must take at least one HNRS course in the Natural Sciences and Mathematics (HNRS 240, 241, 250, 251), one in the Social Sciences (HNRS 260), and one in the Humanities and Fine Arts (HNRS 270, 271).

HNRS 240	Statistical Reasoning
HNRS 241	Mathematical Reasoning <b>OR</b>
HNRS 251	Scientific Reasoning II
HNRS 250	Scientific Reasoning I
HNRS 260	Social Scientific Reasoning (2 units required from different disciplines)
HNRS 270	Human Heritage I
HNRS 271	Human Heritage II

The capstone course

HNRS 300 Contemporary Issues

### **Honors Distinction Project**

This requirement asks student to bring their academic, intellectual, cultural, and/or service interests to bear on a distinctive project that extends over at least two semesters. Projects may include elements of independent research, creative work, study away, internship, or service learning. Honors Distinction Projects culminate in a scholarly or creative product, and oral defense, and presentation on or off campus as appropriate. Project proposals must be approved by the Honors Program Advisory Group. Credit will vary.

In addition to those described above, Honors students must also complete these requirements:

Satisfactory completion of the Honors Portfolio

Proficiency in a foreign language through the intermediate level, LANG 202

Health and Human Performance

HHP 160 Fitness for Life (1/4 unit)

HHP activity HHP 101-159 (1/4 unit)

One unit of Intensive Learning

One unit of coursework designated as Global Perspective.

### **Experiential Learning**

*Dr. Travis Carter, Director of Experiential Learning*

At the heart of Roanoke College's mission statement is a commitment to educating students as whole persons. In pursuit of this ideal, Roanoke College offers a comprehensive program to enhance and support experiential learning opportunities. These include research, internships, study-away (Intensive Learning travel courses as well as semester- and year-long study abroad), service-learning, and creative/artistic works. Students participating in these experiences work closely with faculty in authentic, real-world contexts and are prompted to draw deliberate connections between knowledge gained through traditional modes of learning and that gained through these real-

world experiences. Through intentional planning for the experiences, critical, guided reflection during the experiences, and public showcasing at the culmination, students test and refine academic knowledge and skills, experience personal and professional growth, and are better prepared to engage productively in our common civic life. Students are encouraged to speak with their academic advisor about how to best plan for these experiences and secure funding, when available.

### **Internships, Independent Studies, and Independent Research**

Internships, independent studies, and independent research are available within most of the College's academic disciplines in order to provide students with a practical application of their particular majors or more specialized study in a particular area. Students who wish to pursue an internship, independent study or independent research should follow departmental guidelines for application. Generally, students wishing to register for independent studies, internships or independent research must make their requests known to a faculty member (the prospective supervisor) who will determine if the student meets the department's criteria for the respective experiential learning activity and then will inform the department chair.

Independent studies and research are graded with letter grades, as are Intensive Learning Internships. All other internships are graded on a pass-fail basis; students must complete a minimum of 120 hours at the internship site for each unit of credit. In addition, interns are expected to engage in critical, guided reflection and participate in meetings, showcases and other opportunities for learning as specified by the faculty supervisor or departmental requirements. Students may not earn more than three units of internship credit toward a degree.

### **Summer Scholars Program**

The Summer Scholar Program at Roanoke College is a grant program that enables qualified students to conduct intensive, independent research for eight to twelve weeks during the Summer. To qualify, a student must have a GPA of 3.0 or higher and must have completed eight units of credit by the start of the grant period. Each Summer scholar works with a faculty mentor who guides the project. Over the course of the Summer, students and mentors meet for a series of colloquia to share ideas. At the conclusion of the program, a day is set aside to showcase the work of the student scholars. In oral presentations, poster sessions, and research exhibits, they present the findings of their Summer-long research, on projects that range from polymer synthesis to the culture of bullfighting in Spain. The Summer Scholar award covers activation waiver for one unit of independent study, on campus housing, and a stipend. Information is available on the College's webpage.

### **Semester in Washington, D.C.**

*Professor Todd Peppers*

Roanoke College sponsors a one-semester program in Washington, D.C. through the Lutheran College Washington Consortium. Students live and work in the nation's capital. They take two one-unit academic courses and a two-unit internship in the office of a member of Congress, a government agency, a non-profit organization, a museum, a theater, or other challenging positions designed to meet the students' needs and interests. In addition, they participate in field trips, lectures, cultural activities, and community service.

This full semester program is available in the Fall and Spring and is open to Juniors and Seniors in most academic disciplines. During the summer, the program makes housing available for students who have secured their own internships. Information is available on campus through Dr. Todd Peppers (Department of Public Affairs, 540-375-2417, [peppers@roanoke.edu](mailto:peppers@roanoke.edu)) or Dr. Edward Hasecke, Dean and Executive Director, Lutheran College Washington Consortium (1-888-456-5292), [dean@washingtonsemester.org](mailto:dean@washingtonsemester.org).

### **Study Abroad Opportunities**

Roanoke College offers many study abroad programs that allow students to earn academic credit while studying outside the United States. Students may select from academic year, semester, Intensive Learning, or summer programs. Through the approved exchange or affiliated programs, Roanoke College provides study options around the world in all academic disciplines.

ISEP ([www.isep.org](http://www.isep.org)) offers study sites in over 50 countries where the language of instruction may be in English or a foreign language. Other exchange programs include: University of East Anglia (England), University of Bamberg (Germany), Ludwigsburg University (Germany), Universidad Publica de Navarra (Spain), Kansai Gaidai

University (Japan), Waseda University (Japan), Ewha Woman's University (South Korea), University of Ulster (Northern Ireland), Aarhus University (Denmark), and American University of Cairo (Egypt).

Roanoke College approved affiliated programs include: CEPA (France), Regent's University (England), the Umbra Institute (Italy), ISI Florence (Italy), University of Nicosia (Cyprus), James Cook University (Australia), BSoG: Brussels School of Governance (Belgium), and USAC programs in Australia (Griffith University and Deakin University) Chile, Chengdu and Shanghai (China), Costa Rica (San Ramon), England (University of Brighton), France (Pau and Lyon), India, Ireland (University College Cork), Israel (Haifa), Italy (Torino), New Zealand (Massey University), South Africa (Stellenbosch), Spain (San Sebastian, Bilbao, and Valencia), Thailand (Chiang Mai), and Uruguay.

Roanoke College is also a participating institutional member of the Virginia Summer Program at Oxford University, offering students a summer program option for study abroad.

The Intensive Learning Term offers faculty-led international travel courses in a variety of disciplines during a three-week intensive learning term each May. Recent destinations have included Palau, Uganda, Poland, Germany, Argentina, United Kingdom, Greece and France.

Two special alternative study abroad offerings are the faculty-led semester programs in Yucatan, Mexico (Spring) and Leipzig, Germany (Fall).

Roanoke College regular scholarships and grants can be applied to all of the approved exchange and affiliated programs. Students may be eligible for additional study abroad scholarships through internal and external funding sources. The Intensive Learning Travel courses and the Virginia Summer Program at Oxford also have special scholarships available.

These study abroad scholarships only apply to approved, affiliated programs. Students who wish to study abroad through unapproved, unaffiliated programs may do so under these restrictions:

1. Students must withdraw from the College.
2. No institutional or Federal aid may apply for that abroad semester.
3. Students may only transfer up to 2 units of credit towards the major, minor or concentration.
4. No general education (INQ) credit may be transferred.
5. Students do not pay the study abroad administrative fee but also do not receive administrative support from the International Office regarding the application, course transfer procedures, and overseas logistics.
6. Study abroad commencement sashes are not offered to students who participated in unapproved programs.

Students who wish to study abroad on a Roanoke College approved exchange or affiliated program must have a minimum cumulative grade point average of 2.5 at the time of application and prior to departure. Students should be aware that some of the study abroad programs require a higher grade point average than this RC minimum. Students must maintain full-time status prior to and during the term abroad.

Students must seek approval for their planned coursework in advance from their department chair and the Registrar. Before requesting such approval, students should consult with their academic advisor and the study abroad advisor for assistance with course selections. If approved courses are unexpectedly unavailable after arriving at the study abroad site, students must contact their academic and study abroad advisor immediately to seek approval for replacement courses. Alternatively, students should bring back to their department chairs or program coordinators any textbooks, syllabi, and graded coursework so that the course can be evaluated for transferability. Transfer of credit is not guaranteed for any course that has not been pre-approved; for those courses approved, students must receive a grade equivalent of "C- "or higher to receive transfer credit. Transfer grades do not appear on the Roanoke College transcript and are not included in the calculation of grade point average. Credit may be granted in the major, minor, concentration, general education, or for elective credit. Students studying abroad on an approved program will be granted a waiver of the residency requirement so that coursework can be transferred as part of the last eight units of degree credit.

Inquiries regarding any of these policies or procedures should be addressed to the Office of International Education, Morehead Hall, 2<sup>nd</sup> floor, 540-375-2068.

## **Preparation for Graduate Work**

In many professions, it becomes necessary for a student to make an academic commitment beyond the undergraduate level. It is recommended that students seek advice from their academic advisor on the selection of proper courses which will best serve them in graduate school. The PLACE and the Registrar's Office are also available for assistance.

## **Health Professions Programs**

Students planning to seek admission to medical, dental, pharmacy, veterinary school or to other health professions should plan their courses of study early. The Health Careers Advisory Board (HCAB), a group of faculty members, serves to counsel students as to required courses and steps to take in the admission process. Students should register with HCAB early in their studies at Roanoke in order to receive the greatest assistance from the committee.

Although most students preparing for further study in the health professions major in one of the sciences, it is possible to major in any field of interest, provided the minimum requirements of the program are met. Requirements of individual schools and programs vary, so it is important to check with the committee and the professional school catalog for specific requirements.

## **Pre-Law Program**

*Professor Todd Peppers, Advisor*

There is no single prescribed course of study for those preparing for a career in law. Law schools seek students who are capable of analytical reasoning and clear, crisp writing. These skills may be developed in a variety of academic majors.

The Intellectual Inquiry curriculum at Roanoke College emphasizes those skills necessary for success in law school. In addition, courses offered in political science, criminal justice, business administration, philosophy and sociology majors provide training in specific law-related areas. Critical thinking and writing are major components of courses in these fields.

Admission to law school is quite competitive. Therefore, it is important that students contact the pre-law advisor early in their academic careers. The pre-law advisor has information on law school admissions, curricula, and financial aid.

## **Pre-Ministerial Program**

*Professor Ned Wisnyske, Advisor*

The most important requirement for students heading for seminary or graduate study in religion is a broad education. The Intellectual Inquiry curriculum at Roanoke College provides that. Many majors are also useful for future training for the ordained ministry. However, it is very important to have a good grasp of the history of philosophy and at least an introduction to the various fields of religious study—sacred texts, history of religions, religion and society, and theology. The concentration in Theology is designed to provide that preparation. It is advisable for students planning to attend seminary to consult with a member of the department of Religion and Philosophy and/or the Dean of the Chapel.

## **Pre-Social Work Advising Program**

*Professor Kristi Hoffman, Advisor*

Students who are interested in pursuing careers in Social Work are well served by a broad liberal arts curriculum and focused study in the social sciences, particularly Sociology and Psychology. Successful preparation for graduate study in Social Work involves developing knowledge of societal conditions, interpersonal and group dynamics, and individual behaviors that are linked to the need for social services and therapeutic intervention. The Sociology department at Roanoke College provides specialized advising for students who would like to direct their undergraduate studies and co-curricular activities toward the helping professions. In addition, the theoretical grounding, critical thinking and social research skills that are hallmarks of the general Sociology curriculum provide a particularly useful foundation for graduate study in Social Work. Guided internships in local social service agencies are available in the department and highly recommended. Admission to many MSW programs is increasingly competitive, so students should consult with the Pre-Social Work advisor in Sociology early in their undergraduate careers.

## COURSES OF INSTRUCTION

In this section of the Catalog, majors or programs are listed alphabetically. Individual courses are listed under each heading. For purposes of administration, several majors or programs often come under a single department. Students interested in an academic major or minor should see the department chair. Students are responsible for noting and fulfilling all prerequisites for each individual course. All courses in the regular session with enrollments of five or fewer students may be canceled unless one or more of the following conditions are met:

1. At least three of the students need the course in the semester in which it is being offered in order to complete the requirements for a major.
2. The course is offered as a prerequisite for other courses in the major or concentration and cannot be rescheduled for another semester in which it might attract more students.
3. When one or two students need the course to graduate and special arrangements have not been able to be made within the department. A “required course” will be interpreted to mean not only those specifically required of all students in a major, but also those electives offered on a rotational basis when that course is the only one available in a particular semester which a student can use to satisfy major requirements.

**Department of Biology** Biology

**Department of Business Administration and Economics** Accounting; Business Administration; Business Information Systems; Economics; Finance; Global Business; Health Care Administration; Human Resource Management, Management (non-majors only); Marketing

**Department of Chemistry** Biochemistry; Chemistry; Medicinal Chemistry

**Department of Education** Art Education; Biology Education; Chemistry Education; Computer Education; Curricular Studies; Elementary Education; English Education; French Education; Health and Physical Education; Mathematics Education; Physics Education; Education Studies; Social Studies Education; Spanish Education; Teaching English as a Second Language; Teacher Licensure; Theater Education

**Department of English and Communication Studies** English; Communication Studies; Creative Writing; Literary Studies; Peace and Justice Studies; Screen Studies

**Program of Environmental Studies** Environmental Studies

**Department of Fine Arts** Art; Art History; Music; Theatre

**Department of Health and Human Performance** Health and Exercise Science; Sport Management

**Department of History** African and African Diaspora Studies; East Asian Studies; Classics and the Ancient Mediterranean World; Geography; Latin American and Caribbean Studies; History; Latin; Middle East Studies; Public History

**Department of Mathematics, Computer Science and Physics** Actuarial Science; Computer Science; Data Science; Engineering Science; Mathematics; Physics; Statistics

**Department of Modern Languages** Chinese; French; German; Italian; Japanese; Linguistics; Russian; Spanish

**Department of Psychology** Human Development; Neuroscience; Psychology

**Department of Public Affairs** American Politics; Criminal Justice; Foreign Politics; International Relations; Legal Studies; Middle East Studies; Political Science, Public Policy

**Department of Religion and Philosophy** Greek; Parish Youth Leadership; Philosophy; Religious Studies; Theology

**Department of Sociology and Public Health** Crime, Deviance, and Social Control; Gender and Women's Studies; Public Health Studies; Sociology

The listing of a course in this Catalog does not obligate the College to teach the course unless there is sufficient enrollment to justify it. Courses are subject to change without notice.

## **ACTUARIAL SCIENCE**

*Program Coordinators: Professors Roland Minton (Chair), David Taylor*

The Bachelor of Science degree with a major in actuarial science is an interdisciplinary approach to this science of risk that teaches you not only how to do actuarial science but also the underlying how and why necessary to succeed after college. The major requires the completion of 12 units of actuarial science, business, economics, mathematics, and statistics courses as follows:

### **Mathematics and Statistics**

MATH 122      Calculus II (MATH 11 prerequisite)  
STAT 220      Statistical Methods II (INQ 240 or STAT 210 prerequisite)  
STAT 301      Mathematical Statistics

### **Actuarial Science**

ACSI 201      Fundamental Techniques in Accounting and Risk  
ACSI 301      Theory of Interest

### **Business Administration and Economics**

BUAD 242      Investments  
BUAD 342      Corporate Finance  
ECON 121      Principles of Microeconomics  
ECON 321      Intermediate Microeconomics  
ECON 348      Introduction to Econometrics

### **Electives** (choose two of the following courses)

BUAD 352      Fixed Income and Derivative Securities  
BUAD 442      Finance Capstone  
ECON 227      Health Economics  
ECON 232      Money and Banking  
PHIL 223      Ethics and Medicine  
STAT 304      Applied Regression Analysis

One unit of Independent Study & Research (ACSI 406 or 405 & 407), Internship (ACSI 416), or Honors Project (ACSI 496 or 495 & 497)

Note that students interested in pursuing health-related careers should take ECON 227 and PHIL 223 as their electives, students interested in pursuing more finance-related careers should take two from BUAD 352, BUAD 442 and ECON 232 as their electives, and students interested in statistics-related careers should take STAT 304 as an elective.

The Society of Actuaries (SOA) offers a series of credentialing exams; students should talk to their advisors about taking these exams. Courses MATH 321, and STAT 301 prepare students for SOA EXAM P and courses ACSI 201 and ACSI 301 prepare students for SOA EXAM FM.

### **ACSI 201 Fundamental Techniques in Accounting and Risk Management**

This course will examine the risk management process – the way in which businesses and consumers assess, control, and transfer risk. As a primary mechanism for managing risks, insurance products will be described and analyzed regarding their design, usage, pricing, and sales strategies. In addition, the financial health of insurance providers will be examined using basic account principles and financial statement analysis. (Cross-listed as BUAD 201) (1)

Lecture: 3 hrs./wk.

### **ACSI 301 Theory of Interest**

An introduction to the mathematical theory of interest and preparation for actuary exam FM. Topics include money growth, investment return, annuities, arbitrage, interest rate sensitivity, and immunization. (1)

Lecture: 3 hrs./wk.

### **ACSI 405, 406, 407 Independent Study and Research**

Selected topics in actuarial science carried out under the direction of a faculty member. (Enrollment with the approval of the Program Coordinator and Chair of the faculty mentor's department.) (1/2, 1, 1/2)

### **ACSI 416 Internship**

Field placement providing practical experience and training in areas in which actuarial science is applied. These areas may include industry, government agencies, insurance companies, and a variety of private enterprises. (1) 120 hours on site.

*Prerequisite: Permission.*

### **ACSI 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. (1/2, 1, 1/2)

*Prerequisite: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year, must work under the guidance of a committee of three faculty members. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. ACSI 495 Honors Project is prerequisite for ACSI 497 Honors Project.*

## **AFRICAN AND AFRICAN DIASPORA STUDIES CONCENTRATION**

*Associate Professor Jesse Bucher, Coordinator*

Students in any major interested in developing a specialization in Africa or the African Diaspora may earn a concentration in African and African Diaspora Studies by successfully completing (with a cumulative grade point average of at least 2.0) at least six units. Of these, one unit must be a language, two units must be from the list of core courses, two units must be from the list of electives, and one unit must be a capstone Independent Study or Internship approved by the concentration's coordinator.

Students may count courses from the list of core courses as electives. Special topics courses, Internships, IL Courses, Intellectual Inquiry and Honors courses may apply toward the concentration when applicable and with the permission of the concentration coordinator. Of the six units of study, four must be classroom based.

Any course listing that is followed by “★” must be approved by the concentration coordinator.

### **Language (1 Unit)**

Choose from:

SPAN 201	Intermediate Spanish I
SPAN 202	Intermediate Spanish II
SPAN 303	Spanish for Written Expression
SPAN 304	Spanish for Oral Communication
SPAN 306	Spanish as a Heritage Language
FREN 201	Intermediate French I
FREN 202	Intermediate French II
FREN 301	French Conversation II
FREN 302	French Composition OR FREN 330 Studies in French Translation
GRMM 201	Intermediate German I
GRMN 202	Intermediate German II
GRMN 301	German Composition and Conversation

[Students may substitute an African language taken off-campus with approval from the concentration coordinator]



**Core Courses (2 Units)**

Choose from:

ENGL 310	Literatures of the African Diaspora
HIST 208	Archaeology of Slavery
HIST 210	Environmental History
HIST 254	Africa from 1850
HIST 255	South Africa
HIST 256	Black Political Thought in Africa and the African Diaspora
HIST 350	Issues in Africa
HIST 490	Research Seminar ★
I.R./POLI 224	Comparative Political Systems: Africa
SOCI 224	Race and Ethnicity

**Electives (2 Units)**

Choose from:

ANTH 240	Race and Human Evolution
ENGL 260	World Literature ★
ENGL 302	Southern Literature
HIST 207	American Material Culture
HIST 272	Latin America
HIST 370	Issues in Modern America ★
FREN 315	Francophone Societies
I.R./POLI 352	Human Rights Policy
RELG 130	Living Religions of the World
SOCI 338	Women's Lives Around the World
SPAN 312	Latin America and its Native and Hybrid Cultures
SPAN 323	Literary Perspectives: Latin America

**Independent Study or Internship (1 Unit)**

Choose from:

- An Independent Study focused on Africa and/or the African Diaspora ★  
 An Internship relevant to Africa and/or the African Diaspora ★

**ANTHROPOLOGY***Professor Whitney Leeson and Associate Professor Chad Morris, Coordinators*

A major in Anthropology is not offered. A concentration in Anthropology offers students the opportunity to study human beings around the globe using a comparative and holistic framework. In this interdisciplinary concentration, students will develop a recognition of global and historical cultural diversity that will be beneficial in careers that value cross-cultural communication, including business, the arts, education, public policy, and social services. Students in the anthropology concentration will systematically explore the extraordinary range of similarities and differences in humans and human behavior across time and space. Students from any major may graduate with a concentration in Anthropology by successfully completing at least six units from the classes described below and earning a cumulative grade point average of at least 2.0. Of these six units, one must be ANTH 101, Introduction to Cultural Anthropology, which the coordinators recommend taking as early as possible. Of the remaining five units at least one must come from Anthropology's other subfields of archaeology (ANTH 218), linguistics (ANTH 320), or physical anthropology (ANTH 240). Additionally, at least one course must include a fieldwork experience, chosen from ANTH 310, ANTH 380, ANTH 406, ANTH 416, SOCI 351, or another approved course. At least three courses in the concentration must be completed at Roanoke College.

**Required Courses:**

ANTH 101 Introduction to Cultural Anthropology, along with at least one course from both the subfield and fieldwork categories.

**Subfield Category:**

ANTH 218	Introduction to Archaeology (cross-listed as ARTH 218/HIST 218)
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ANTH 240	Race and Human Evolution
ANTH 320	Basic Linguistics (cross-listed as ENGL 320/LING 320)
<b><u>Fieldwork Category:</u></b>	
ANTH 310	Ethnography
ANTH 380	Creating Community Change: Applied Anthropology
ANTH 416	Internship
SOCI 351	Qualitative Methods and Analysis
Any approved IL or other course with a substantial anthropological fieldwork component	
<b><u>Elective Courses:</u></b>	
ANTH 202	Global Health and Culture (cross-listed as PHST 202/SOCI 202)
ANTH 212	Food and Culture
ANTH 218	Introduction to Archaeology (cross-listed as ARTH 218/HIST 218)
ANTH 240	Race and Human Evolution
ANTH 261	Selected Topics in Anthropology
ANTH 310	Ethnography
ANTH 320	Basic Linguistics (cross-listed as ENGL 320/LING 320)
ANTH 361	Selected Topics in Anthropology
ANTH 380	Creating Community Change: Applied Anthropology
ANTH 405/6/7	Independent Study
ANTH 416	Internship
ARTH 220	Ancient Egyptian Art and Archaeology
ARTH 222	Archaeology of Death in the Ancient Near East
ARTH 224	Encyclopedic Museum and Archaeological Ethics
HIST 206	Historical Archaeology
MUSC 240	Music in Culture
ANTH 275	Public Health and Social Justice (cross-listed as PHST 275/SOCI 275)
SOCI 329	Global Perspectives on Family
SOCI 337	Environmental Sociology

An internship or independent study focused on an anthropological topic is encouraged; the topic must be approved by the concentration coordinators. Interested students should contact the concentration coordinators as soon as possible for help in identifying additional appropriate courses available on campus (including special topics, INQ, and INQ-IL courses) or through study away programs.

### **ANTH 101 Introduction to Cultural Anthropology**

An introduction to the concepts and methods used by anthropologists to study human societies and cultures. Case studies from primarily non-Western cultures will provide an overview of the culture concept and its relationship to institutions of kinship, marriage, gender, language, race and ethnicity, production, exchange, political organization, magic, religion, and the arts. This course is required for the Anthropology concentration and is an elective in the Sociology major and minor programs. (1)

Lecture: 3 hrs./wk.

### **ANTH 202 Global Health and Culture**

This course uses anthropology, sociology and public health to provide an introduction to global health. The primary course goal is to gain a strong understanding of how multiple cultural, social, economic, environmental and political factors affect health differently in different parts of the world. You will learn about interventions to help people around the world live longer, healthier lives. (1) (Cross listed with PHST 202 and SOCI 202)

Lecture: 3 hrs./wk.

### **ANTH 212 Food and Culture**

The consumption of food is not merely a human biological need, but also a means of defining ourselves according to culture. To understand what and how a people eat is to understand part of the history and values of that group. This course will explore the production, distribution, and consumption of food in different human societies, examining the influential role food has played in human governance, economy, spiritual belief, and gender roles. We'll also examine modern foodways, paying careful attention to issues of identity, food security, and globalized food production. Finally, we'll focus on our own foodways, examining the rise of "nutritionism" in the United

States, along with its implications for our health, economy, and, of course, culture. This course is an elective in the Sociology major and minor programs. (1).

Lecture: 3 hrs./wk.

*Prerequisite: ANTH 101, INQ 260AN, or permission.*

### **ANTH 218 Introduction to Archaeology**

An introduction to the various theories of excavation and survey techniques, culture change, dating methods, and reconstruction of economic, social and religious practices or prehistoric societies. Case studies focus on both old- and new-world cultures. (Cross-listed as ARTH 218/ HIST 218). (1)

Lecture: 3 hrs./wk.

### **ANTH 240 Race and Human Evolution**

The goal of this course is to create a broad understanding of the human existence from a biological standpoint: Where did we come from? How can the physical differences between us be explained? This introduction to the basic concepts of physical/biological anthropology discusses scientific theories of human evolution and biodiversity alongside detailed discussion of the cultural origins of human racial classifications. Topics covered include basic genetic and evolutionary theory, human biological adaptation, primate evolution and behavior, fossil and other evidence of human evolution, the inherent fallacy associated with biologically-driven racial classification, and the history of “race” as a concept in popular and academic discourse. This course is designed to be accessible to both non-science and science majors. (1)

Lecture: 3 hrs./wk.

### **ANTH 261 Selected Topics in Anthropology**

An examination of special topics in anthropology, with topics selected on the basis of faculty and student interest. (1)

Lecture: 3 hrs./wk.

### **ANTH 275 Public Health & Social Justice**

This course will explore questions of public health and social justice with an emphasis on health equity given ongoing evidence of disparities rooted in the social world. We will carefully consider the notion of justice and how concerns about just distribution may be elided in a strongly individualistic culture. (1) (Cross-listed with PHST 202 and SOCI 202)

Lecture: 3 hrs./wk.

### **ANTH 310 Ethnography**

Ethnography is anthropology’s hallmark methodology; a dynamic way of seeing and living in the world of the other. This is a project-intensive course examining the ways in which anthropologists conduct ethnographic research and write ethnography. Students will practice a variety of ethnographic fieldwork techniques including, but not limited to, participant observation, field note-taking, interviewing, mapping, photography, and film production. We will examine a few key ethnographic works, several anthropologists’ reflections on the practice of ethnography, and a variety of analytic and interpretive approaches to the production of ethnography. This course is an elective in the Sociology major and minor programs. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ANTH 101, INQ 260AN, ENST 105, or permission.*

### **ANTH 320 Basic Linguistics**

The scientific study and description of language according to the principles of modern linguistics. (Cross-listed as ENGL 320/ LING 320) (1)

Lecture: 3 hrs./wk.

### **ANTH 361 Selected Topics in Anthropology**

An examination of special topics in anthropology, with topics selected on the basis of faculty and student interest. (1)

Lecture: 3 hrs./wk.

### **ANTH 380 Creating Community Change: Applied Anthropology**

How can the anthropological worldview be used to improve the lives of individuals and communities? Why do some development programs work, while others fail? The purpose of this course is to allow you to recognize the role of culture in contemporary human problems, and to use this recognition to identify means of creating positive, sustainable, and minimally biased change. The course will include overviews of the history of applied anthropology and of the current state of the field in several different domains of application, including health, the environment, business, and education. Importantly, the course will also contain considerable discussion of the ethical quandaries inherent in applied work. Finally, the course includes an active community research component, which is designed to provide some field experience in applying course material. As such, you will be exposed to some training in the anthropological methods of participant observation and interviewing. This course is an elective in the Sociology major and minor programs. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ANTH 101, INQ 260AN, ENST 105, or permission.*

### **ANTH 405, 406, 407 Independent Study**

A supervised research project or extensive literature review. (1/2, 1, 1/2)

*Prerequisite: Approved written proposal.*

### **ANTH 416 Internship**

Practical experience in a community or field setting in which anthropology is applied. This course will be an elective within the Anthropology concentration. (1)

*Prerequisite: Approved written proposal.*

## **ARCHAEOLOGICAL SCIENCES**

*Associate Professor Warden (Coordinator)*

Students from any major interested in developing a specialization in Archaeological Sciences may earn a concentration by successfully completing (with a cumulative grade point average of at least 2.0) at least six academic units from the list below. The concentration culminates in an independent study project in any discipline within the concentration (Art History, Biology, Chemistry, Computer Science, Environmental Sciences, History) but focusing on the archaeological sciences. This project must be approved for concentration credit by the coordinator (who will consult with affiliated faculty).

Internship and special topics courses may be used in substitution for a required course or as a science elective, with the permission and approval of the coordinator. This may include an archaeological field school. Field Schools are typically 4-6 intensive weeks, during which a student actively excavates and processes archaeological material 8+ hours a day. Currently, Roanoke College does not offer such a course. However, field schools are offered by other colleges and universities, both domestic and international, and transfer credit may be an option with approval from the concentration coordinator and the Registrar.

### ***Archaeological Data and Methods (2 units)***

ANTH/ARTH/HIST 218 Introduction to Archaeology

#### ***One unit chosen from:***

ARTH 220 Egyptian Art and Archaeology

ARTH 222 Archaeology of Death in the Ancient Near East

HIST 206 Historical Archaeology

Internship (1 unit) as approved by concentration coordinator

IL course in archaeology or with strong archaeological content, as approved by concentration coordinator (1 unit)

### ***Depth in Archaeological Sciences (2 units)***

Students must take two courses from the same scientific discipline chosen from:

BIOL 180 Exploring Diversity in Biology **AND** BIOL 190 Exploring Unity in Biology

CHEM 111 or 117 General Chemistry I and CHEM 112 **OR** CHEM 118 General Chemistry II

CPSC 120 Programming **AND** CPSC 170 Fundamentals of Computer Science **OR** DATA 170 Exploring Data

ENSC 101 Environmental Science **OR** ENSC 270 Geographic Information Systems

***Archaeological Science Elective (1 unit)***

Student must choose one additional credit at the 200-level or higher chosen from the following list and not already used to meet a requirement above. Students should be aware that many of these classes have prerequisites and should work with their advisors to plan appropriately.

ANTH 240	Race and Human Evolution
BIOL 230	Human Anatomy and Physiology I
BIOL 265	Plant Diversity
BIOL 270	Invertebrate Biology
BIOL 275	Vertebrate Biology
BIOL 280	Animal Biology
BIOL 315	Genetics
BIOL 415	Evolution
CHEM 221	Organic Chemistry
CHEM 255	Quantitative Chemical Analysis, ½ unit. (Must be combined with an additional ½ unit of research in CHEM, in discussion with department and concentration coordinator.)
CHEM 260	Descriptive Inorganic
CHEM 350	Instrumental Analysis
CPSC/DATA 350	Databases
ENSC 220	Conservation Science
ENSC 230	Critical Zone Science and Management
ENSC 270	Geographic Information Systems

***Independent Study (1 unit)***

1 unit of independent study or research with a faculty member in applying archaeological science. The project must be approved by the concentration coordinator (who will consult with affiliated faculty).

**ART**

*Associate Professor Katherine Shortridge (Chair)*

The B.A. in Art requires successful completion of 11 units:

**Core Courses** (four units)**Two units from the following:**

ART 111	Drawing I
ART 121	Painting I
ART 131	Photography I
ART 151	Basic Design

**One from the following:**

ART 171	Ceramics I
ART 181	Sculpture I

**One unit of Art History chosen from:**

ARTH 151	Art, Culture, & Society II
ARTH 276	The Arts of the United States
ARTH 286	Modern, Art and Architecture
ARTH 296	Global Contemporary Art and Architecture

**Six additional units of Art including:**

- ☐ Two 200- and 300- level courses in the same art discipline (Drawing, Painting, Photography, Printmaking, Graphic Design, Ceramics, or Sculpture)
- ☐ Four units from any art discipline, at least two of which must be above the 100-level

**One additional unit at any level chosen from ART, ARTH, or another discipline with department approval.**

### **Portfolio Review**

All students majoring in art must successfully complete a Portfolio Review. This review typically takes place in the spring of the sophomore year or fall of the junior year for transfers and is intended to address progress in the major, career direction, and preparation for upper level coursework.

### **Art Minor**

The minor in Art consists of six units. Two must be studio classes from the core and three units must be from studio art classes at the 200-level and above. The sixth unit may be any studio art course, art history course, or course from another program that has been approved by the art faculty.

### **Art Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **ART 111 Drawing I**

This course is designed to develop a fundamental understanding of drawing through various approaches, techniques, and media. Emphasis will be on building skills and knowledge through the act of drawing, working primarily from life. (1)

Lecture/Studio: 4 hrs./wk.

### **ART 121 Painting I**

Introduction to basic principles of painting: knowledge and use of media, understanding of color, composition, and form using the painting medium, and development of different styles and techniques. Emphasis will be on building skills and knowledge through the act of painting, working primarily from life. (1)

Lecture/Studio: 4 hrs./wk.

### **ART 131 Photography I**

Introduction to the theory and practice of photographic processes including camera mechanics, print production, image composition, and history of photography. (1)

Lecture/Studio: 4 hrs./wk.

*Pre-requisite: Film or digital camera.*

### **ART 151 Basic Design**

An exploration of the theory and practice of art fundamentals. Introduction to the elements of studio art, including form, line, shape, value, texture, color, space, content, and style. Emphasis on visual problem-solving, and the vocabulary of art. Computer applications in graphics introduced. (1)

Lecture/Studio: 4 hrs./wk.

### **ART 171 Ceramics I**

An introduction to clay emphasizing both hand building and throwing on the wheel; both ceramic sculpture and pottery vessels will be made. The focus is on understanding clay in both technical and creative terms. (1)

Lecture/Studio: 4 hrs./wk.

### **ART 181 Sculpture I**

An introduction to the basic ways of seeing and responding to the third dimension. The course is organized as a series of projects which approach the use of materials, the construction of forms, and the articulation of artistic concepts in a variety of ways. (1)

Lecture/Studio: 4 hrs./wk.

### **ART 191 Special Topics**

Studio experience in areas not normally offered, with the focus to be determined by the art faculty. May be repeated for credit. (1)

Lecture/Studio: 4 hrs./wk.

### **ART 211 Drawing II**

This course is designed to broaden the student's understanding of drawing through exploration of various topics which could include: development of subject matter, contemporary drawing issues, expression and representation, the human form, etc. We will work from life and imagination. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: Art 111.*

### **ART 221 Painting II**

This course is designed to broaden the student's understanding of painting, emphasizing the interconnection of style, expression, composition, media, and representation to subject matter. We will work from life and imagination. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 121.*

### **ART 231 Photography II**

Continuation of Introduction to Photography with more advanced problems and more independent outside work on the part of the student. Fundamentals of studio lighting, use of medium format camera, film processing and darkroom techniques, experimental techniques, computer imaging applications, and historical context of styles will be explored. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: Art 131 and film or digital camera.*

### **ART 241 Printmaking: Etching and Relief Methods**

Fundamentals of printmaking in the areas of etching, block printing, collagraphs, and monoprinting. Emphasis on fine art production and techniques of each art form. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 111 or ART 151 or by permission.*

### **ART 261 Graphic Design I**

Introduction to basic layout design with an emphasis on the stages of art production and computer software. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 111 or ART 151 or permission.*

### **ART 271 Ceramics II**

Studio practice in forming, firing, and glazing ceramic ware; individual instruction will be emphasized. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 171.*

### **ART 281 Sculpture II**

Further exploration of the methods and techniques of three-dimensional form. Additive, subtractive, and constructive procedures using wood, clay, stone, and metal will be emphasized. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 181.*

### **ART 291 Special Topics**

Studio experience in areas not normally offered, with the focus to be determined by the art faculty. May be repeated for credit. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: Permission.*

### **ART 311 Drawing III**

Further exploration of themes addressed in ART 211, engaged at the advanced level, with more individualized instruction. Direction of work, creative solutions, and expressive use of drawing medium emphasized; a significant amount of independent work must be produced.

Lecture/Studio: 4 hrs./wk. (1)

*Prerequisite: ART 211.*

### **ART 321 Painting III**

Further exploration of themes addressed in ART 221, engaged at the advanced level, with more individualized instruction. Direction of work, creative solutions, and expressive use of painting medium emphasized; a significant amount of independent work must be produced. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 221.*

### **ART 331 Photography III**

Advanced study of materials, techniques, and equipment in traditional and digital photography. A significant amount of mature work must be produced based on individual projects proposed by the student. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 231 and film or digital camera.*

### **ART 341 Printmaking: Silkscreening and Planographic Methods**

Fundamentals of printmaking in the areas of stencils, photo-silkscreening, computer applications, and lithography. Emphasis on fine art production and techniques of each art form. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 111 or ART 151 or permission.*

### **ART 361 Graphic Design II**

Introduction to the conceptual, artistic, and technical methods of visual communication used by different advertising media. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 261.*

### **ART 371 Ceramics III**

Advanced study of materials and techniques in ceramics. Individual instruction will be emphasized; a significant amount of independent work must be produced. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 271.*

### **ART 381 Sculpture III**

Advanced investigation of the potential of sculptural form. Additive, subtractive, constructive, and cast forms will be emphasized, and projects will be selected depending on student interest. A significant amount of independent work must be produced. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: ART 281.*

### **ART 391 Special Topics in Art**

Selected studies in specialized studio areas. May be repeated for credit. (1)

Lecture/Studio: 4 hrs./wk.

*Prerequisite: Permission.*

### **ART 405, 406, 407 Independent Study and Research**

A program of advanced intensive study and experience in art under the guidance of the art area staff. (1/2, 1, 1/2)

*Prerequisite: Completion of all coursework in the area of interest and submission of a written proposal, following departmental guidelines.*

### **ART 411 Drawing Portfolio**

Advanced level work for students who have completed the drawing sequence through the 300 level. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the



creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)  
*Prerequisite: Completion of ART 111, 211, 311 and submission of written proposal, following departmental guidelines.*

#### **ART 416 Art Internship**

Practical experience working in or with artistic organization as participant-observer, leading to the preparation of a report which describes and evaluates that organization's activities. (1)

*Prerequisite: Completion of all coursework in the area of interest and submission of a written proposal, following departmental guidelines.*

#### **ART 421 Painting Portfolio**

Advanced level work for students who have completed the painting sequence through the 300 level. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)

*Prerequisite: Completion of ART 121, 221, 321 and submission of written proposal, following departmental guidelines.*

#### **ART 431 Photography Portfolio**

Advanced level work for students who have completed the photography sequence through the 300 level. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)

*Prerequisite: Completion of ART 131, 231, 331 and submission of written proposal, following departmental guidelines.*

#### **ART 441 Printmaking Portfolio**

Advanced level work for students who have completed the two printmaking classes Art 241 and Art 341 and either Art 111 or Art 151. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)

*Prerequisite: Completion of ART 111 or 151, 241, 341 and submission of written proposal, following departmental guidelines.*

#### **ART 461 Graphic Design Portfolio**

Advanced level work for students who have completed the two graphic design classes Art 261 and Art 361 and either Art 111 or Art 151. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)

*Prerequisite: Completion of ART 111 or 151, 261, 361 and submission of written proposal, following departmental guidelines.*

#### **ART 471 Ceramics Portfolio**

Advanced level work for students who have completed the ceramics sequence through the 300 level. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)

*Prerequisite: Completion of ART 171, 271, 371 and submission of written proposal, following departmental guidelines.*

#### **ART 481 Sculpture Portfolio**

Advanced level work for students who have completed the sculpture sequence through the 300 level. It is expected that a student will incorporate the issues introduced in the previous courses. Focus will be on the creation of a self-directed body of work, visual research, advanced development of concepts using disciplinary media and techniques, and will result in a public display or presentation of work. May be repeated for credit. (1/2)  
*Prerequisite: Completion of ART 181, 281, 381 and submission of written proposal, following departmental guidelines.*

### **ART 495, 496, 497 Honors Project**

A program of independent study culminating in the public presentation of a paper or artistic creation. (1/2, 1, 1/2)

*Prerequisites: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year, must work under the guidance of a faculty committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project.*

## **ART HISTORY**

*Associate Professors Julia Sienkewicz, Leslie Warden*

The goal of Art History is to connect historical events and human experiences with visual expression. The major begins with a required 2-semester general survey and introductory archaeology course, moves to period-specific surveys, advances to specialized lecture/discussion classes within periods, and culminates in a research seminar. This sequence of courses allows students to develop their mastery of subject matter — objects, artists, and ideas — while at the same time building their skills at interpreting, assessing, and explaining that subject matter and the methodologies for its study.

Students planning to go on to graduate school are urged to study at least one foreign language (preferably German) through the intermediate level.

### **Art History Major**

A major in art history requires the completion of ten units. These include:

ARTH 150	Art, Culture, & Society I
ARTH 151	Art, Culture, & Society II
ARTH 218	Introduction to Archaeology

Three, 200-level Art History classes with one from each of the following areas: Ancient; Medieval, Renaissance, or Baroque; 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup> modern through contemporary art

Two Art History classes at or above the 300 level

ARTH 456	Research Seminar in Art History
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One elective: Electives may come from art history or from courses in another major that have been approved by the art history faculty.

One INQ or Honors course taught by ARTH faculty may count towards the ARTH major with approval of the art history faculty, who will determine the area of the major into which the course falls.

### **Art History Minor**

The minor in Art History is designed to give students a general experience of both the content and methods of art history. A minor in art history requires the completion of six units, including:

Two units from the following courses: ARTH 150/ARTH 151/ ARTH 218.

Two, 200-level Art History classes, from different areas: Ancient; Medieval, Renaissance, or Baroque; modern contemporary art.

One Art History class at or above the 300 level.

One elective: Electives may come from art history or from courses in another major that have been approved by the art history faculty.

One INQ or Honors course taught by ARTH faculty may count towards the ARTH minor with approval of the art history faculty, who will determine the area of the minor into which the course falls.

### **ARTH 150 Art, Culture, & Society I**

At a time when few people could read, human-made objects were the primary form of mass communication. Students will explore the architecture, sculpture, and painting of the ancient and medieval Mediterranean world (Ancient Near East, Egypt, Greece, Rome, and Medieval Europe) to discover how the visual arts shaped and reflected the values and concerns of different cultures. (1)

Lecture/Discussion: 3 hrs./wk.

### **ARTH 151 Art, Culture, & Society II**

The rise of an increasingly literate urban middle-class leads to great changes in the history of art, starting with the birth of the Renaissance in Italy through to the influence of popular culture in 20th-century America. Students will explore the works of major figures in the history of painting, sculpture, and architecture from circa 1400-1980 within the context of radical cultural and societal change. (1)

Lecture/Discussion: 3 hrs./wk.

### **ARTH 201 Research Practicum**

Hands-on research conducted under the direction of a faculty member. (1/4)

*Prerequisite: Permission of the instructor.*

### **ARTH 218 Introduction to Archaeology**

An introduction to the theories and methods used by archaeologists to reconstruct the cultural practices of past human societies, from religion and authority to domestic life and trade. Case studies introduce students to archaeological sites in places such as Egypt, Greece, Mesoamerica, and North America. (Cross-listed as ANTH 218/HIST 218) (1)

Lecture/Discussion: 3 hrs./wk.

### **ARTH 220 Ancient Egyptian Art and Archaeology**

This course investigates the art and archaeology of ancient Egypt from the pyramids to the iconic art of 'King Tut.' We will discuss the art of pharaohs, gods, and mortals. Art and artifacts are placed within their archaeological, social, and historic context. (1)

Lecture/Discussion: 3 hrs./wk.

### **ARTH 222 The Archaeology of Death in the Ancient Near East**

This course investigates the range of objects, paintings, and tomb types found in ancient Egypt and the ancient Near East. The study of these objects provides us with a window to living traditions and social structures. Material covered will include the Royal tombs of Ur; tomb paintings; and human sacrifice. (1)

Lecture/Discussion: 3 hrs./wk.

### **ARTH 224 The Encyclopedic Museum and Archaeological Ethics**

Encyclopedic Museums, like the Metropolitan Museum of Art or the Virginia Museum of Fine Arts, have large collections representing cultures across the globe and spanning human history. This class will look at encyclopedic museums through their Egyptian and Near Eastern collections. We will investigate how such collections are formed, the ethics of collecting archaeological materials from Egypt and the Near East, and the controversy behind several famous pieces, from the bust of Nefertiti to the Elgin Marbles. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 236 Medieval Art**

An exploration of the art produced in Europe from the 4th to the 14th centuries. The class will examine how visual culture reflects the political, social, and religious needs of different communities throughout the period. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 246 Italian Renaissance Art**

The study of Italian art from Giotto to Michelangelo. Aspects of Italian Renaissance culture and patronage will be explored in order to explain the styles and themes of the period. Where appropriate, the accomplishments of Northern Renaissance artists will be introduced. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 256 Baroque: Popes, Kings & Businessmen in 17th-century Europe**

The 17<sup>th</sup> century was a period of extraordinary change, when the political, religious, and cultural life of Europe was in upheaval. This class will examine ways that status and power were fashioned, national identity was shaped, Catholics were distinguished from Protestants, and public and private life were defined through the work of artists such as Caravaggio, Bernini, Velazquez, Rubens, Rembrandt and Vermeer. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 266 From Courtly Art through Revolution**

This course focuses on the major artists, stylistic traditions, and historical ideas of western art, architecture, and material culture from ca. 1700 through ca. 1850. Through the close study of works of art, students will be introduced to the role that art has played in engaging with national structures of power, imperial relationships, individual agency, and intellectual traditions. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 276 The Arts of the United States**

A historical and conceptual survey investigating American architecture, painting, crafts, and sculptures. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 286 Modern Art and Architecture**

This course focuses on the major artists, stylistic traditions, and historical ideas of western art, architecture, and material culture from ca. 1850 through ca. 1945. Through the close study of works of art and their contemporary theoretical texts, students will be introduced to the formal and conceptual rise of Modernism from Impressionism through abstraction. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 291 Special Topics in Art History**

Selected studies in specialized art history areas. May be repeated for credit. (1)

Lecture/Discussion: 3 hrs./wk.

*Prerequisite: Permission.*

**ARTH 296 Global Contemporary Art and Architecture**

This course focuses on the major artists, stylistic traditions, and historical ideas of art, architecture, and material culture from 1945 through present. Beginning with the advent of Abstract expressionism and progressing through current art and criticism, this course introduces students to art and its discourses in the contemporary world. Reflecting the increasingly porous and trans-national nature of the contemporary art world, this course is global in scope. (1)

Lecture/Discussion: 3 hrs./wk.

**ARTH 343 Early Netherlandish Painting**

Robert Campin, Jan van Eyck, and Rogier van der Weyden set the tone for the art of the Netherlands in the fifteenth century. This class will study each artist's oeuvre and how it reflected contemporary concerns, particularly the interrelationship between the historical context, religious life, and social standing of the artists who made the paintings and the patrons who commissioned and used them. (1)

Lecture/Discussion: 3 hrs./wk.

*Prerequisite: ARTH 150 or permission.*

**ARTH 348 Leonardo, Michelangelo, and Raphael**

In the 21<sup>st</sup> century, Leonardo, Michelangelo and Raphael are considered *the* three artistic geniuses of Italian Renaissance Art. This class will study each artist's oeuvre and how it reflected contemporary concerns, examine the interdependence of career and biography, and consider notions of genius in the study of art. (1)

Lecture/Discussion: 3 hrs./wk.

*Prerequisite: ARTH 150 or permission.*

### **ARTH 353 The Dutch Golden Age: Rembrandt and Vermeer**

Rembrandt and Vermeer are among the most popular "Old Master" painters. Exhibitions of their works and movies and books about their lives attract huge audiences. This course explores the oeuvres of these two painters, comparing what we know (and want to know) about them as art historians with how they have been seen by non-scholars in the past twenty-five years. (1)

Lecture/Discussion: 3 hrs./wk.

*Prerequisite: ARTH 150 or permission.*

### **ARTH 391 Special Topics in Art History**

Selected studies in specialized art history areas. May be repeated for credit. (1)

Lecture: hours vary.

*Prerequisite: Permission.*

### **ARTH 405, 406, 407 Independent Study and Research**

A program of advanced intensive study and experience in art history under the guidance of the art history staff. (1/2, 1, 1/2)

*Prerequisite: Permission and submission of a written proposal, following departmental guidelines.*

### **ARTH 416 Art History Internship**

Practical experience working in or with artistic organization as participant-observer, leading to the preparation of a report which describes and evaluates that organization's activities. (1)

Minimum 120 hours.

*Prerequisite: Permission and submission of a written proposal, following departmental guidelines.*

### **ARTH 420 Exhibition Practicum**

Designed for students aspiring to gallery or museum careers, this independent study course offers the opportunity to acquire real-world curatorial experience. Students will work under the guidance of the Director of Galleries to design an exhibition during the fall semester that will go on display during the spring semester. Projects may only begin in the fall semester. Students must have experience working in the Olin Galleries before they can be considered for the course. (1)

*Prerequisite: Permission.*

### **ARTH 456 Research Seminar in Art History**

A seminar approach to selected topics for advanced students. Topics vary. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **ARTH 495, 496, 497 Honors Project**

A program of independent study culminating in the public presentation of a paper. (1/2, 1, 1/2)

*Prerequisites: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year, must work under the guidance of a faculty committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project.*

## **ARTS MANAGEMENT AND LEADERSHIP CONCENTRATION**

The Arts Management and Leadership Concentration offers a foundational program designed to prepare students from any major the opportunity to develop basic knowledge and skill associated with the not-for-profit world of mission-based management and leadership in the arts and culture sector. Seven units are required. Of these seven units, five courses provide essential grounding in the field. These include four courses required of all students and a core elective selected from a set of field-related courses in a different disciplines including independent study,

internship, or practicum courses upon approval of the concentration coordinator. An additional two units of arts-related coursework covers arts-related work, one unit from each of two categories, Creative Practice and Critical Appreciation. Courses noted with a “★” have one or more pre-requisites.

**Required courses (4 units)**

AMGL 210	Introduction to Arts Management and Leadership
BUAD 205	Accounting for Decision Making
BUAD 254	Organizational Behavior and Management
BUAD 264	Foundations of Leadership (BUAD IL may substitute for 264 with approval of concentration coordinator)

**Core Elective (1 unit)**

ARTH 224	The Encyclopedic Museum and Archaeological Ethics
BUAD 210	Entrepreneurship
BUAD 233	Marketing Management
BUAD 274	Human Resource Management
BUAD 364	Team Dynamics★
HIST 205	Introduction to Public History
PUBL 201	Introduction to Publishing
Independent Study, Internship, or Practicum★ (upon approval by concentration coordinator)	

**Creative Practice (1 unit)**

Any 100- or 200-level★ art course	
CRWR 215	Creative Writing-Fiction
CRWR 216	Creative Writing-Poetry
MUSC 150	Fundamentals of Music Theory
THEA 112	Acting I
THEA 215	Voice and Diction
THEA 225	Scene Design
THEA 231	Playwriting
THEA 275	Costume Construction
THEA 325	Lighting Design★
THEA 375	Costume Design for the Stage★
Music Ensembles: MUSC 109, 111, 112, 113 (.25 credit)	
Theatre Workshops: THEA 103 (.25 credit)	

**Critical Appreciation (1 unit)**

ARTH, any course	
ENGL, any 200-level course	
FREN 420-461	
SPAN 320 or 323	
MUSC 275	Music in Culture
MUSC 275	Western Classical Music
MUSC 375	Popular Music
THEA 101	Introduction to Theatre
THEA 240	Theatre History I
THEA 241	Theatre History II
THEA 330	Modern Drama
THEA/ENGL 332 Focus: Shakespeare★	

**BIOCHEMISTRY**

*Professors Brooks Crozier, Gary Hollis, Timothy Johann (Chair and Coordinator), Christopher Lassiter, Leonard Pysh, Marilee Ramesh (Chair), Catherine Sarisky; Associate Professors William Brenzovich, Richard Keithley, Megan Steinweg; Assistant Professor Daniel Nasrallah*

Biochemistry is the study of the chemical processes of living organisms, including the molecular structures of biomolecules, their reactions (e.g. metabolism, genetic expression), and regulation of those reactions. The biochemistry curriculum at Roanoke includes substantial curricular components from both the biology and chemistry departments. Opportunities for Biochemistry graduates include graduate study in biology, chemistry, or biochemistry, employment in the biotechnology or pharmaceutical industries, or pursuit of a professional degree in a medical field.

### **The Biochemistry B.S.**

The B.S. in Biochemistry requires 12.5 units in Chemistry and Biology, including CHEM 111 or 117, 112 or 118, 221, 222, 331, 341, 342, 255(1/2), BIOL 190, 210, 315, and either 380 or 400, and

One of these two options:

A: one unit of research in either BIOL or CHEM culminating in a formal paper and oral defense, **or**

B: one additional unit chosen from CHEM courses numbered 250 or higher. CHEM 416 may not be used to fulfill this requirement.

Math 121 and 122 and two units of physics with lab are prerequisites for CHEM 331. Note that 300- and 400-level chemistry courses require completion of CHEM 222 with a C- or better.

For students with competency in CHEM 111, the units in the major decrease by one with the B.S. in Biochemistry requiring 11.5 units in chemistry and biology as enumerated above.

Biochemistry B.S. candidates may receive certification from the American Chemical Society by taking three additional chemistry courses. See the Chair of the Chemistry Department for details.

Biochemistry B.S. candidates may receive certification from the American Society for Biochemistry and Molecular Biology by completing the major requirements and passing the ASBMB assessment instrument, administered in the spring of the student's senior year. The ASBMB assessment instrument will be administered by student request in the spring of the student's senior year.

### **The Biochemistry B.A.**

The B.A. in Biochemistry requires 10.5 units in Chemistry and Biology, including CHEM 111 or 117, 112 or 118, 221, 222, 341, 342, 255 (1/2), BIOL 190, 210, 315, and

**One of these two options:**

A: one unit of research in either BIOL or CHEM culminating in a formal paper and oral defense, or

B: one additional unit from biology or chemistry, selected from the following: Biology 235, 370, 380, 400, 410, 420, or one unit of Chemistry 250 or higher. CHEM 416 may not be used to fulfill this requirement. Please note that upper level biology and chemistry courses may have additional prerequisites.

B.A. candidates must also complete two semesters of physics with lab (either PHYS 103/104 or PHYS 201/202) and one semester of calculus (MATH 121). Note that 300- and 400-level chemistry courses require completion of CHEM 222 with a C- or better.

### **Research in Biochemistry**

Biochemistry majors are strongly encouraged to do multiple semesters of research. Faculty with biochemistry research interests include Dr. Crozier, Dr. Johann, Dr. Lassiter, Dr. Pysh, Dr. Ramesh, Dr. Sarisky and Dr. Keithley.

Students considering graduate study in biochemistry or related fields should strongly consider the B.S. track, which covers many of the prerequisites required for admission into biochemical graduate programs. Other additional advanced level courses, such as a second semester of physical chemistry, instrumental analysis, or advanced biology courses such as developmental or advanced cell, may also be required.

## **BIOLOGY**

*Professors Rachel Collins, Brooks Crozier, Christopher Lassiter, DorothyBelle Poli, Leonard Pysh, Marilee Ramesh (Chair); Associate Professors Steven Powers, Megan Steinweg; Lecturers Frances Bosch, Lindy Thibodeaux*

The Biology Department offers both the Bachelor of Science (B.S.) and Bachelor of Arts (B.A.) degrees.

### **The Bachelor of Science in Biology**

Students seeking the B.S. degree must complete fifteen units of coursework in biology and allied fields.

The B.S. degree requires nine units of BIOL coursework: BIOL 110, 180, 190, 470 or 480 or 496 and five upper division courses (200-level or above), with at least two of the five chosen from Group A and at least two from Group B (listed under “Biology Theme Group Courses” below). At least three of the five upper-division courses must be at the 300-level or higher and at least three of the five must have six hours/week of lecture and Laboratory.

B.S. degree candidates must also complete CHEM 111 or 117, CHEM 112 or 118, PHYS 102, INQ/HNRS 240, and MATH 115. Completion of CHEM 111 or 117, CHEM 112 or 118, INQ/HNRS 240, and MATH 115 is required for enrollment in 300- and 400- level BIOL courses.

The final unit required for the B.S. degree may be chosen from the following Math/Science courses: any additional BIOL course (listed under “Biology Theme Group Courses” below), any additional CHEM course (200-level or above), any additional PHYS course (104 or above), any additional MATH course (121 or above), any STAT course, any CPSC course, or any ENSC course (ENSC 265 requires approval of department).

### **The Bachelor of Arts in Biology**

Students seeking the B.A. degree must complete twelve units of coursework in biology and allied fields.

The B.A. degree requires seven units of BIOL coursework: BIOL 110, 180, 190, and four upper division courses (200-level or above), with two of the four chosen from Group A and two from Group B (listed under “Biology Theme Group Courses” below). At least two of the four upper-division courses must be at the 300-level or higher and at least two of the four must have six hours/week of lecture and lab.

B.A. degree candidates must also complete CHEM 111 or 117, CHEM 112 or 118, PHYS 102, INQ/HNRS 240, and MATH 115. Completion of CHEM 111 or 117, CHEM 112 or 118, INQ/HNRS 240, and MATH 115 is required for enrollment in 300- and 400-level BIOL courses.

### **Biology Theme-Group Courses**

Theme group requirements are intended to ensure students' familiarity with the six themes on which the biology curriculum is founded while providing flexibility in tailoring their course-of-study to interest and preparation for postgraduate study or work. The Group A courses emphasize the themes of Evolution, Diversity, or Systems, while the Group B courses emphasize the themes of Information Flow, Energy and Matter Transformations, or Structure and Function Relationships. All upper-division BIOL courses will connect with all six themes to the extent and in the ways appropriate.

#### **Group A Courses**

- BIOL 205 – General Ecology
- BIOL 225 – History of Life
- BIOL 235 – Microbiology
- BIOL 240 – Algae & Fungi
- BIOL 245 – Special Topics (as determined by the department)
- BIOL 246 – Special Topics (as determined by the department)
- BIOL 265 – Plant Diversity
- BIOL 270 – Invertebrate Biology
- BIOL 275 – Vertebrate Biology
- BIOL 280 – Animal Biology
- BIOL 290 – Parasitism
- BIOL 300 – Aquatic Ecology



BIOL 320 – Systems Biology  
BIOL 330 – Community Ecology  
BIOL 335 – Biogeography & Systematics  
BIOL 340 – Animal Behavior  
BIOL 345 – Special Topics (as determined by the department)  
BIOL 346 – Special Topics (as determined by the department)  
BIOL 415 – Evolution

### **Group B Courses**

BIOL 210 – Cell Biology  
BIOL 245 – Special Topics (as determined by the department)  
BIOL 246 – Special Topics (as determined by the department)  
BIOL 260 – Human Anatomy & Physiology II  
BIOL 305 – Principles of Physiology  
BIOL 310 – Comparative Animal Physiology  
BIOL 315 – Genetics  
BIOL 345 – Special Topics (as determined by the department)  
BIOL 346 – Special Topics (as determined by the department)  
BIOL 365 – Plant Anatomy & Physiology  
BIOL 370 – Immunology  
BIOL 380 – Advanced Genetics  
BIOL 400 – Molecular Biology  
BIOL 410 – Genomics  
BIOL 420 – Developmental Biology

Each Special Topics course (BIOL 245, 246, 345, and 346) satisfies only one Theme Group requirement, as determined by the department.

Courses not listed in either group (BIOL 106, 230, 350, 355, 450) may not be counted toward either degree, except in the case of BIOL 470 or 496, either of which meets a requirement of the B.S. degree.

### **Minor in Biology**

A minor in Biology requires six units of BIOL coursework: BIOL 110, 180, 190 and three additional courses. Courses not listed in the Theme Groups (above) require Departmental approval to be counted toward the minor.

### **Biology Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **Health Professions and Graduate Study Advising**

Students pursuing graduate studies in the health professions or in the biological sciences need to be aware that programs in these areas may require additional courses beyond those required for the B.S. degree. All students – and particularly those considering these career paths – are encouraged to work with Biology Department faculty to select courses appropriate for and supportive of their career goals and should plan their schedules carefully to ensure completion of all requirements by the appropriate times. Please be aware that most upper division BIOL courses are offered on a rotating basis.

### **BIOL 106 Human Biology**

An introductory course in which the concepts and course material will be taught through the windows of the human body and modern health. The course is designed to introduce students to the basic models, methods, and theories in the field of biology and will follow the levels of organization of the biological sciences from subatomic particles to cells and tissues to development and evolution. Please note that students who have completed BIOL 105 cannot earn credit for BIOL 106. (1)

Lecture and Laboratory: 6 hrs./wk.

### **BIOL 110 Exploring Biology**

An integrated study of a contemporary topic that introduces prospective majors to central themes in the field of biology and to skills necessary for success. Each section will focus on a different topic. Topics may vary from year to year. (BIOL 110 is the foundational course for the Biology curriculum. Students intending to major in Biology should, therefore, take this course before BIOL 180 and 190, usually the Fall Semester of their first year.) (1)

Lecture and Laboratory: 3 hrs./wk.

### **BIOL 180 Exploring Diversity in Biology**

An investigation of three of six themes central to the field of biology (Evolution, Diversity, and Systems) that lays a foundation of knowledge and skills expected of students who pursue a major and career in biology. (Students should not enroll in this course before the Spring semester of their first year.) (1)

Lecture and Laboratory: 6 hrs./wk.

### **BIOL 190 Exploring Unity in Biology**

An investigation of three of six themes central to the field of biology (Information Flow, Matter and Energy Transformation, and Structure/Function Relationships) that lay a foundation of knowledge and skills expected of students who pursue a major and career in biology. (Students should not enroll in this course before the Spring semester of their first year.) (1)

Lecture: 3 hrs./wk.

### **BIOL 205 General Ecology**

Ecology is the study of the distributions and abundances of organisms. The course focuses primarily on species/environment interactions, species/species interactions, community dynamics, and ecosystem function. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 180.*

### **BIOL 210 Cell Biology**

A study of the fundamental processes that occur within eukaryotic cells, focusing on the structures and functions of the organelles, the cell cycle, and cell signaling. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 106 or 190.*

### **BIOL 225 History of Life**

An overview of current thinking on the origin and progression of life on our planet. The history of evolutionary thought will be traced from before Darwin to the Modern Synthesis. Current scientific information will be considered in a variety of topical areas, including the origin of multi-cellular life, and the paleobiology and evolutionary development of representative organismal groups, including humans. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BIOL 180.*

### **BIOL 230 Human Anatomy and Physiology I**

Structure and function of the human body at the cell and organ system levels, covering general cell structure and function, and the integumentary, skeletal, muscular, and nervous systems. (This course has a strictly enforced registration restriction with preference given to declared Health and Human Performance majors. This course may not be used to satisfy the requirements for the BS or BA in Biology and does not satisfy the “200-level BIOL course” prerequisite for 300-level BIOL courses.) (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 106 or 190.*

### **BIOL 235 General Microbiology**

The morphology, taxonomy, ecology, and economic importance of representative microorganisms, with emphasis on bacteria. Human health issues such as sexually transmitted diseases and food safety, and plant health issues will be covered. Microbiological aspects of water and soil will also be examined. Emphasis in the laboratory will be placed on proper application of microbiological techniques. (1)

Lecture and Laboratory 6 hrs./wk.

*Prerequisite: BIOL 180 or 210.*

**BIOL 245 Special Topics**

Study of a special topic in biology not regularly offered. (1)

Lecture and Laboratory: 3 hrs./wk.

*Prerequisites: BIOL 180; BIOL 190.*

**BIOL 246 Special Topics in Biology**

Study of a special topic in biology not regularly offered. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 180; BIOL 190.*

**BIOL 260 Human Anatomy and Physiology II**

Structure and function of the human body at the cell and organ system levels, covering the endocrine, digestive, respiratory, circulatory, excretory, and reproductive systems. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 230.*

**BIOL 265 Plant Diversity**

The evolutionary relationships, life histories, and field studies of bryophytes, ferns and their relatives, and vascular plants. Field trips to appreciate botanical history, farming impacts, and plant development are included. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 180.*

**BIOL 270 Invertebrate Biology**

A study of the invertebrate animals including phylogenetic relationships among the taxa and focusing on the physiology, embryology, ecology, and behavior of representative forms. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 180.*

**BIOL 275 Vertebrate Biology**

Identification, morphology, phylogeny, zoogeography, ecological physiology, and behavior of vertebrates. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 180.*

**BIOL 280 Animal Biology**

A study of the Kingdom Animalia, focusing on phylogeny, taxonomy and structure/function of representative animal types. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 180.*

**BIOL 290 Parasitism**

This course is an exploration of the characteristics and behaviors common to parasitic organisms with focus on Platyhelminthes, Nematodes, Protists, and Fungi. Parasite/Host/Vector relationships and host/parasite co-evolution will be covered. (1)

Lecture 3 hrs./wk.

*Prerequisites: BIOL 180.*

**BIOL 300 Aquatic Ecology**

Synthesis of biological, chemical, and physical factors and processes in streams and lakes. Field work and laboratory analyses of samples collected. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 180.*

**BIOL 305 Principles of Physiology**

A study of physiological principles in animals. Particular emphasis will be placed on a consideration of how function at the cellular level is integrated through the organ system levels in a variety of vertebrate animal types, with mammals serving as an important example. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 190; One 200-level BIOL course; INQ/HNRS 240.*

**BIOL 310 Comparative Animal Physiology**

A comparative study of physiology of a range of different animal types. Emphasis will be placed on how an animal's structure/function relates to where it lives in the environment and how it makes a living. (1)

Lecture 3 hrs./wk.

*Prerequisite: BIOL 180; BIOL 190; One 200-level BIOL course; INQ/HNRS 240.*

**BIOL 315 Genetics**

A study of the principles of Mendelian, population, and molecular genetics. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 190; One 200-level BIOL course; INQ-HNRS 240.*

**BIOL 320 Systems Biology**

Energy and nutrient movement on earth fluctuate due to natural and human induced changes. This course takes a holistic approach to understanding how these transformations influence biological processes on land, oceans, and the atmosphere. The nature of this course utilizes quantitative reasoning and tools from other of scientific disciplines. (1)

Lecture 3 hrs./wk.

*Prerequisite: BIOL 180; BIOL 190; INQ/HNRS 240.*

**BIOL 330 Community Ecology**

An exploration of the causes of biological diversity in communities and how diversity and species interactions produce emergent properties that form ecosystem functions. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 180; One 200-level BIOL course; MATH 115 or higher.*

**BIOL 335 Biogeography & Systematics**

This course will examine the distribution, origin, and phylogenetic relationships of extant living organisms. The techniques of morphological and molecular phylogenetics will be used to discover speciation events and evolutionary relationships. The biotic and abiotic factors that influence speciation and distribution will also be critically evaluated. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BIOL 180.*

**BIOL 340 Animal Behavior**

An exploration of fundamental principles and processes of animal behavior related to survival, feeding, signaling and communication, group formation, mate choice, kinship, and cooperation. We will take evolutionary and ecological approaches to understand the proximate and ultimate mechanisms controlling behavior in nonhuman animals and will explore how animal behavior research is conducted. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BIOL 180; One 200-level BIOL course; MATH 115 or higher.*

**BIOL 345 Special Topics in Biology**

Study of a special topic in biology not regularly offered. (1)

Lecture and Laboratory: 3 hrs./wk.

*Prerequisite: BIOL 180; BIOL 190; One 200-level BIOL course; INQ/HNRS 240.*

**BIOL 346 Special Topics in Biology**

A study of a special topic in biology not regularly offered. This course has a required laboratory component. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 180; BIOL 190; One 200-level BIOL course; INQ/HNRS 240.*

**BIOL 350 Student Research**

Research conducted under the supervision of a member of the department. (1)

*Prerequisite: Permission.*

*Open to majors and minors with permission of the Department.*

**BIOL 355 Student Research**

Research conducted under the supervision of a member of the department. 1/2)

*Prerequisite: Permission.*

*Open to majors and minors with permission of the Department.*

**BIOL 365 Plant Anatomy and Physiology**

Cellular, tissue, and organ anatomy of conifers and flowering plants will be studied in detail leading to advanced work in tissue culture, hormonal and light influenced growth responses. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 180; BIOL 190; One 200-level BIOL course; CHEM 112 or 118; INQ/HNRS 240.*

**BIOL 370 Immunology**

An overview of the field of immunology, from the molecular to organ levels. The relationships among the immune system, health, and disease will be explored. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BIOL 210.*

**BIOL 380 Advanced Genetics**

A study of the eukaryotic genome with particular reference to chromosome structure and function. (1)

Lecture and Laboratory 6 hrs./wk.

*Prerequisite: BIOL 315.*

**BIOL 400 Molecular Biology**

A detailed analysis of information flow from DNA to RNA to protein, with emphasis on both prokaryotic and eukaryotic gene regulation. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisites: BIOL 315.*

**BIOL 415 Evolution**

A study of the mechanisms that give rise to biological diversity, from the molecular to the ecological. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BIOL 315; CHEM 112 or 118; MATH 115 or higher.*

**BIOL 420 Developmental Biology**

An examination of embryonic development at the molecular and cellular levels. Topics will include genetic control of developmental processes, cell-cell signaling, and the molecular basis of differentiation and pattern formation. Examples from vertebrate, invertebrate, and plant systems will be used. (1)

Lecture and Laboratory: 6 hrs./wk.

*Prerequisite: BIOL 210 or BIOL 315.*

**BIOL 450 Internship**

Work experience in a field of professional biology under the guidance of a member of the biology faculty. (May not be counted as one of the required courses for the Biology major.) (1)

*Prerequisite: BIOL 180; BIOL 190; permission.*

**BIOL 460 Senior Research**

Research conducted under the supervision of a member of the department. (1)

*Prerequisites: Senior Standing.*

**BIOL 470 Senior Thesis**

Written summary and oral presentation of a senior research project conducted under the supervision of a member of the department. (1)

*Prerequisite: Senior Standing and BIOL 460 or permission.*

**BIOL 480 Capstone Research Experience**

This course will serve as a capstone experience for students pursuing the B.S., requiring them to use their mastery of the six themes and four skills that provide the foundation of the biology curriculum to complete a collaborative research based project. Starting with the primary literature, students will develop hypotheses to test, design and

execute experiments and/or observations to test these hypotheses, collect and analyze data, use the results of their analyses to draw conclusions, and communicate this process in a final paper and presentation. (1)

Lecture and Laboratory: 3 hrs./wk.

*Prerequisites: Senior Standing*

### **BIOL 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. An oral presentation is required. Prerequisite: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)

*Prerequisite: Senior Standing and BIOL 460 or permission.*

## **BUSINESS ADMINISTRATION**

*Professors Kevin Baker; Associate Professors Timothy Carpenter, Sharon Gibbs, Michelle Hagadorn (Chair), Johanna Sweet (Associate Chair); Lecturers Gulfem (Ivy) Kutlu, William Marilla, Arnica Mulder, Gregory Shaff, Michael Smith; Instructor Jonathan Flittner*

The degree of Bachelor of Business Administration requires successful completion of 13 units in Business Administration and Economics: Business Administration 110, 205, 218, 227, 233, 248, 254, 342, 348, and 499; Economics 121 and 122 and one (1) business elective: one additional unit in Business Administration or Economics (excluding internship). Since upper-level courses are based on prerequisites, students are urged to plan their programs carefully with their advisors. Students should complete, or be currently enrolled in, Business Administration 110, 205, 218, 227, and Economics 121 and 122, before the end of their sophomore year. Note that Business Administration 248 and Mathematics 111 and INQ/HNRS 240 as prerequisites.

### **Concentration in Accounting**

A concentration in accounting is achieved by completion of the following program with a cumulative grade point average of at least 2.0: Business Administration 315, 325, 335, 345, 415 and 425. At least three of these courses must be taken at Roanoke College. Admission to the concentration requires an overall grade point average of 2.0. *Note: Students will need to complete BUAD 205, 218, and 235 as pre-requisites to concentration courses.*

### **Concentration in Business Information Systems**

The concentration is achieved by completion of the following courses (with prerequisites noted):

BUAD 218 Information Systems (BUAD 110, MATH 111 or equivalent)

BUAD 338 e-Business (BUAD 218)

BUAD 438 Systems Analysis & Design (BUAD 218 and permission)

Choose three (3) units from the following:

BUAD 260 Special Topics (as approved by the department)

BUAD 328 Application Development in Business (BUAD 218)

BUAD 368 Decision Support & Intelligence Systems (BUAD 218, INQ/HNRS 240)

INQ 241 Mobile App Development

INQ 260 Social Scientific Reasoning (Information Systems topic – as approved by the department)

BUAD 406 Independent Study

BUAD 416 Internship (in information systems)

Pre-approved IL course

### **Concentration in Finance**

A concentration in finance is achieved by completion of the following program with a cumulative grade point average of at least 2.0: Economics 232, Business Administration 242, 342, 442 plus three courses selected from Economics 242, 247, 252, Business Administration 142, 322 (1/2 unit, repeated), 335, 345, 352, 405/407, 406, and 416. Admission to the concentration requires an overall grade point average of 2.0 and a 2.0 grade point average in all courses that are prerequisites to concentration courses.

### **Concentration in Global Business**

The concentration is achieved by completion of the following courses (with prerequisites noted):

BUAD 205	Accounting for Decision Making
BUAD 211	Global Management
BUAD 333	Global Marketing (BUAD 233)
ECON 247	International Trade and Finance (ECON 121 and 122)

Choose two (2) units from the following:

ECON 287	Economics and the Environment (ECON 120 or 121)
FREN 311	Building a Nation: French Civilization & Culture I (FREN 201, 202)
GRMN 311	German Civilization & Culture (GRMN 201, 202)
SPAN 311	Spanish Civilization and its Plural Nationalities (SPAN 303, 304, or permission)
I.R./POLI 231	International Politics (POLI 111 or permission)
I.R./POLI 232	International Organizations (POLI 111 or permission)
I.R./POLI 333	Global Political Economy (POLI 231)
BUAD 406	Independent Study
BUAD 416	Internship (in global business)

A travel course in another country

Foreign language at the 202 level

### **Concentration in Health Care Administration**

The concentration is achieved by completion of the following courses (with prerequisites noted):

BUAD 205	Accounting for Decision Making
BUAD 274	Human Resource Management
ECON 227	Health Economics (ECON 120 or 121)
PHST 201	Health and Society – Introduction to Public Health
PHIL 223	Ethics and Medicine

And one unit from the following courses:

BUAD 264	Foundation of Leadership
BUAD 324	Training & Development (BUAD 274)
BUAD 364	Team Dynamics (BUAD 254 or PSYC 382)
BUAD 406	Independent Study (in health care)
BUAD 416	Internship (in health care)

### **Concentration in Human Resource Management**

The concentration is achieved by completion of the following courses (with prerequisites noted):

BUAD 274	Human Resource Management
BUAD 324	Training, Development and Employee Relations (BUAD 274)
BUAD 334	Compensation and Benefits (BUAD 274)
BUAD 344	Recruitment, Selection, and Performance Management (BUAD 274)

Choose one (1) unit from:

BUAD 254	Organizational Behavior
PSYC 382	Industrial Organizational Psychology (PSYC 101 or HNRS/INQ 260PY or permission)

Choose one (1) unit from the following:

BUAD 211	Global Management
BUAD 364	Team Dynamics (BUAD 254 or PSYC 382)
BUAD 374	Negotiations (BUAD 274)
BUAD 416	Internship (in human resource management)
ECON 267	Labor Economics (ECON 120 or 121)

### **Concentration in Management**

The concentration in Management is achieved by completion of the following program with a cumulative grade point average of at least 2.0: Business Administration 110, 205, 254, plus 2 courses from a selection of Business Administration 211, 233, 264, 274, 342, 406 or 416, and 1 course elective from the following list: Business Administration 142, 210, 218, 227, 248, 324, 333, 338, 344, 348, 353, 363, 364, or Economics 121 or 122. This concentration is not available for Business Administration majors.

***Required courses (with prerequisites noted):***

BUAD 110	Business Connections
BUAD 205	Accounting for Decision Making
BUAD 254	Organizational Behavior and Management

***Choose (2) from the following:***

BUAD 211	Introduction to Global Management
BUAD 233	Marketing Management (BUAD 210 or 205 and either ECON 121 or 122)
BUAD 264	Foundations of Leadership
BUAD 274	Human resource Management
BUAD 406	Independent Study or BUAD 416 Internship

***Choose (1) from the following:***

BUAD 142	Personal Finance
BUAD 210	Entrepreneurship (BUAD 205)
BUAD 218	Information Systems (BUAD 205 and MATH 111 or permission)
BUAD 227	Legal and Labor Foundations of Business
BUAD 248	Business Analytics (INQ/HNRS 240, MATH 111, BUAD 205, and BUAD 218)
BUAD 324	Training, Development, and Performance Management (BUAD 274)
BUAD 333	Global Marketing (BUAD 233)
BUAD 338	e-Business (BUAD 218)
BUAD 342	Corporate Finance (ECON 121 and 122; BUAD 205 and 218)
BUAD 344	Recruitment and Selection (BUAD 274)
BUAD 348	Production & Operations Management (BUAD 110, MATH 111, INQ/HNRS 240)
BUAD 353	Sales and Sales Management (BUAD 233)
BUAD 363	Promotion Management (BUAD 233 or permission)
BUAD 364	Team Dynamics (BUAD 254 or PSYC 382)
ECON 121	Principles of Microeconomics
ECON 122	Principles of Macroeconomics

**Concentration in Marketing**

A concentration in marketing is achieved by completion of the following program with a cumulative grade point average of at least 2.0: Business Administration 233, 343, 433, 493 and two courses selected from Business Administration 333, 338, 353, 363, 406, 416, special topics course or pre-approved IL course.

Admission to the concentration requires an overall grade point average of 2.0 and a 2.0 grade point average in all courses that are prerequisites to concentration courses. Note that Business Administration 218, 233, and INQ/HNRS 240 (or equivalent) are prerequisites for Business Administration 433. Also Business Administration 233, 343 and 433 are prerequisites for Business 493. The Marketing Concentration is open to all majors who satisfy the GPA requirements stated above.

**BUAD 110 Business Connections**

This course is an introduction to the field of business with emphasis on business decision making through use of lectures, discussion and invited speakers. The course also utilizes a focused computerized simulation project designed to integrate all the functional areas of business covered throughout the semester. Students will gain an introductory knowledge of all the functional areas including, but not limited to economics, globalization, entrepreneurship, accounting, finance, marketing, information systems, business analytics and operation, organizational behavior, business law, and human resource management. In addition, students will be exposed to important issues relating to business management, leadership, professionalism and ethics. Other areas of emphasis include team building and technological skills. (1)

Lecture: 3 hrs./wk.



**BUAD 142 Personal Finance**

This course develops a comprehensive understanding of everyday financial matters such as banking, credit, home finances, planning, investing, and taxes. (1)

Lecture: 3 hrs./wk.

**BUAD 201 Fundamental Techniques in Accounting and Risk Management**

This course will examine the risk management process – the way in which businesses and consumers assess, control, and transfer risk. As a primary mechanism for managing risks, insurance products will be described and analyzed regarding their design, usage, pricing, and sales strategies. In addition, the financial health of insurance providers will be examined using basic accounting principles and financial statement analysis. (Cross-listed as ACSI 201) (1)

Lecture: 3 hrs./wk.

**BUAD 205 Accounting for Decision Making**

An introductory course in accounting designed to develop skills in critical thinking, problem solving, and communication. This course will cover the basic principles of financial statement development and analysis. Students will learn how accounting is a resource for decision making through the utilization of analytical tools, such as ratio analysis, cost volume profit analysis, cash and capital budgeting. (1)

Lecture: 3 hrs./wk.

**BUAD 210 Entrepreneurship**

A survey of issues involved in starting and owning a small business including forms of ownership, acquisition of financing, marketing and operations concepts, culminating in the preparation of a simplified business plan. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 205.*

**BUAD 211 Introduction to Global Management**

An introduction to the organizational, legal, economic, human and cultural aspects of conducting and managing business internationally. (1)

Lecture: 3 hrs./wk.

**BUAD 216 Internship**

A supervised placement at a work setting providing practical experience in a potential career field that requires application of academic knowledge and skills. These areas may include industry, government agencies, on-campus opportunities, and a variety of private enterprises. (1/2) *Written application approved by department. May be repeated for credit. This course will be graded on a pass-fail basis. 60 hours on site.*

**BUAD 218 Information Systems**

This course explores the fundamental concepts of information systems in modern organizations. The course provides intensive preparation in the most useful applications of computers in business. (1)

Lecture: 3 hrs./wk.

**BUAD 227 Legal and Labor Foundations of Business**

This course will integrate important components from Business Law with Human Resource Management. The course is designed to give a foundation in the concepts of Business Law and HRM. Assignments and projects will apply the concepts learned including the selection of an organizational form, applicable legal requirements, hiring process, performance appraisal, and designing a comprehensive HRM plan for a hypothetical business. (1)

Lecture: 3 hrs./wk.

**BUAD 233 Principles of Marketing**

Principles, practices, and basic theoretical concepts in the field of marketing. Special attention will be given to sustainable business activities. (1)

Lecture: 3 hrs./wk.

**BUAD 235 Fundamentals of Accounting Principles**

This course is a continuation of the study of financial accounting principles and practices and will focus on the analysis and preparation of account information. Students will learn how accounting aids in the development, disclosure, and communication of financial information. Account concepts and methods utilizing generally accepted accounting principles (GAAP) are discussed, in addition to the accounting cycle for both service and merchandising enterprises. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 205.*

#### **BUAD 242 Investments**

An introduction to security analysis, principles, and problems of investments for individuals and firms; management of the securities by risk and purpose of investors. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 205 (for non-Business majors, ACSI/BUAD 201 will satisfy the BUAD 205 prerequisite) and ECON 122, or permission.*

#### **BUAD 248 Business Analytics**

The objective of the course is for students to develop critical thinking and modeling skills which are essential requirements of the business decision making process. Critical thinking will be practiced through problem identification and solution. Problem solution will require the identification and execution of applicable models and data sets. Thus a main portion of this course will be directed toward determining and finding appropriate data, learning the roles and limitations of different types of modeling tools, and then developing customized models using the appropriate data to solve business problems. (1)

Lecture: 3 hrs./wk.

*Prerequisites: INQ/HNRS 240, MATH 111, BUAD 205, and BUAD 218.*

#### **BUAD 254 Organizational Behavior and Management**

An introductory examination of theoretical principles and practical applications related to managing and leading individuals and groups in the work setting. (1)

Lecture: 3 hrs./wk.

#### **BUAD 260 Topics in Business Administration**

Selected topics involving problems and controversies of a social and political nature. (1)

Lecture: 3 hrs./wk.

#### **BUAD 264 Foundations of Leadership**

A broad theoretical and practical overview of leadership concepts and principles. Topics will include, but are not limited to traits of effective leaders, ethics, team development, leadership theory, strategic leadership and conflict resolution. Students will be required to develop and present an original community-based leadership project proposal. (1)

Lecture: 3 hrs./wk.

#### **BUAD 274 Human Resource Management**

The principles of employee selection, job design, performance appraisal, compensation, training and development, career management, safety and health, and labor relations. (1)

Lecture: 3 hrs./wk.

#### **BUAD 315 Intermediate Accounting I**

This course examines the political environment and conceptual foundations, basic mechanics, and fundamental topics of financial reporting. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 235.*

#### **BUAD 322 Student-Managed Fund**

The participants in this class will manage a portion of the College's general endowment fund by actively managing a portfolio under the supervision of a faculty member. The fund will be continuously managed, with the course portion being offered each (and every) semester. Students earn 1/2 unit per semester. A maximum of two units can be earned toward graduation with only one unit counting toward the Finance Concentration. Offered on a pass-fail basis. (1/2)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 122 and BUAD 205.*

### **BUAD 324 Training, Development, and Performance Management**

A deeper examination of the training functions in organizations, with particular emphasis on conducting a needs assessment and then designing, developing, conducting, and evaluating training. Students will conduct a training program as part of the course requirements. Students will also examine development of employees, performance management, and employee relations. (1)

Lecture: 3 hrs./wk.

### **BUAD 325 Intermediate Accounting II**

Continuation of Business Administration 315. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 315 or permission.*

### **BUAD 328 Application Development in Business**

A comprehensive overview of computer applications development in business using application programming and application development tools. This course will serve as an elective within the Business Administration major and as a requirement in the Business Information Systems concentration. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 218.*

### **BUAD 333 Global Marketing**

This course introduces the students to political, cultural, and economic factors influencing the global marketing of goods and services. The students will learn about development of international products, pricing strategies, promotion techniques, and channels of distribution. (1)

Lecture/Case Study: 3 hrs./wk.

*Prerequisite: BUAD 233.*

### **BUAD 334 Compensation & Benefits**

A deeper examination of compensation and benefits in organizations. Compensation topics will include strategies for pay increases, analysis of salary survey data, internal equity issues, and compliance and regulatory issues. Benefits topics will include statutory vs. voluntary benefits, paid time off, retirement plans, health and wellness benefits, regulatory issues, family-friendly benefits, and managing employee benefits. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 274; BUAD 218 recommended.*

### **BUAD 335 Cost Accounting**

The measurement of product cost arising from material procurement and use, employment of labor services, and overhead factors in job order and process settings. Budgeting, standard costs, and other tools for planning and control. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 218 and 205.*

### **BUAD 338 e-Business**

Comprehensive coverage of electronic business and electronic transactions to include electronic marketing and retailing, electronic procurement and payment, cyber security, online auction and shops, and web technologies for virtual communities in a global marketplace. (1)

Lecture: 2 hrs./wk.; Lab: 1 hr./wk.

*Prerequisite: BUAD 218.*

### **BUAD 342 Corporate Finance**

The principles of asset management, financial structure, and types of securities and their characteristics. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 121 and 122; BUAD 218 and 205; declared Business major or permission (for non-Business majors only, ACSI/BUAD 201 will satisfy the BUAD 218 and 205 prerequisites).*

**BUAD 343 Consumer Behavior**

This course provides a comprehensive overview of the theories related to buyer behavior. Students will learn how to apply these theories in marketing and retailing contexts. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 233 and ECON 121 or permission.*

**BUAD 344 Recruitment and Selection**

A deeper examination of the staffing management function in organizations, including a focus on research and best practices for recruitment and selection. Particular attention will be paid to conducting job analysis, developing interview questions, and evaluating candidates. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 274.*

**BUAD 345 Income Taxation**

Examination of the present federal tax law and development of the accounting principles and procedures involved in the preparation of tax returns. PC applications are utilized. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 205 or permission.*

**BUAD 348 Production and Operations Management**

Basic principles and problems of organizing and operating business facilities including functions, process, responsibilities, and techniques. Substantial computer applications. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 111, or INQ/HNRS 240.*

**BUAD 352 Fixed Income and Derivative Securities**

This course considers advanced investment vehicles employed by both, investment practitioners and corporations. These types of securities typically allow a corporation to rid itself of unwanted forms of risk (those forms of risk not directly related to their competitive expertise) and allow investors to take on these risks (for a fee in the form of investment returns). Other times, however, these securities are merely traded by speculators, making these markets both fascinating and complex. Regardless of which side of the equation one stands on, understanding the structure, uses, and valuation of these securities will allow one to make financially advantageous decisions. Students in this course will gain a better understanding of how these markets work, how corporations use them to manage risk, and how investors can use these instruments rationally. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 242, 342.*

**BUAD 353 Sales and Sales Management**

An in-depth study of the steps associated with the personal selling process as well as the techniques required to motivate and manage a high performance sales force effectively. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 233.*

**BUAD 363 Integrated Marketing Communications**

This course provides a comprehensive overview of the principles and problems faced in the area of integrated marketing communication (IMC) and its role in the marketing mix. Students will gain understanding and practice in the development of an integrated marketing campaign; the use of sales promotion tools; and issues in regulation, ethics, and cultural impact of those activities. The topics covered will also include digital marketing and social media marketing. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 233 or permission.*

**BUAD 364 Team Dynamics**

An examination of the dynamics of team development and teamwork. Topics covered in this course will include, but are not limited to group theory, mission and goal development, team development, conflict management, problem solving and team leadership. Students will be required to demonstrate competency in team leadership through the development of a class project in team dynamics. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 254 or PSYC 382.*

### **BUAD 374 Negotiations**

The goal of this course is to help students understand and improve their negotiating and decisions-making skills, as well as to understand the actions of others. The class includes extensive use of cases and experiential exercises. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 254 or PSYC 382.*

### **BUAD 395, 396 Henry H. Fowler Public Policy Seminar**

A seminar taught with a scholar-statesperson that deals with a policy issue of public significance. (Made possible by the Henry H. Fowler Endowment. Open to selected students with Department permission.) (1, 1/2)

### **BUAD 405, 406, 407 Independent Study and Research**

A program of intensive study in Business Administration carried out under the direction of a member of the Departmental staff. (Enrollment with the approval of the Department.) (1/2, 1, 1/2)

### **BUAD 415 Auditing**

A course covering the principles employed in the conduct of a financial statement audit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 315.*

### **BUAD 416 Internship**

A supervised placement at a work setting providing practical experience in a potential career field that requires application of academic knowledge and skills. These areas may include industry, government agencies, on-campus opportunities, and a variety of private enterprises. (1) *Written application approved by department. May be repeated for credit. This course will be graded on a pass-fail basis. 120 hours on site.*

### **BUAD 425 Advanced Accounting**

A course focusing on the consolidation of financial statements. In addition, a brief introduction to international, governmental and nonprofit accounting is covered. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BUAD 315.*

### **BUAD 433 Marketing Research**

A course providing students with the skills needed to define a research situation, construct the research model, collect and analyze data, generate and test the response or solution, and integrate the steps into a coherent project. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 233, and INQ/HNRS 240 or permission.*

### **BUAD 442 Finance Capstone**

An in-depth analysis of financial theory, principles, and policies used in managing the firm's capital structure. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 242 and 342 and ECON 232 or permission.*

### **BUAD 493 Marketing Capstone**

In this capstone course students will integrate the marketing material previously learned with the analytical and critical thinking skills to make marketing decisions. A variety of marketing concepts and techniques will be used to develop marketing objectives, strategies and programs. The course will include case studies, evaluation of leading marketing articles, use of simulations and the development of a formal marketing plan. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BUAD 343 and 433.*

### **BUAD 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and*

*application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

### **BUAD 499 Business Policy**

In this capstone course of the Business Administration curriculum, students will use Strategic Management as the framework to integrate and apply the knowledge acquired from all the coursework in the Business Administration major. The course utilizes lecture, readings, case methodology, simulations, and a major project of starting a business entity. (1)

Lecture: 3 hrs./wk.; Lab 3 hrs./wk.

*Prerequisites: BUAD 227, 233, 248, 254, 342, 348 and senior major status.*

## **CHEMISTRY**

*Professors Gary Hollis, Timothy Johann (Chair), Catherine Sarisky, Associate Professors Kelly Anderson, William Brenzovich, Steven Hughes, Richard Keithley; Assistant Professor Daniel Nasrallah; Lecturer Stephanie Livingston*

Four major programs are offered by the department: The B.A. in Chemistry, the B.S. in Chemistry, the B.A. in Biochemistry, and the B.S. in Biochemistry.

The B.A. requires 10 units of chemistry, including Chemistry 111 or 117, 112 or 118, 221, 222, 331, 332, 350, 255 (1/2), 355 (1/2), and two additional CHEM courses numbered 250 or higher. (CHEM 416 may not be used to fulfill this requirement). Math 121 and 122 and two units of physics with lab are prerequisites for Chemistry 331 and 332, which is required for all chemistry majors.

The B.S. in Chemistry requires 12 units in chemistry, including Chemistry 111 or 117, 112 or 118, 221, 222, 260, 331, 332, 341, 350, 255 (1/2), 355 (1/2), one unit of research at the 400-level, one unit of another advanced course (342, 420, 430, 460, or 499), and one additional CHEM course numbered 250 or higher. (CHEM 416 may not be used to fulfill this requirement). Math 121 and 122 and two units of physics with lab are prerequisites for Chemistry 331 and 332, which is required for all chemistry majors. Students who complete this program are certified by the American Chemical Society.

The B.A. in Biochemistry requires 10.5 units in chemistry and biology, including Chemistry 111 or 117, 112 or 118, 221, 222, 341, 342, 255 (1/2), Biology 190, 210, 315. Students must also complete one of these two options: either one unit of research in either CHEM or BIOL culminating in a formal paper and oral defense, or one additional elective related to Biochemistry from either biology or chemistry, selected from the following: Biology 235, 370, 380, 400, 410, 420, one unit of Chemistry 250 or higher, (CHEM 416 may not be used to fulfill this requirement). Please note that upper level biology and chemistry courses may have additional prerequisites. B.A. candidates must also complete two semesters of physics with lab (either PHYS 103 and 104 or PHYS 201 and 202) and calculus through MATH 121.

The B.S. in Biochemistry requires 12.5 units in chemistry and biology, including Chemistry 111 or 117, 112 or 118, 221, 222, 331, 341, 342, 255 (1/2), Biology 190, 210, 315, and either 380 or 400. Students must also complete one of these two options: either one unit of research in either CHEM or BIOL that culminating in a formal paper and oral defense, or one additional unit of CHEM numbered 250 or higher. (CHEM 416 may not be used to fulfill this requirement). Math 121 and 122 and two units of physics with lab are prerequisites for Chemistry 331, which is required for all chemistry and biochemistry majors. Biochemistry majors may receive certification from the American Chemical Society by taking three additional chemistry courses. See the Chair of the Chemistry Department for details.

For students with competency in CHEM 111, the units in the major decrease by one with the B.A. in Chemistry requiring 9 units in chemistry, the B.S. in Chemistry requiring 11 units in chemistry, the B.A. in Biochemistry requiring 9.5 units in chemistry and biology as enumerated above, and the B.S. in Biochemistry requiring 11.5 units in chemistry and biology as enumerated above.

Chemistry and Biochemistry majors are strongly encouraged to do research; students wishing to strengthen their programs of study are advised to take advanced level courses in chemistry, mathematics, or other sciences.

Students are cautioned that all 300- and 400- level chemistry courses require completion of CHEM 222 with a C- or better.

### **Minor in Chemistry**

The minor in chemistry requires seven units in chemistry, which can include Chemistry 111 or 117, 112 or 118, 221, 222, 260, 270, 299, 331, 332, 340, 341, 342, 350, 399, 405, 406, 407, 420, 460 or 499. For students with competency in CHEM 111, the units in the minor decrease by one.

### **Chemistry Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **CHEM 111, 112 General Chemistry: Foundations I and II**

The introductory course in chemistry. (Appropriate for all science majors, including chemistry, biochemistry, pre-medical, pre-dental, pharmacy, and paramedical students. Credit cannot be earned for both CHEM 111 and CHEM 117 or for both CHEM 112 and CHEM 118) (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 111 or 117 is a prerequisite for CHEM 112.*

### **CHEM 117, 118 General Chemistry: Advanced Principles and Applications I and II**

The introductory courses in chemistry, suitable for students with strong chemistry and math backgrounds. Topics covered include atomic and molecular structure, stoichiometry, bonding, reactions, equilibrium, thermodynamics, kinetics, solutions, and acid-base chemistry. Particular emphasis will be placed on applications of fundamental chemical concepts. (Appropriate for all science, including chemistry, biochemistry, pre-medical, pre-dental, pharmacy, and other pre-health students.) Credit cannot be earned for both CHEM 111 and CHEM 117 or CHEM 112 and CHEM 118. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 111 or CHEM 117 is a prerequisite for CHEM 118.*

### **CHEM 204, 205 Research Experience**

A research project in chemistry or biochemistry. May not be used to satisfy requirements for any Chemistry or Biochemistry major, minor, or concentration. May be repeated for credit. (1/4, 1/2)

*Prerequisite: Permission.*

### **CHEM 221, 222 Organic Chemistry I and II**

A study of the chemistry of the compounds of carbon. Fundamental concepts of chemical bonding are employed to develop chemical models and to correlate structure-property relationships within and among the various classes of carbon compounds. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 112 or CHEM 118 is a prerequisite for CHEM 221; CHEM 221 is a prerequisite for CHEM 222.*

### **CHEM 255 Quantitative Chemical Analysis**

A study of the theoretical principles and technical practices relating to quantitative measurements within chemical systems. Topics include solution preparation, gravimetric and volumetric technique, data handling and analysis, and use of chemical instrumentation. (1/2)

Lecture and Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 112 or 118.*

### **CHEM 260 Descriptive Inorganic Chemistry**

A study of the elements and their compounds. The properties of these substances, spanning the entire periodic table, will be described and explained through the connections to chemical theories and concepts. The occurrence, isolation, uses, and compounds of elements will be explored. Biochemical and industrial applications will be considered. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 112 or CHEM 118.*

### **CHEM 270 Environmental Chemistry**

A study of the sources, reactions, transport and fate of chemicals in air, water, and soil environments as well as the effects of these compounds on human health and the natural environment. The chemistry of both natural and anthropogenic processes will be examined. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 112 or CHEM 118.*

### **CHEM 299 Special Topics in Chemistry**

The study of a special topic in chemistry that is not normally offered. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Permission.*

### **CHEM 331 Physical Chemistry: Thermodynamics and Kinetics**

The physical aspects of chemical phenomena, including the properties of solids, liquids, gasses and solutions; thermodynamics; and kinetics. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 222 with a C- or higher; CHEM 255, MATH 122, and two units of physics. The second semester of physics may be taken concurrently with CHEM 331.*

### **CHEM 332 Physical Chemistry: Quantum Mechanics**

The physical aspects of chemical phenomena, focusing primarily on the quantum mechanical nature of atoms and molecules. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CHEM 222 with a C- or higher; CHEM 255, MATH 122, and two units of physics. The second semester of physics may be taken concurrently with CHEM 332.*

### **CHEM 340 Pharmaceutical Chemistry**

A study of the chemistry of pharmaceuticals, with emphasis on the molecular-level interactions between drugs and the body. Drug metabolism, drug-receptor interactions, and drug development are explored with case studies including cancer drugs, opiates, and antibiotics. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CHEM 222 with a C- or higher.*

### **CHEM 341, 342 Biochemistry I & II**

A study of the major macromolecules found in biological systems with an emphasis on structure/function relationships, as well as the role of each class in central and secondary metabolic processes. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 222 with a C- or higher; CHEM 341 is a prerequisite for CHEM 342.*

### **CHEM 350 Instrumental Analysis**

The theory and practice of the principal methods of instrumental analysis. Areas include electrochemistry, chromatography (GC and LC), spectroscopic methods (UV-Vis, IR, NMR), mass spectrometry, X-ray analysis, and atomic absorption. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CHEM 222 with a C- or higher and CHEM 255.*

### **CHEM 355 Experimental Design**

Practical application of chemical theory and laboratory skills to develop experiments designed to answer a student-developed research question. (1/2)

Laboratory 3 hrs./wk.

*Prerequisite: CHEM 331.*

### **CHEM 399 Special Topics in Chemistry**

The study of a special topic in chemistry that is not normally offered. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Permission.*



**CHEM 405, 406, 407 Independent Study and Research**

A research project in chemistry or biochemistry that results in the production of a scholarly paper and an oral presentation. May be repeated for credit. (1/2, 1, 1/2)

*Prerequisite: Permission.*

**CHEM 416 Internship**

Practical experience in a setting where chemistry is applied, under the guidance of a member of the chemistry department faculty. (This course may count as elective credit but not fulfill a degree requirement in chemistry or biochemistry.) (1)

*Prerequisite: Junior or senior standing and permission.*

**CHEM 420 Advanced Organic Chemistry**

An in-depth study of selected topics in organic chemistry, with particular emphasis on physical organic chemistry. (Offered in alternate years.) (1)

Lecture: 3 hrs./wk.

*Prerequisites: CHEM 222 with a C- or higher.*

**CHEM 460 Advanced Inorganic Chemistry**

Advanced topics in inorganic chemistry with an emphasis on bonding and structure. (1)

Lecture: 3 hrs./wk. (Offered in alternate years.)

*Prerequisites: CHEM 222 with a C- or higher.*

**CHEM 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and the Department. A minimum GPA of 3.4 in the major is required. (1/2, 1, 1/2)*

**CHEM 499 Special Topics in Chemistry**

The study of a special topic in chemistry that is not normally offered. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Permission.*

**CHINESE**

A major in Chinese is not offered at Roanoke College.

**CHIN 101, 102 Elementary Chinese I, II**

A study of the fundamentals of Chinese with emphasis on pronunciation and aural comprehension. Includes oral and written work, cultural material, and selected readings. (1, 1)

Lecture: 3hrs./wk.

*Prerequisite: CHIN 101, or its equivalent, is a prerequisite for 102.*

**CHIN 201 Intermediate Chinese I**

A review of the essentials of Chinese grammar with the introduction of advanced structures, continued development of essential language skills, and further acquisition of vocabulary. An emphasis will be placed on cultural issues and on conversational skills to handle situations of everyday life and to increase the range of personal expression; inclusion of cultural materials. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CHIN 102.*

**CHIN 202 Intermediate Chinese II**

A continuation of the advancement of Chinese grammar with the introduction of advanced structures, continued development of essential language skills, and further acquisition of vocabulary. An emphasis will be placed on cultural issues and on conversational skills to handle situations of everyday life and to increase the range of personal expression; inclusion of cultural materials. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CHIN 201.*

### **CHIN 306 Advanced Studies in Chinese**

Guided independent learning to continue the acquisition of the Chinese language and the study of culture beyond the 202 level. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CHIN 202.*

## **CLASSICS AND THE ANCIENT MEDITERRANEAN WORLD**

*Professor Jennifer Berenson; Associate Professor Jason Hawke, Coordinators*

Study of the Classics and the Ancient Mediterranean World encompasses the cultures of the Ancient Near East (e.g., Egypt, Assyria and Persia) and of the Classical world (i.e., Greece and Rome). Students from any major may earn a concentration in Classics and the Ancient Mediterranean World by successfully completing (with a cumulative grade point average of at least 2.0) at least six units. Of these units, two must be in the same ancient language (Greek or Latin are offered regularly; Egyptian may be available through special tutorials with the permission of the professor). A third unit of an ancient language may be counted toward the concentration with the approval of the concentration coordinator. The remaining courses offered for the concentration must come from at least two different disciplines. Interested students should contact the concentration coordinators as soon as possible for help in identifying additional appropriate courses available on campus (including special topics, INQ courses and Intensive Learning courses) or through overseas studies programs.

GREK 101, 102	Elementary Ancient Greek I, II
LATN 101, 102	Elementary Latin I, II
ARTH 150	Art, Culture, & Society I
ARTH 220	Ancient Egyptian Art and Archaeology
ARTH 222	The Archaeology of Death in the Ancient Near East
ARTH 224	The Encyclopedic Museum and Archaeological Ethics
ARTH 291/391	Special Topics in Art History (as appropriate)
HIST 110	Ancient World
HIST 211	The Origins of War
HIST 212	Ancient Greece
HIST 213	Age of Alexander the Great
HIST 214	Ancient Rome
HIST 290	Special Studies (as appropriate)
HIST 310	Issues in Ancient History
HIST 490	Research Seminar (as appropriate)
PHIL 251	Early Western Philosophy
RELG 202	New Testament Christianities
RELG 210	Early Christian Conflicts and Community Life
ENGL 220	Special Topics (as appropriate)

## **COMMUNICATION STUDIES**

*Associate Professor Thomas Carter; Assistant Professors Nadia Martinez-Carrillo, Carrie Murawski*

The Communication Studies major provides a liberal arts approach to a dynamic and varied discipline. The major is designed to allow students the flexibility to focus on preparing for further studies in graduate school or to pursue a career in such fields as mass media, public communications, and organizational communications.

Students desiring to major in Communication Studies are encouraged to complete INQ/HNRS 240 (Statistical Reasoning) as early as possible.

The English and Communication Studies Department at Roanoke College houses three majors: Communication Studies, Creative Writing and Literary Studies. See separate listings under Communication Studies, Creative Writing, and Literary Studies for the requirements for the majors and minors in these fields.

To complete a major in Communication Studies, a student must complete 10 courses as outlined below:

**Required (six units)**

COMM 101	Introduction to Communication Studies
COMM 250	Communication Theory
COMM 254	Rhetorical Traditions
COMM 350	Research Methods
COMM 354	Rhetorical Theory and Criticism
COMM 411	Seminar

**Intermediate (two units from):**

COMM 202	Mass Communications
COMM 220	Public Speaking
COMM 260	Interpersonal Communication

**Electives (two units):**

COMM 301	Special Topics
COMM 317	Professional Communication
COMM 319	Journalism
COMM 330	Small Group Communication
COMM 360	Studies in Intercultural Communication
COMM 405, 406, 407	Independent Study
COMM 416	Internship
COMM 496	Honors Project
ENGL 356	Studies in Film
SCRN 210	Digital Media Production

**Minor in Communication Studies**

A minor in Communication Studies requires six units, including COMM 101; COMM 250; two units from COMM 202, COMM 220, COMM 254, COMM 260; and two units at the 300-level or above.

**COMM 101 Introduction to Communication Studies**

Introduction to oral communication and communication theory. Course includes study of various communication models and situations and the processes and techniques that function within them. It also examines cultural, symbolic, and perceptual variants and their effects on the communications process. (1)

Lecture: 3 hrs./wk.

**COMM 116 Social Media Practicum**

A supervised experience as a social media content creator. This course provides practical experience that requires application of academic knowledge and skills in a professional, work-like setting. 30 hours. Graded Pass/Fail.

(1/4)

*Prerequisite: Permission.*

**COMM 202 Mass Communication**

A survey of the theories, processes, effects, and media of mass communication. The course will focus on issues of concern principally to the mass media within the United States, but issues of globalization will be addressed. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 101.*

**COMM 220 Public Speaking**

Study of voice, production, and management in various forms of public address. (1)

Lecture: 3 hrs./wk.

*Prerequisite: INQ 110 or INQ 120 or HNRS 105.*

**COMM 250 Communication Theory**

An introduction to the most important contemporary theories of human communication. This course will explore general issues concerning the nature of theory and communication, the relation between theory and practice, and the influence of culture and gender. Students will critically examine how the communication process contributes to the development of information and meaning, selfhood, interpersonal relationships, social influence, and culture. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 101.*

### **COMM 254 Rhetorical Traditions**

Rhetoric permeates all aspects of social life and has been studied since the 5<sup>th</sup> century BCE. This course is a survey of the historical development of philosophies or theories of rhetoric from ancient Greece to the present day. It will cover major figures and movements within the discipline of Communication Studies. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 101.*

### **COMM 260 Interpersonal Communication**

An introduction to issues in interpersonal communication, examined from the perspective of communication competence. Using scientific concepts and theories, students will be asked to become critics of everyday conversation. Students will also use theoretical principles to improve personal effectiveness, appropriateness, and adaptability in conversing with others. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 101.*

### **COMM 301 Special Topics**

A concentrated study of a topic or issue related to the field of communications. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 250.*

### **COMM 317 Professional Communication**

The study and practice of communication theories, concepts, and skills as they apply to business and professional settings including interpersonal and group dynamics, written communication, business and professional presentations and meeting management skills. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 250.*

### **COMM 319 Writing for Media**

A practical introduction to journalism, with special emphasis on reporting skills and writing newspaper news and features, broadcast news, and public relations products. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 250.*

### **COMM 330 Small Group Communication**

Introduction to and practice in the structured small group, with primary emphasis on preparation for, analysis of, and participation in problem-solving oriented groups. (1)

Lecture: 3 hrs./wk.

*Prerequisites: COMM 250.*

### **COMM 350 Research Methods**

Introduction to the principles and basic skills necessary to criticize research literature. In this course students will develop descriptive and experimental studies using data collection, analysis and presentation techniques in communication research. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 250.*

### **COMM 354 Rhetorical Theory and Criticism**

In this course students will think, analyze, and write carefully about public messages that influence our experience, professions, lives and cultures. This course will explore the possibilities and difficulties of forming, using, and evaluating messages that individuals or groups use to influence or change a large public audience. (1)

Lecture: 3 hrs./wk.

*Prerequisite: COMM 250 and 254.*

### **COMM 360 Studies in Intercultural Communication**

An examination of major issues related to intercultural and cross-cultural communication. The course will explore those communication issues in particular cultures both within and beyond the United States. (1)

Lecture: 3 hrs./wk.

*Prerequisites: COMM 250; COMM 260 is strongly recommended.*

### **COMM 405, 406, 407 Independent Study**

Supervised reading and research of a specific subject within media or communication studies resulting in a written report. (1/2, 1, 1/2)

*Prerequisites: One 300-level COMM course.*

### **COMM 411 Senior Seminar**

A seminar approach to selected topics for advanced students. (1)

*Prerequisites: COMM 350 and 354.*

### **COMM 416 Internship**

Experience in a field of applied communications (for example, newspaper, radio, television), under supervision from the agency involved and the course instructor. (1)

Laboratory: 10 hrs./wk.

*Prerequisite: One 200-level COMM course and permission.*

### **COMM 495, 496, 497 Honors Project**

A program of independent study culminating in a paper.

*Prerequisite: To qualify for consideration for honors in the major, a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and the department. A minimum GPA of 3.4 in the major is required.*

*Communication 350 and 354; Communications 495 Honors Project is a prerequisite for 497 Honors Project.*

(1/2, 1, 1/2)

## **COMPUTER SCIENCE**

*Professor Anil Shende, Coordinator; Associate Professor Durrell Bouchard; Assistant Professor Adewale Sekoni*

Our modern world relies on computers for everything from electronic commerce to medicine, from online entertainment to online searching for information, from social networking to robotics, from controlling power plants to flying airplanes. Computer scientists are needed more than ever to design and build the computational systems that society depends on now and will need to solve future problems. The computer science program at Roanoke College prepares students to play a part in meeting these computational needs and challenges and to be lifelong learners capable to adapting to the changing landscapes of technology. It provides students with a balanced breadth and depth of knowledge in computer science that allows them the choice between continuing their education in graduate school or beginning their professional career. The B.S. in Computer Science gives students a solid foundation in computer science while developing the skills necessary to apply their knowledge in the modern computing environment. The Computer Science program gives students a deeper understanding of the theoretical foundation of computer science.

A Bachelor of Science degree with a major in computer science requires the satisfactory completion of 13 units in the areas of computer science, mathematics, and statistics:

#### **Core Courses (10 units)**

CPSC 120

Programming

CPSC 170

Fundamentals of Computer Science

CPSC 250

Data Structures and Algorithms

CPSC 270

Software Engineering and Project Design

CPSC 350

Databases and Web Programming

CPSC 370	Data Mining
CPSC 450	Theory of Computation
CPSC 470	Senior Project
MATH 131	Discrete Mathematics

**One of:**

- |                                   |                        |
|-----------------------------------|------------------------|
| <input type="checkbox"/> STAT 210 | Statistical Methods I  |
| <input type="checkbox"/> STAT 220 | Statistical Methods II |

**Electives (3 units)**

- ☐ Any CPSC course not in the core, at the 300-level or above, can count as an elective
- ☐ One elective must be a CPSC course at the 400-level
- ☐ At most one elective may be a MATH course at the 200-level or above with the approval of the program coordinator.

**Minor in Computer Science**

A minor in Computer Science requires six units: Computer Science 120, 170, 250, Mathematics 131, and two additional units of computer science chosen from CPSC 270 or any CPSC course at or above the 300 level.

**Computer Science Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

**CPSC 120 Programming**

An introduction to the art of programming through a student-designed software development project. Students will use the programming concepts of variables, expressions, loops, conditionals, functions, and lists to solve programming problems. More importantly, students will develop the high-level skills of algorithmic thinking, problem-solving, debugging, testing, and program design. (1)

Lecture: 3 hrs./wk.

*Prerequisites: No formal prerequisite; however, a strong aptitude for math usually predicts success in the course.*

**CPSC 170 Fundamentals of Computer Science**

Program design and implementation including inheritance, polymorphism, abstraction, recursion, searching, and sorting. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CPSC 120.*

**CPSC 205 Research Experience**

A research project in computer science; may be repeated for credit. (1/2)

*Prerequisite: Permission.*

**CPSC 250 Data Structures and Algorithms**

The design, implementation, and analysis of data structures and the algorithms associated with them. (1)

Lecture: 3hrs/wk.; Laboratory: 3 hrs./wk.

*Prerequisite: CPSC 170.*

**CPSC 270 Software Engineering and Project Design**

Introduction to the principles of software engineering, software process models, requirements engineering, designing methodology and metrics, and testing and quality assurance. Students will apply these principles to the design and implementation of a large software project. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250.*

**CPSC 310 Topics in Applied Computing**

A course offered in various formats, designed to give students instruction and hands-on experience in an area of applied computing. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250.*

**CPSC 342 Numerical Analysis**

Numerical integration and differentiation, numerical methods in linear algebra, interpolation; error analysis, stability, and conditioning. (Offered on a rotating basis, not every year.) (Cross-listed as Mathematics 342.) (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 201, MATH 122 and CPSC 120.*

(Offered on a rotating basis, not every year.)

**CPSC 350 Databases and Web Programming**

Study of Relational Database Systems, Structured Query Language, designing databases, and web programming using HTML, CSS and JavaScript on the front end and PHP, using a database, on the back end. (1)

Lecture: 3 hrs./wk.

*Prerequisites: CPSC 170 or DATA 170.*

**CPSC 361 Systems Administration**

This course introduces students to computer hardware, installation and maintenance of operation systems on stand-alone computers, and various systems administration tasks including creating and maintaining user accounts, managing user privileges, learning about scripting languages and writing scripts to automate tasks, and managing computer resources. The course also introduces students to system administration of computers in a networked environment. Students will learn about configuring and managing various network services including network file systems and network information systems. Students will also learn about network security and creating secure networks by creating software firewalls. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 170.*

**CPSC 362 Video Game Development**

This course focuses on the techniques and technologies of creating real-time interactive 3D video games. Students will build a game engine and a game that uses the engine. Topics include 3D transformations, materials, animation, collision detection, and character animation. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250.*

**CPSC 363 Robotics**

This course focuses on the design and development of embedded systems for robotics. Students will use a microcontroller to create a mobile, sensing robot. Topics include electronics, circuits, embedded systems, 3D printing, physical computing, and real-time computing. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250.*

**CPSC 370 Data Mining**

This course introduces students to the study of various machine learning algorithms. It covers the preparation of data sets for use with machine learning algorithms for mining information. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 170.*

**CPSC 405, 406, 407 Independent Study and Research**

Selected topics in computer science carried out under the direction of a member of the computer science staff. (Enrollment with the approval of the Chair of the department.) (1/2, 1, 1/2)

**CPSC 416 Internship**

Field placement providing practical experience and training in areas in which computer science is applied. These areas may include industry, government agencies, educational institutions, insurance companies, and a variety of private enterprises. (1)

*Prerequisite: Permission.*

**CPSC 450 Theory of Computation**

Study of formal models of computation. Topics include regular, context-free, context-sensitive, and unrestricted grammars; Church's thesis; computability; and undecidability.

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250 and MATH 131.*

### **CPSC 461 Architecture and Operating Systems**

Machine language and assembly language concepts, data paths, parallel system architecture; system calls, process synchronization and scheduling, input and output subsystems, memory management, file systems. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250.*

### **CPSC 462 Analysis of Algorithms**

Introduction to the analysis of algorithms. Students will revisit various algorithm design techniques, learn methods to analyze the computational complexity of the resulting algorithms, and study complexity classes to differentiate between tractable and intractable problems. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 250 and MATH 131.*

### **CPSC 463 Principles of Programming Languages**

Fundamentals in the design and implementation of programming languages. Topics include BNF, compilation and interpretation, data types, control structures, runtime systems, data abstraction, exception handling and concurrency. Language paradigms include functional, logic, and object oriented approaches. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CPSC 270.*

### **CPSC 464 Networks**

An experiential study of the fundamentals of networking, networked applications, network security, and the use of software tools in troubleshooting networks. (1)

Lectures: 3 hrs./wk.

*Prerequisite: CPSC 250.*

### **CPSC 465 Machine Learning**

Study of various machine learning techniques, including Neural Networks, Support Vector Machines, Decision Trees, Evolutionary Learning, and Deep Learning. (1)

Lectures: 3 hrs./wk.

*Prerequisite: CPSC 170, MATH 121, MATH 131, and STAT 210.*

### **CPSC 470 Senior Project**

This senior project course is the culmination of the computer science major. It presents students with the opportunity to put into practice the knowledge and skills they have developed throughout their education. In the course, students will work in teams to specify, design, implement, and test a significant software project using appropriate techniques and tools. (1)

Lectures: 3 hrs./wk.

*Prerequisite or co-requisite: CPSC 350 and CPSC 370.*

### **CPSC 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisites: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **CREATIVE WRITING**

*Professor Melanie Almeder; Assistant Professors Mary Hill, Teresa Milbrodt*



The Creative Writing program provides students with the opportunity to explore their experience and their imaginations in depth through writing and reading poetry, fiction, nonfiction, and other genres. Majors will be prepared for life-long enjoyment of reading and writing, as well as for graduate study in creative writing or literature. They will also be prepared for a wide variety of careers requiring excellent writing skills, problem-solving abilities, creativity, and critical thinking, including editing and publishing, journalism, law, public relations, government, social advocacy, and advertising.

The English and Communication Studies Department at Roanoke College houses three majors: Communication Studies, Creative Writing and Literary Studies. See separate listings under Communication Studies, Creative Writing, and Literary Studies for the requirements for the majors and minors in these fields.

The Creative Writing major requires 11 units of work as described below:

**Core Requirements (five units):**

CRWR 215	Creative Writing-Fiction
CRWR 216	Creative Writing-Poetry
CRWR 230	Reading as a Writer
CRWR 330	Forms and Genres
CRWR 412	Senior Seminar

**Workshop Course Electives (two units):** students will take at least two advanced workshop course from the following list:

CRWR 315	Advanced Creative Writing-Fiction
CRWR 316	Advanced Creative Writing-Poetry
CRWR 317	Advanced Creative Writing-Special Topics
CRWR 319	Advanced Creative Writing - Screenwriting

**Literary Studies Electives (four units):** any English 200-level or above, two of which must be at the 300-level or above.

*Prerequisites: Before students enroll in 300-level workshops they must have completed the 200-level workshop in the appropriate genre (215 or 216). Either 215 or 216 will serve as a prerequisite for 317. Unless otherwise stated, 300- or 400-level literature courses require as prerequisites two 200-level literature courses.*

### **Minor in Creative Writing**

A minor in Creative Writing requires six units, including CRWR 215, CRWR 216 and CRWR 230, one advanced workshop course (CRWR 315, 316, or 317), and two 200-level Literary Studies (ENGL) electives.

### **CRWR 116 Social Media Practicum**

A supervised experience as a social media content creator. This course provides practical experience that requires application of academic knowledge and skills in a professional, work-like setting. 30 hours. Graded Pass/Fail. (1/4)  
*Prerequisite: Permission.*

### **CRWR 215 Creative Writing-Fiction**

An introduction to writing the short story. Students will receive responses to their writing from their peers and from the instructor. Students will also read and discuss works by notable fiction writers. (1)

Lecture: 3 hrs./wk.

### **CRWR 216 Creative-Poetry**

An introduction to writing poetry. Students will receive responses to their writing from their peers and from the instructor. Students will also read and discuss works by notable poets. (1)

Lecture: 3 hrs./wk.

### **CRWR 230 Reading as a Writer**

The study of poetry and prose structures in order to analyze how creative works are made. Students will read and discuss works by major authors and will respond by creating original works in multiple genres. In both their reading and writing, students will attend to sentence-level correctness and style, and specific craft elements in prose and poetry such as voice, plot, character, setting, figurative language, and the relations between parts and the whole. (1)

Lecture: 3 hrs./wk.

**CRWR 315 Advanced Creative Writing-Fiction**

Development of writing skills in fiction, building upon introductory creative writing courses. Student will also read and discuss works by notable fiction writers. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CRWR 215.*

**CRWR 316 Advanced Creative Writing-Poetry**

Development of writing skills in poetry, building upon introductory creative writing courses. Students will also read and discuss works by notable poets. (1)

Lecture: 3 hrs./wk.

*Prerequisites: CRWR 216.*

**CRWR 317 Advanced Creative Writing-Special Topic**

Development of writing skills in a designated genre other than poetry and fiction, building upon introductory creative writing courses. Students will also read and discuss works by notable authors in the genre. (1)

Lecture: 3 hrs./wk.

*Prerequisites: CRWR 215 or 216.*

**CRWR 319 Screenwriting**

Introduction to the elements of writing for the screen, including format, character Development, dialogue, narrative structure. (1) (Cross-listed as SCRNR 319)

Lecture: 3 hrs./wk.

**CRWR 330 Forms and Genre**

Advanced study of poetry and prose structures in order to analyze how creative works are crafted. Students will read and discuss works by major authors and will experiment with forms by creating original works in both poetry and prose. Building on work done on craft elements in CRWR 230, this course gives special attention to the broader issues of specific poetry and prose forms and to genre traditions. Note that CRWR 230, 330 sequence must be completed before enrolling in CRWR 412 (1)

Lecture: 3 hrs./wk.

*Prerequisite: CRWR 230 and CRWR 215 or 216.*

**CRWR 405, 406, 407 Independent Study**

Supervised production of a final project, which may be different in kind from those completed for other Creative Writing courses, and may include a student presentation of public reading as well. (1/2, 1, 1/2)

*Prerequisites: CRWR 215, 216 and one from 315, 316, or 317, and permission.*

**CRWR 412 Senior Seminar**

This course draws together students who have previously written and studied poetry, fiction, and perhaps other genres. Discussion will focus on careful reading of significant texts in a variety of genres, periods, and national literatures. In response, students will produce original work in the chosen genre, culminating in the completion of the senior writing project. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CRWR 215, 216, 230, 330 and one from 315, 316, 317.*

**CRWR 416 Internship**

Experience in a field of applied writing through programs such as magazine and book publishing, public relations, government communications, or various aspects of the media. (1)

*Prerequisite: CRWR 215, 216 and one from 315, 316, or 317, and permission.*

**CRWR 495, 496, 497 Honors Project**

A program of independent study culminating in a final project. (1/2, 1, 1/2)

*Prerequisite: Creative Writing 215, 216 and one from 315, 316, or 317. To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and*

department. A minimum GPA of 3.4 in the major is required. Creative Writing 495 Honors Project is prerequisite for 497 Honors Project.

## CRIMINAL JUSTICE

Professor Todd Peppers; Associate Professor Daisy Ball, Coordinator; Assistant Professor Sarah Murray

The B.A. degree with a major in Criminal Justice may be awarded to those students who satisfactorily complete 13 units from the following program:

**A. Criminal Justice – three required units:**

CJUS/POLI/I.R. 209	Research Methods in Public Affairs
CJUS 211	Criminal Justice
CJUS 401	Seminar in Criminal Justice

**B. Political Science – three required units:**

POLI 112	Issues in American Politics
POLI 201	State and Local Government <b>or</b> POLI 270 Public Administration
POLI 250	Politics and Power in American Policymaking

**C. Sociology – three required units:**

SOCI 101	Introduction to Sociology
SOCI 238	Juvenile Delinquency
SOCI 334	Criminology

**D. Electives – four required units:**

**Two from Group I: Policy Studies**

CJUS 213	Criminal Law
CJUS/POLI 214	The Judicial Process
CJUS 215	Criminal Justice Forensics
CJUS/SOCI 240	Inequality in Criminal Justice
CJUS 325	Comparative Law Enforcement
CJUS/SOCI 326	Comparative Corrections
I.R./POLI 233	International Law

**Two from Group II: Related Studies**

BUAD 205	Accounting for Decision Making
CJUS/POLI 216	Criminal Procedure
CJUS 231	Juvenile Justice
INQ 250CH	Chemistry & Crime
POLI 201	State and Local Government
POLI 270	Public Administration
POLI 312	Civil Liberties
PSYC 322	Adolescent Development
PSYC 381	Abnormal Psychology
SOCI 237	Deviant Behavior

Courses from among CJUS 261, 401, 406, 416, 495-497 or one from among INQ 260 PS, HNRS 260PS or INQ 177, 277 or 377 may be used as electives within either groups I or II when they include topics related to Criminal Justice with the approval of the major coordinator.

### **CJUS 106 Research Experience**

Directed experiences conducting research under the supervision of a faculty member. Open to all students (major and non-major). May be repeated once for credit. (1/2)

*Prerequisite: Written application approved by major coordinator.*

### **CJUS 209 Research Methods in Public Affairs**

An examination of the research methodologies and techniques used in the study of public policy and politics. The course emphasizes both qualitative and quantitative methods. The lab focuses on statistical applications. (1)  
(Cross-listed as POLI 209/I.R. 209)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: Sophomore standing, POLI 111 or 112, one other course in the major; or ENST 105; or permission.*

**CJUS 211 Criminal Justice**

An introductory analysis of the criminal justice system in the United States, its structure, processes, and problems. (1)

Lecture: 3 hrs./wk.

**CJUS 213 Criminal Law**

A study of the criminal justice system at work in the courtroom setting, emphasizing the relationship between substantive criminal law, criminal procedure, and the rules of evidence. (1)

Lecture: 3 hrs./wk.

**CJUS 214 The Judicial Process**

An exploration of the politics of the American judicial system. This includes such topics as the structure of courts, selection of judges, actors who participate in the judiciary, judicial behavior, and the civil and criminal varieties of courts. (1) (Cross-listed as POLI 214)

Lecture: 3 hrs./wk.

**CJUS 215 Criminal Justice Forensics**

An introduction to the practices of forensic science in law enforcement and the court system. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 211.*

**CJUS 216 Criminal Procedure**

This course analyzes the pre-trial rights of persons suspected or accused of crime, focusing primarily on those rights found in the Fourth, Fifth, Sixth and Fourteenth Amendments to the U.S. Constitution. (1) (*Cross-listed as POLI 216*)

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 211.*

**CJUS 231 Juvenile Justice**

An examination of the theory, policy, and administration of the juvenile justice system. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One course in CJUS or permission.*

**CJUS 240 Inequality in Criminal Justice**

This course approaches the topic of criminal justice with an intersectional lens in which race, gender, class, and sexuality are analyzed as integral parts of the social construction of "criminality." We will explore the ways in which these social statuses are impacted by and through the criminal justice system. (1) (Cross-listed with SOCI 240)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 101, CJUS 211 or INQ 260SO or permission.*

**CJUS 261 Selected Topics in Criminal Justice**

An examination of selected topics in criminal justice. (1)

Lecture: 3 hrs./wk.

**CJUS 325 Comparative Law Enforcement**

A comprehensive overview of law enforcement using a comparative perspective. The development, mission, organization, and management of law enforcement agencies will be examined. The U.S. system will be analyzed and compared to those of other countries. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 211 or permission.*

**CJUS 326 Comparative Corrections**

An exploration of philosophies, rationales, and models of adult corrections. Historical and existing correctional systems in select countries, e.g., the U.S., Canada, England, France, Japan, Mexico, Sweden, and Russia will be examined. (1) (Cross-listed as SOCI 326)

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 211 or permission.*

### **CJUS 401 Seminar in Criminal Justice**

Advanced, in-depth study of selected topics in criminal justice with emphasis on developing a synthesis from the multi-disciplinary coursework required in the major. (1)

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 209, SOCI 334, either POLI 201 or 270, and a declared Criminal Justice major, or permission.*

### **CJUS 405, 406, 407 Independent Study**

Supervised review of a literature and research project in the area of criminal justice. (1/2, 1, 1/2)

*Prerequisite: A minimum 3.0 major GPA and both major coordinator and instructor permission. CJUS 405 is a prerequisite for CJUS 407.*

### **CJUS 416 Internship**

A supervised placement providing practical experience in an agency relating to criminal justice. (1)

*Prerequisite: A minimum 2.5 major GPA and both instructor and major coordinator permission.*

### **CJUS 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and major coordinator. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **CURRICULAR STUDIES**

*Professor Leslie Murrill; Associate Professor Lisa Stoneman (Chair); Lecturer Karin Kaerwer*

Roanoke College does not offer a major in Curricular Studies. Courses in Curricular Studies are designed for students majoring in Elementary Education or Education Studies.

### **CLST 231 Literature and Language**

Examination of literature for children and adolescents. The course explores oral and written language, visual forms and literary elements, while fostering an appreciation for a wide variety of literature. Students will respond to books critically and creatively. (1)

Lecture: 3 hrs./wk.

### **CLST 241 Mathematical Concepts in Elementary Education**

Study of Mathematical concepts in Elementary education with an emphasis on National and State Mathematics Standards. The course will require students to deepen their conceptual and procedural understanding in the area of Numbers/Operations, Algebra, Geometry, Measurement, Data Analysis/Probability and Problem solving. (1)

Lecture: 3 hrs./wk.

## **DATA SCIENCE**

*Associate Professor Durrell Bouchard, Program Coordinator*

Data science is an interdisciplinary field that lies at the intersection of mathematics, statistics, computer science, and other partner disciplines such as business or engineering. The program emphasizes data collection, storage and management, analysis, and data inference while developing skills in programming, quantitative analysis, communication, and teamwork. Our program also allows students to choose a focusing track and prepares graduates for both the workforce and graduate school.

A Bachelor of Science degree with a major in data science requires the satisfactory completion of 13 courses as outlined below:

### **Data and Computer Science Courses (6 units)**

CPSC 120	Programming
DATA 170	Exploring Data
DATA 248	Data Visualization

**Choose one of:**

DATA 350	Databases for Data Science or
CPSC 350	Databases and Web Programming
DATA 480	Practicum in Data Science I

**One of:**

DATA 416	Internship or
DATA 490	Practicum in Data Science II

**Mathematics and Statistics (3 units)**

**One of:**

INQ 240	Statistical Reasoning or
STAT 210	Statistical Methods I
STAT 220	Statistical Methods II
MATH 121	Calculus I

**Focusing Area (4 units, choose one track)**

**Technical Track (complete all four)**

CPSC 170	Fundamentals of Computer Science
CPSC 465	Machine Learning
MATH 131	Discrete Mathematics
STAT 304	Applied Regression Analysis

**Applied Track (complete four)**

BUAD 205	Accounting for Decision-Making
BUAD 218	Information System
BUAD 248	Business Analytics

**one of:**

BUAD 260	Topics in Business Administration (with coordinator approval)
BUAD 342	Corporate Finance
BUAD 406	Independent Study and Research (with coordinator approval)
ECON 261	Topics in Economics (with coordinator approval)
ECON 348	Introduction to Econometrics
PHST/PHYS 260	Modeling Public Health

Students interested in pairing the Data Science course courses with a different set of focus area classes should discuss their plan and needs with the program coordinator.

**DATA 170 Exploring Data**

This course explores the use of various machine learning techniques to discover meaningful information in large data sets. Students will develop skills to explore, format, manipulate, analyze, predict, and visualize data. Students will use these skills to make predictions from a large data set. This course is for students who want to acquire skills to use machine learning to analyze big data. (1)

Lecture: 3 hrs./wk.

*Prerequisite:* CPSC 120.

**DATA 248 Data Visualization**

An introduction to data visualization, key design principles, and techniques for interactivity visualizing economic data using industry-leading software. (Cross-listed as ECON 248.) (1)

Lecture: 3 hrs./wk.

*Prerequisite:* INQ 240, HNRS 240, or STAT 210.

**DATA 350 Databases for Data Science**

Analyzing large datasets requires efficient storage of and access to information provided by a database system. This course provides an introduction to the use of databases in the context of data science applications. Topics include relational algebra, database architecture, the query language SQL, NoSQL databases, databases design, and cloud

storage. Students will put knowledge and skills gained to use by designing and writing software to analyze a large database. (1)

Lecture: 3 hrs.

*Prerequisite: DATA 170.*

### **DATA 405, 406, 407 Independent Study and Research**

Selected topics in data science carried out under the direction of a faculty member. (Enrollment with the approval of the Program Coordinator and Chair of the faculty mentor's department.) (1/2, 1, 1/2)

### **DATA 416 Internship**

Field placement providing practical experience and training in areas in which data science is applied. These areas may include industry, government agencies, educational institutions, insurance companies, and a variety of private enterprises. (1) 120 hours on site.

*Prerequisite: Permission.*

### **DATA 480 Practicum in Data Science I**

Students will bring together the skills and concepts acquired during the data science program to explore data sets from a topic of interest. After selecting their topic, under the guidance of the instructor and their peers, students will develop a formal proposal of study for using those data sets, including questions of interest. The instructor and other classmates will serve as sounding boards while time is spent analyzing the data, and students will present results multiple times during the semester before the full project is defended. (1)

Lecture: 3 hrs./wk.

*Prerequisite: DATA 248 and DATA 350.*

### **DATA 490 Practicum in Data Science II**

This project-based practicum provides students with the opportunity to gain real-world experiences working with industry partners. In groups, students will gain further analytics experience and use data science to identify, define, and analyze problems of interest to out external partners. (1)

Lecture: 3 hrs./wk.

*Prerequisite: DATA 480.*

### **DATA 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. (1/2, 1, 1/2)

*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee of three faculty members. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project.*

## **DIGITAL LITERACY AND APPLICATIONS**

*Associate Professor Leslie Warden, Assistant President for Curriculum and Advising, Coordinator*

Roanoke College does not offer a major in Digital Literacy and Applications.

The credential that Roanoke College offers in Digital Literacy and Applications is designed to complement any major at the College; completing courses in this credential will allow you to gain skills beneficial to living and working in a digital world. These skills combine with your liberal arts major to match the qualifications most often needed for that first post-college job. While simply completing a few of these skills-based courses will already help set you part from others, completing the credential will allow you to connect your newly-acquired skills to your major, minor, or concentration by using these skills for that program.

The credential in Digital Literacy and Applications requires the successful completion of 2 units of coursework and an applied project, research, or internship, as follows:

- ☐ Complete four one-half unit DGTL courses; up to one unit of this requirement may be substituted by non-DGTL courses from any discipline for which digital applications or literacy are a primary focus. Approval of any substitution will be done by the credential coordinators.
- ☐ Complete an applied project, perform research, or complete an internship, worth at least ½ unit, in your major, minor, or concentration that uses the skills acquired from at least one DGTL course (this need

not be in addition to your major, minor, or concentration requirements); approval of the project, research, or internship in order to meet this requirement is by a credential coordinator in that major, minor or concentration's division.

Note that each DGTL course is a ½ unit course; in addition, during a regular fall or spring semester, most DGTL courses meet only for either the first half or second half of the semester. Each DGTL course is graded either pass or fail, and concludes with either a final project or final exam.

### **DGTL 111 Spreadsheets**

This course explores the fundamentals concepts and provides intensive preparation in the use and application of electronic spreadsheets. (1/2) (May not be taken for credit if BUAD 218 has been completed.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

### **DGTL 112 Introduction to Database Applications**

This course provides an introduction to the popular database application used in a wide variety of contexts, Microsoft Access. (1/2) (May not be taken for credit if BUAD 218 has been completed.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

### **DGTL 121 Introduction to Coding**

Anyone can learn how to use a computer program to help solve problems or to be more efficient. But only people who know how to code can create new programs. In this course students will learn computer coding so that they can give instructions to a computer to solve problems. (1/2) (May not be taken for credit if CPSC 120 or higher has been completed.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

### **DGTL 131 Using Statistical Software: SPSS**

This class provides students with practical experience using the statistics software SPSS to analyze data and test hypotheses. Students will also use SPSS to generate professional graphical displays and afterwards will create written reports of findings. (1/2) (May not be taken for credit if PSYC 204 has been completed; only one of DGTL 131, 132, or 133 may count toward the credential.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

### **DGTL 132 Using Statistical Software: R**

This class provides students with practical experience using the statistics software R to analyze data and test hypotheses. Students will also use R to generate professional graphical displays and afterwards will create written reports of findings. (1/2) (Only one of DGTL 131, 132, or 133 may count toward the credential.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

### **DGTL 133 Using Statistical Software: SAS**

This class provides students with practical experience using the statistics software SAS to analyze data and test hypotheses. Students will also use SAS to generate professional graphical displays and afterwards will create written reports of findings. (1/2) (Only one of DGTL 131, 132, or 133 may count toward the credential.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

### **DGTL 141 Digital Photography**

This course is a hands-on introduction to using a digital camera in non-automatic mode. The course focuses on the basics of shooting photographs in natural light for the needs of media professionals, including landscape photography, candid shots, and event photography. Students will also learn how to perform basic images processing on a computer and produce an e-portfolio of photographs. (1/2)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.



*Prerequisite: Sophomore standing.*

### **DGTL 142 Video Production**

This course introduces students to the primary elements of video production. Students will learn basic video/cinematography techniques and terminology as well as obtain a basic video and audio production skillset. (1/2) (May not be taken for credit if COMM 311 has been completed.)

Lecture: 3 hrs./wk., 6.5 weeks or 1.5 hrs./wk., 13 weeks.

*Prerequisite: Sophomore standing.*

## **DISABILITY STUDIES**

*Assistant Professor Teresa Milbrodt and Lecturer Frances McCutcheon, Coordinators*

A concentration in Disability Studies offers students the opportunity to examine issues in disabilities from the theoretical, cultural, and lived-experience perspectives. Students will examine the historical perspectives and experiences of individuals with disabilities, synthesize connections between their major, minor, or career field, and disability; and develop solutions in the student's field or community to improve the lived experience of individuals with disabilities. Student from any major may graduate with a concentration in Disability Studies.

***The concentration requires 5 units:***

***One unit focused on Disability Theory. Select from:***

PHST 205	Disability Studies and Theory
PSYC 328	Developmental Disabilities (Prerequisite: PSYC-101 or INQ-260PY or HNRS-260PY)

***One unit focused on Lived Experience. Select from:***

POLI 256 Health Policy (Prerequisite: POLI-212 or PHST-201) or,  
Additional disciplinary courses, special topics courses, INQ and Intensive Learning courses, and Honors courses that center the experiences of people with disabilities and with permission of the program coordinators. Examples include "INQ-177: Differ-ability or Disability" or "INQ-300: Autism".

***One unit of Internship or Independent study, serving as the capstone course.*** The internship or independent study may be in any discipline, but it must relate in some way to the experiences of people with disabilities. Requires pre-approval by the coordinators.

***Two units chosen from electives below or courses above not used to satisfy the theory or lived experience requirements.*** Note that most of these courses have prerequisites, and several are INQ courses. Students should select their INQ courses strategically so they may be incorporated into their course of study for the concentration.

***Electives: (A \* indicates that the course has one or more prerequisites)***

BIOL 315	Genetics*
BIOL 420	Developmental Biology*
BUAD 237	Employment Law
BUAD 274	Human Resource Management
ECON 227	Health Economics*
EDUC 250	Teaching and Learning
EDUC 300	The Inclusive Classroom*
EDUC 371	Field Experience – Elementary Reading Instruction*
PEAC 201	Peace and Justice Studies
PEAC 301	Seminal Figures and Issues*
PHIL 223	Ethics and Medicine
PHST 201	Health and Society: Introduction to Public Health
PHST 302	Social Determinants of Health*
PSYC 221	Developmental Psychology*
PSYC 231	Biological Psychology*
PSYC 330	Principles of Neuroscience*
PSYC 381	Abnormal Psychology*

SOCI 201            Social Inequality★  
SOCI 325            Medical Sociology★

Additional disciplinary courses, special topic courses, INQ and Intensive Learning courses, and Honors courses where applicable and with permission of the program coordinators.

## **EAST ASIAN STUDIES**

*Professor Stella Xu, Coordinator*

Students from any major interested in developing a specialization in East Asia may earn a concentration in East Asian Studies by successfully completing (with a cumulative grade point average of at least 2.0), either in an approved program in East Asia or on campus, at least six units. Of these units, two must be in an East Asian language (Chinese, Japanese, or Korean), one must be in East Asian History, and one must be in Asian politics. The other two units are to be taken from relevant courses on or off campus, including special topics classes. One unit may be taken from an international perspective (see East Asian Studies advisor for list of courses available). An internship or independent study focused on an East Asian topic in any department is also advisable; the topic must be approved by the East Asian Studies advisor as well as the relevant department. Interested students should contact the East Asian Studies advisor as soon as possible for help in identifying appropriate courses either on campus or overseas.

1. **Two units in a language (required)**  
**Chinese, Japanese, or Korean**
2. One unit in East Asian History (required); in addition, up to two other units may be taken in East Asian history.  
HIST 281                                      Early East Asia  
HIST 282                                      Modern East Asia
3. **One unit in Asian Politics (required)**  
I.R./POLI 222                                Comparative Political Systems: Asia
4. **One unit from an international perspective (optional)**  
BUAD 211                                      Introduction to Global Management  
ECON 247                                      International Trade and Finance  
I.R./POLI 231                                International Politics  
I.R./POLI 232                                International Organizations  
RELG 130                                      Living Religions of the World
5. **One unit in an independent study/internship (optional)**  
NOTE: Either in any discipline as long as the topic is East Asian.
6. **One unit from Selected Topics (optional)**  
NOTE: Any selected topics course which focuses on Asia.

## **ECONOMICS**

*Professors Alice Kassens (Associate Chair), Edward Nik-Khah*

The major in Economics requires eleven (11) units in economics as follows: Economics 121, 122, 321, 322, 347, 348, 461, and any four economics courses at the 200 level or higher (excluding Economics 416 – Internship). Mathematics 111 or 121 is a prerequisite for Economics 321 and 322, and INQ/HNRS 240 is a prerequisite for Economics 348.

Admission to the BA program in Economics requires the approval of the department chairperson. An application should be submitted as soon as a student becomes interested in the major and shows evidence of possessing the quantitative and analytical skills required to satisfactorily complete this major. Economics 120 cannot be used for the Economics or Business Administration majors. Economics 120 can serve as a prerequisite for Economics 227, 257, and for Business Administration 233, for non-majors only.

### **Minor in Economics**

The minor in Economics requires seven units in economics as follows: Economics 121 and 122, any three of the 300 level courses (321, 322, 347, and 348), and any two economics courses at the 200 level or higher.

Mathematics 111 or 121 is a prerequisite for Economics 321 and 322, and INQ/HNRS 240 is a prerequisite for Economics 348.

### **ECON 120 Introduction to Economics**

A course introducing the student to contemporary economic discourse, with an emphasis on the pricing mechanism, competitive and monopolistic markets, poverty and inequality, national income, and unemployment. (This course is designed for students not majoring in economics or business administration and does not count towards either program. Students who have successfully completed either Economics 121 or 122 may not enroll.) (1)

Lecture: 3 hrs./wk.

### **ECON 121 Principles, Micro**

An introduction to contemporary economic discourse, with an emphasis on the pricing mechanism, production, competitive and imperfectly competitive markets, game theory, poverty and inequality, public economics, and global trade. (1)

Lecture: 3 hrs./wk.

### **ECON 122 Principles, Macro**

An introduction to contemporary economic discourse, with an emphasis on aggregate concepts and issues such as unemployment, inflation, growth and international trade and the role of government in dealing with these issues. (1)

Lecture: 3 hrs./wk.

### **ECON 227 Health Economics**

An examination of the production of health and the role of medical services, the determinants of the demand for medical care and the impact of health insurance, the determinants of the supply of medical services, the role of government in promoting health and the financing and delivery of health care, and the impact of behavioral factors on health. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ECON 120 or 121.*

### **ECON 232 Money and Banking**

Money, credit, and the banking system with special emphasis on the role of money as a determinant of economic activity. Attention is also given to international monetary markets. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 121 and 122.*

### **ECON 242 Economics of the Public Sector and its Finance**

An analysis of the relationship between the state and the market, with an emphasis on the role of the state in reducing poverty and inequality, promoting health, safeguarding the environment, addressing corporate power, and financing these activities through effective taxation. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 121 and 122.*

### **ECON 247 International Trade and Finance**

An analysis of the benefits and costs of trade, the impact of trade barriers and controls, the effects of globalization, and the role of money and capital markets in international commerce. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 121 and 122.*

### **ECON 248 Data Visualization**

An introduction to data visualization, key design principles, and techniques for interactively visualizing economic data using industry-leading software. (Cross-listed as DATA 248) (1)

Lecture: 3 hrs./wk.

*Prerequisite: INQ 240, HNRS 240, or STAT 210.*

**ECON 252 The Fed Challenge**

This course is an applied monetary policy course designed to expand the understanding of the Federal Reserve System and its role in the economy. A major focus of the course is the importance of Federal Open Market Committee decisions. Given the economy changes each year, the analysis of topics and potential topics will vary. The course will teach monetary policy and contains an academic competition as a component. *A maximum of two units can be earned toward graduation with only one unit counting toward the Economics major, Economics minor, and Finance concentration.* (1)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 121 and 122, and permission of the instructor.*

**ECON 257 Competition, Monopoly, and Public Policy**

An examination of the role of the state in addressing corporate power. Topics emphasized include collusion, mergers, technology an intellectual property, and the uses of antitrust law and regulation. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ECON 120 or 121.*

**ECON 261 Topics in Economics**

Selected topics involving problems and controversies of a social and political nature. (1)

Lecture: 3 hrs./wk.

**ECON 267 Labor Economics**

Analysis of the short-and long-run aspects of the supply and demand for labor, with attention paid to labor market issues including wage inequality, human capital formation, and unemployment. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ECON 120 or 121.*

**ECON 287 Economics and the Environment**

This course deals with various approaches to the relationship between economic activity and the environment, with an emphasis on examples drawn from various environmental issues and regions in our globalized world. (1)

*Prerequisite: ECON 120 or 121.*

Lecture: 3 hrs./wk.

**ECON 321 Intermediate Theory: Microeconomics**

In-depth coverage of contemporary economic discourse, with an emphasis on the pricing mechanism, competitive and imperfectly competitive markets, game theory, the distribution of income, and public economics. (1)

Lecture: 3 hrs./wk.

*Prerequisites ECON 121 or permission; MATH 111 or 121.*

**ECON 322 Intermediate Theory: Macroeconomics**

An examination of the measurement, analysis, and control of aggregate economic activity, with particular attention to the roles played by government in achieving full employment and price stability. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ECON 122 or permission; MATH 111 or 121.*

**ECON 347 History of Economic Thought**

An examination of the most significant work in the history of economics, including that of the classical political economists and the neoclassicals, as well as present-day developments such as information economics. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ECON 121 and 122 and Junior or Senior Standing in Economics, or permission.*

**ECON 348 Introduction to Econometrics**

An introduction to the statistical methods used in empirical economic research. The objective of the course is to provide both a working knowledge of econometric theory and an applied experience through estimating empirical models using econometric software. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ECON 321 or 322, and INQ/HNRS 240; or permission.*

**ECON 395, 396 Henry H. Fowler Public Policy Seminar**

A seminar taught with a scholar-statesperson that deals with a policy issue of public significance. (Made possible by the Henry H. Fowler Endowment. Open to selected students with department permission.) (1, 1/2)

### **ECON 405, 406, 407 Independent Study**

A program of intensive study in economics carried out under the direction of a member of the departmental staff. (Open to majors with the permission of the department.) (1/2, 1, 1/2)

### **ECON 416 Internship**

Work experience in private or public sector, utilizing analytical tools, and including a student project. (Admission by permission of department. May not be counted toward major credit.) (1)

### **ECON 461 Economics Seminar**

An in-depth investigation of topical issues in economics at the advanced theory level. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Senior standing in Economics or permission.*

### **ECON 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **EDUCATION**

*Professor Leslie Murrill, Associate Professors Jennifer S. McCloud, Lisa Stoneman (Chair), Gary Whitt; Assistant Professor Jonathan McCloud; Lecturer Karin Kaerwer*

Roanoke College's Education program is approved by the Department of Education for the Commonwealth of Virginia and is nationally accredited by the Council for the Accreditation of Educator Preparation (CAEP).

### **Majors**

The Department offers a Bachelor of Science (BS) degree in Elementary Education and Bachelor of Arts (BA) degrees in Art Education, Biology Education, Chemistry Education, Computer Science Education, English Education, French Education, Health and Physical Education, Mathematics Education, Physics Education, Spanish Education, Social Studies Education, Teaching English as a Second Language, Theater Education, and Education Studies.

### **ELEMENTARY EDUCATION**

The major serves the needs of students who intend to pursue a teacher licensure endorsement in PreK-6 Elementary Education. The BS in Elementary Education requires the following courses:

CLST 231	Literature and Language
EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching, Learning & Cognition
EDUC 300	The Inclusive Classroom
EDUC 321	Science Methods PK-8
EDUC 331	Reading and Language Arts Methods PK-8
EDUC 341	Mathematics Methods PK-8
EDUC 361	Social Studies Methods PK-8
EDUC 371	Field Experience in Elementary Reading Instruction and Assessment
EDUC 380	Student Teaching I
EDUC 451	Elementary Curriculum, Instruction and Assessment

### **PK-12 & SECONDARY EDUCATION**

Art Education, Biology Education, Chemistry Education, Computer Science Education, English Education, French Education, Health and Physical Education, Mathematics Education, Physics Education, Spanish Education, Social Studies Education, Teaching English as a Second Language, and Theater Education serve the needs of students who wish to pursue licensure endorsement at the PK-12 and Secondary (6-12) levels.

**CORE REQUIREMENTS – 8 units**

EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching, Learning & Cognition
EDUC 300	The Inclusive Classroom
EDUC 332	Instructional Methods
EDUC 352	Literacy in the Disciplines
EDUC 380	Student Teaching I
EDUC 452	Research & Assessment

**ART EDUCATION – 16 units**

The Art Education BA requires completion of the Core Requirements as well as the following courses in the content area:

ARTH 150	Art, Culture and Society I <b>OR</b> any 200-level ARTH course from corresponding time period
ARTH 151	Art, Culture, and Society II <b>OR</b> any 200-level ARTH course from corresponding time period

***Choose two:***

ART 111	Drawing I
ART 121	Painting I
ART 131	Photography I
ART 151	Basic Design

***Choose one:***

ART 171	Ceramics I
ART 181	Sculpture I

***Choose two:***

ART 211	Drawing II
ART 221	Painting II
ART 231	Photography II
ART 241	Printmaking: Etching and Relief Methods
ART 261	Graphic Design I
ART 271	Ceramics II
ART 281	Sculpture II

***Choose one:***

ART 311	Drawing III
ART 321	Painting III
ART 331	Photography III
ART 341	Printmaking: Silk-Screening and Planographic Methods
ART 361	Graphic Design II
ART 371	Ceramics III
ART 381	Sculpture III

**BIOLOGY EDUCATION - 17 units**

The Biology Education BA requires completion of the Core Requirements as well as the following courses in the content area:

BIOL 110	Exploring Biology
BIOL 180	Exploring Diversity in Biology
BIOL 190	Exploring Unity in Biology
BIOL 315	Genetics
CHEM 111	General Chemistry: Foundations I <b>OR</b> CHEM 117 General Chemistry: Advanced Principles and Applications I
CHEM 112	General Chemistry: Foundations II <b>OR</b> CHEM 118 General Chemistry: Advanced Principles and Applications II
MATH 115	Quantitative Biology
PHYS 102	Introductory Physics for Life Sciences

***Choose One:***

BIOL 235	General Microbiology
BIOL 265	Plant Diversity
BIOL 270	Invertebrate Biology
BIOL 275	Vertebrate Biology
BIOL 280	Animal Biology
BIOL 320	Systems Biology
BIOL 346	Special Topics in Biology
BIOL 365	Plant Anatomy and Physiology

### **CHEMISTRY EDUCATION – 16.5 units**

The Chemistry Education BA requires completion of the Core Requirements as well as the following courses in the content area:

CHEM 111	General Chemistry: Foundations I <b>OR</b> CHEM 117 General Chemistry: Advanced Principles and Applications I
CHEM 112	General Chemistry: Foundations II <b>OR</b> CHEM 118 General Chemistry: Advanced Principles and Applications II
CHEM 221	Organic Chemistry I
CHEM 222	Organic Chemistry II
CHEM 255	Quantitative Chemical Analysis
CHEM 260	Descriptive Inorganic Chemistry
CHEM 341	Biochemistry I
ENSC 101	Environmental Science
PHYS 103	Fundamental Physics I

### **COMPUTER SCIENCE EDUCATION – 16 units**

The computer Science Education BA requires completion of the Core Requirements as well as the following courses in the content area:

CPSC 120	Programming
CPSC 170	Fundamentals of Computer Science
CPSC 250	Data Structures and Algorithms
CPSC 270	Software Engineering and Project Design
CPSC 350	Databases and Web Programming
CPSC 361	Systems Administration
MATH 131	Discrete Mathematics
STAT 210	Statistical Methods I <b>OR</b> STAT 220 Statistical Methods II

### **ENGLISH EDUCATION – 17 units**

The BA in English Education requires completion of the Core Requirements as well as the following courses in the content area:

ENGL 290	Literary Analysis and Research Methods or CRWR 230 Reading as a Writer
ENGL 322	Composition Theory and Practice or WRIT 306 Tutoring Across the Curriculum

ENGL 323	The English Language or ENGL 320 Basic Linguistics
COMM 101	Introduction to Communication Studies or COMM 220 Public Speaking
PUBL 225	Editing, Grammar, and Style
<b>Choose two:</b>	
ENGL 203	Foundations in Oral and Performance Traditions
ENGL 212	Connections: Social Justice and Literature
ENGL 213	Connections: Gender and Literature
ENGL 214	Connections Community and Literature
<b>Choose two:</b>	
ENGL 308	Focus: Author Studies
ENGL 332	Focus: Shakespeare
ENGL 350	Focus: Genre Studies
ENGL 356	Focus: Film Studies

### **FRENCH EDUCATION – 16 units**

The French Education BA requires completion of the Core Requirements as well as the following courses in the content area:

*NOTE:* In regard to Core Requirements, EDUC 332 Instructional Methods may be replaced by FREN 341/LANG 341 Methods of Teaching Foreign Languages.

FREN 202	Intermediate French II
FREN 301	French Conversation <b>OR</b> FREN 303 Oral Expression and Phonetics
FREN 302	French Composition
FREN 338	Second Language Learning: Deciphering Myths from Facts (or LANG/SPAN 338)

**Choose One:**

FREN 311	Building Nation: French Civilization and Culture I
FREN 312	A Nation Emerges: French Civilization & Culture II
FREN 315	Francophone Societies

**Choose three:**

FREN 303	Oral Expression and Phonetics
FREN 312	A Nation Emerges: French Civilization & Culture II
FREN 315	Francophone Societies
FREN 330	Studies in French Translation
FREN 380	Special Studies in French Language, Literature, and Culture
FREN 420	The French Poetic Tradition
FREN 421	The Medieval World
FREN 431	Renaissance Vision and Voices
FREN 441	Political & Civil Order 17 <sup>th</sup> - and 18 <sup>th</sup> -Century French Literature
FREN 451	Romanticism, Realism & Naturalism in 19 <sup>th</sup> -Century Literature
FREN 461	The Modern Novel and Short Story
FREN 480	Advanced Studies in French Language, Literature, and Culture

In order to promote fluency, majors are required to complete an institutionally approved language immersion experience. This may be met through a May term travel course, a summer or semester abroad, or another approved immersion program.

### **HEALTH & PHYSICAL EDUCATION – 19 units**

The Health & Physical Education BA requires completion of the Core Requirements listed below as well as the following courses in the content area.



*NOTE:* The CORE is slightly different from other Education majors due to pedagogical offerings within the HHP department.

### **CORE REQUIREMENTS**

EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching & Learning
EDUC 352	Literacy in the Disciplines
EDUC 380	Student Teaching I
EDUC 452	Research & Assessment

### **CONTENT AREA**

HEXS 195	Introduction to Health and Exercise Science (1/2 unit)
HEXS 201	Motor Control & Learning
HEXS 208	Exercise Testing and Prescription (meets competencies for EDUC 300)
HEXS 210	Individual and Team Sport Activities
HEXS 301	Personal and Community Health
HEXS 316	Nutrition
HEXS 320	Strength and Conditioning
HEXS 325	Exercise Physiology
HHP 410	Physical Education Methods and Materials: PK-12 (meets competencies for EDUC 332)
BIOL 106	Human Biology
BIOL 230	Human Anatomy and Physiology I

### **MATHEMATICS EDUCATION – 17 units**

The Mathematics Education BA requires completion of the Core Requirements as well as the following courses in the content area:

CPSC 120	Programming <b>OR</b> CPSC 150 Scientific Computing <b>OR</b> ENGS 120 Introduction to Robotics
MATH 121	Calculus I
MATH 122	Calculus II
MATH 131	Discrete Mathematics
MATH 201	Linear Algebra
MATH 278	Foundations of Geometry
MATH 361	Abstract Algebra
STAT 210	Statistical Methods I <b>OR</b> INQ/HNRS 240 Statistical Reasoning

#### ***Choose one:***

MATH 311	Operations Research
MATH 321	Vector Calculus
MATH 331	Differential Equations
STAT 303	Experimental Design
STAT 304	Applied Regression Analysis

### **PHYSICS EDUCATION – 16.5 units**

The Physics Education BA requires completion of the Core Requirements as well as the following courses in the content area:

MATH 121	Calculus I
MATH 122	Calculus II
ENGS 191	Engineering Foundations
PHYS 190	Physics & Engineering Colloquium (1/2 unit)
PHYS 201	Newtonian Mechanics

PHYS 202	Electricity and Magnetism
PHYS 203	Atomic, Molecular, & Optical Physics
PHYS 310	Experimental Analysis
PHYS 490	Senior Seminar: Physics Capstone

### **SOCIAL STUDIES EDUCATION – 18 units**

The Social Studies Education BA requires completion of the Core Requirements as well as the following courses in the content area:

ECON 121	Principles, Micro <b>OR</b> ECON 122 Principles, Macro
GEOG 110	World Geography
HIST 120	Medieval World
HIST 130	Early Modern World History
HIST 140	The Modern World
HIST 200	United States History
POLI 111	Issues in Global Politics
POLI 112	Issues in American Politics
POLI 201	State and Local Government
RELG 130	Living Religions of the World

### **SPANISH EDUCATION – 16 units**

The Spanish Education BA requires completion of the Core Requirements as well as the following courses in the content area:

*NOTE:* In regard to Core Requirements, EDUC 332 Instructional Methods may be replaced by SPAN 341/LANG 341 Methods of Teaching Foreign Languages.

SPAN 303	Spanish for Written Expression
SPAN 304	Spanish for Oral Communication
SPAN 311	Civilization and Culture: Spanish Civilization and its Plural Nationalities
SPAN 312	Civilization and Culture: Latin America and its Native and Hybrid Cultures
SPAN 320	Literary Perspectives: Spain <b>OR</b> SPAN 323 Literary Perspectives: Latin America
SPAN 338	Second Language Learning: Deciphering Myths from Facts (or FREN/LANG 338)
SPAN 401	Advanced Conversation and Grammar Review
SPAN 450	Seminar

In order to promote fluency, majors are required to complete an institutionally approved language immersion experience. This may be met through a May term travel course, a summer or semester abroad, or another approved immersion program.

### **TEACHING ENGLISH AS A SECOND LANGUAGE – 15 units**

The Teaching English as a Second Language BA requires completion of the Core Requirements as well as the following courses in the content area:

*NOTE:* In regard to Core Requirements, EDUC 332 Instructional Methods may be replaced by SPAN/FREN 341/LANG 341 Methods of Teaching Foreign Languages.

Two (2) Modern Language courses, 202 or above ( <i>May be in different languages</i> )	
ENGL320	Basic Linguistics (or ANTH/LING 320)
EDUC 331	Reading and Language Arts Methods PK-8
EDUC 371	Field Experience in Elementary Reading Instruction and Assessment
PUBL 225	Editing, Grammar and Style or SPAN 401 Advanced Conversation and Grammar Review
LANG 338	Second Language Learning: Deciphering Myths from Facts (or FREN/SPAN 338)

## **THEATER EDUCATION – 16.5 units**

The Theater Education BA requires completion of the Core Requirements as well as the following courses in the content area:

*NOTE:* In regard to Core Requirements, EDUC 332 Instructional Methods may be replaced by THEA 450 Play Direction.

THEA 101	Fundamentals of Theater
THEA 103	Theater Lab (six ¼ units)
THEA 112	Acting I
THEA 125	Stagecraft
THEA 212	Acting II or THEA 215 Voice & Diction
THEA 225	Scene Design or THEA 325 Lighting Design
THEA 240	Theater History I
THEA 241	Theatre History II
THEA 450	Play Direction

## **EDUCATION STUDIES 11 units**

The Bachelor of Arts degree in Education Studies provides a pathway for students who want to pursue an education-related field and/or graduate study that does not include the traditional classroom. Students will utilize the liberal arts disciplines within a framework of education theory and pedagogy to develop interpretive, normative, and critical perspectives on the field of education. The interdisciplinary content is organized into 2 strands: 1.) Creative Expression and Literacy and 2) Community Education and Social change.

### ***Required core courses (5 units):***

EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching, Learning & Cognition
EDUC 300	The Inclusive Classroom
EDUC 451	Elementary Curriculum, Instruction, & Assessment
	<b>OR</b> EDUC 452 Research & Assessment

### ***Choose two:***

CLST 231	Language & Literacy
CLST 241	Mathematical Concepts in Elementary Education
EDUC 260, 261	Selected Topics in Education
EDUC 321	Science Methods PK-8
EDUC 331	Reading & Language Arts Methods PK-8
EDUC 332	Instructional Methods
EDUC 341	Mathematics Methods PK-8
LANG/SPAN/FREN 241	Methods of Teaching Foreign Languages
EDUC 352	Literacy in the Disciplines
EDUC 361	Social Studies Methods PK-8
EDUC 371	Field Experience in Reading
EDUC 380	Student Teaching I
EDUC 405, 406, 407	Independent Study & Research (up to 1 unit)
HHP 410	Health and PE Methods and Materials
EDUC 495, 496, 497	Honors Project (up to 1 unit)

*Students should consult with the program chair for approval of INQ or special topics courses, internships, independent studies, or research credit that may count toward the major.*

## **STRANDS**

***Choose 4 units from one strand*** (at least 2 units must be at or above the 200-level. Limitations within groups are noted below).

### **Creative Expression and Literacy**

This strand serves those interested in the creative arts and/or literacy development, e.g. fine arts education, authoring/illustrating works for children and adolescents, general literacy, teaching English Learners in non-school settings, teaching internationally, librarianship, educational writing, curriculum development, or educational publishing.

ART 111-181	Drawing I, Painting I, Photography I, Two-dimensional Design, Ceramics, or Sculpture (up to 1 unit)
ART 211-281	Drawing II, Painting II, Photography II, Printmaking, Graphic Design I, Ceramics II, or Sculpture II (up to 1 unit)
ART 311-381	Drawing III, Painting III, Photography III, Printmaking, Graphic Design II, Ceramics III, or Sculpture III (up to 1 unit)
ARTH 150	Art, Culture & Society I or ARTH 151 Art, Culture & Society II
CRWR 215	Creative Writing-Fiction or CRWR 216 Creative Writing-Poetry
CRWR 315	Advanced Creative Writing-Fiction or CRWR 316 Advanced Creative Writing-Poetry
CRWR 330	Forms and Genres
ENGL 202-290	Foundations in Fiction, Foundations in Oral & Performance Traditions, Foundations in Poetry, Connections: Social Justice and Literature, Connections: Gender and Literature, ENGL 214 Connections: Community and Literature, Special Topics, Foundations in Film or ENGL 290 Research Methods and Critical Perspectives (up to 2 units)
ENGL 308-356	Focus: Author Studies, Basic Linguistics, Advanced Grammar and Style, The English Language, Focus: Shakespeare, Focus: Genre Studies, or Focus: Film Studies (up to 3 units)
FREN/GRMN 301	Conversations and Composition, ITAL/JAPN 306 Advanced Studies, or SPAN 304 Spanish for Oral Communication
FREN 302	Composition or SPAN 303 Spanish for Written Expression
FREN 311	Building a Nation: French Civilization and Culture I or FREN 312 A Nation Emerges: French Civilization and Culture II
GRMN 311	German Civilization and Culture or GRMN 314 The Cultures of German-Speaking Countries
SPAN 311	Spanish Civilization and its Plural Nationalities or SPAN 312 Latin America and its Native and Hybrid Cultures
FREN 315	Francophone Societies or GRMN 315 The Post-war Germanies or SPAN 315 Contemporary Issues
FREN/LANG/SPAN 338	Second Language Learning: Deciphering Myths from Facts
GNDR 150	Intro to Gender and Women's Studies
MUSC 150	Fundamentals of Music
MUSC 240	Music in Culture
MUSC 251	Music Theory I
MUSC 375	Popular Music
THEA 101	Fundamentals of Theater or THEA 112 Acting I or THEA 125 Stagecraft
THEA 103	Theater Lab or THEA 203 Intermediate Theater Lab (up to 1 unit)
THEA 221	Acting II or THEA 225 Scene Design
THEA 240	Theater History I or THEA 241 Theater History II

### **Community Education & Social Change**

This strand serves those interested in community education and/or advocacy, e.g. policy, consulting, school counseling, museum education, recreation management, religious education, or non-profit leadership.

ARTH/ANTH/HIST 218	Introduction to Archeology or ANTH 101 Introduction to Cultural Anthropology
ARTH 224	The Encyclopedic Museum and Archeological Ethics
ANTH 380	Creating Community Change
BUAD 254	Organizational Behavior and Management
BUAD 264	Foundations of Leadership
ENSC 101	Environmental Science or ENST 103 Introduction to Environment and Culture or ENST 105 Introduction to Environment and Society

ENST 212	Environmental Ethics
ENST 220	Conservation Science
GNDR 150	Introduction to Gender and Women's Studies
HHP 210	Individual and Team Activities
HEXS 301	Personal and Community Health
HIST 205	Introduction to Public History or HIST 209 Introduction to Digital History
HIST 206	Historical Archeology or HIST 208 Archeology of Slavery
I.R./POLI 352	Human Rights Policy
PEAC 201	Introduction to Peace and Justice Studies
PEAC 301	Seminal Figures and Issues
POLI 246	Justice, Revolution, and the Good Society
PSYC 221	Developmental Psychology
PSYC 321	Child Development
PSYC 322	Adolescent Development
RELG 130	Living Religions of the World
RELG 225	The Religious Life of Young Adults
SOCI 224	Race and Ethnicity
SOCI 229	Sociology of Sex and Gender
SOCI 238	Juvenile Delinquency
SPMT 190	Introduction to Sport Management

### **MINORS IN EDUCATION**

Students who are not majoring in Education may seek a minor in the following areas:

#### **ELEMENTARY EDUCATION (PK-6)**

The minor in Elementary Education requires six units:

CLST 231	Literature and Language
EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching, Learning & Cognition
EDUC 300	The Inclusive Classroom

***Choose one:***

EDUC 321	Science Methods PK-8
EDUC 331	Reading & Language Arts Methods PK-8
EDUC 341	Mathematics Methods PK-8
EDUC 361	Social Studies Methods PK-8

#### **MIDDLE EDUCATION (6-8)**

A minor in Middle Education requires six units:

EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching, Learning & Cognition
EDUC 300	The Inclusive Classroom

***Choose one:***

EDUC 321	Science Methods PK-8
EDUC 331	Reading & Language Arts Methods PK-8
EDUC 341	Mathematics Methods PK-8
EDUC 361	Social Studies Methods PK-8

***Choose one:***

EDUC 332	Instructional Methods <b>OR</b> INQ 277 Middle School Immersion
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EDUC 352 Literacy in the Disciplines

## SECONDARY EDUCATION (6-12)

A minor in Secondary Education requires six units:

EDUC 210	Principles of Education
EDUC 240	Education Technology
EDUC 250	Teaching, Learning & Cognition
EDUC 300	The Inclusive Classroom
EDUC 332	Instructional Methods
EDUC 352	Literacy in the Disciplines

## TEACHER LICENSURE ENDORSEMENT AREAS

The Education Department offers teacher licensure through the Virginia Department of Education with endorsements in the following areas:

### Elementary Education (PK-6)

Students seeking an endorsement in Elementary Education must complete an undergraduate major in Elementary Education and the following additional requirements:

CLST 241	Mathematical Concepts in Elementary Education
EDUC 460	Strategic Classroom Management ( <i>concurrent with EDUC 471</i> )
EDUC 471	Student Teaching II – Grades PK-6
ENSC 101	Environmental Science
HIST 110	Ancient World <b>OR</b> HIST 120 Medieval World
HIST 200	United States History
INQ/HNRS110	Intellectual Inquiry/Honors Seminar
INQ/HNRS240	Statistical Reasoning <b>OR</b> STAT 210 Statistical Methods I

Any one-unit lab science course in BIOL, CHEM, or PHYS or INQ/HNRS 250 Scientific Reasoning I

### Middle Education (6-8)

Students seeking an endorsement in middle education may complete any of the Education degrees. EDUC 210, 240, 250, 300, and 380 are required by all four endorsement areas. Additional courses in each Middle endorsement area are listed.

#### English

CLST 231	Literature and Language
EDUC 331	Reading and Language Arts Methods PK-8
EDUC 332	Instructional Methods <b>OR</b> INQ 277 Middle School Immersion
EDUC 352	Literacy in the Disciplines
EDUC 460	Classroom Management ( <i>concurrent with EDUC 473</i> )
EDUC 473	Student Teaching II, Grades 6-8
ENGL 321	Advanced Grammar and Style
ENGL 323	The English Language
INQ/HNRS 110	Intellectual Inquiry/Honors Seminar

**Choose two:**

ENGL 203	Foundations in Oral and Performative Traditions
ENGL 212	Connections: Social Justice and Literature
ENGL 213	Connections: Gender and Literature
ENGL 214	Connections: Community and Literature

*One additional ENGL electives at 200 level or above*

#### History and Social Sciences

EDUC 331	Reading and Language Arts Methods PK-8
EDUC 332	Instructional Methods <b>OR</b> INQ 277 Middle School Immersion
EDUC 352	Literacy in the Disciplines
EDUC 460	Classroom Management ( <i>concurrent with EDUC 473</i> )

EDUC 473	Student Teaching II, Grades 6–8
HIST 110	Ancient World <b>OR</b> HIST 120 Medieval World
HIST 130	Early Modern World History <b>OR</b> HIST 140 The Modern World
HIST 200	United States History
POLI 112	Issues in American Politics
POLI 201	State and Local Government
Any one-unit course in ECON, POLI, PSYC or SOCI or INQ/HNRS 260 Social Scientific Reasoning	

### **Mathematics**

EDUC 331	Reading and Language Arts Methods PK–8
EDUC 332	Instructional Methods <b>OR</b> INQ 277 Middle School Immersion
EDUC 352	Literacy in the Disciplines
EDUC 460	Classroom Management ( <i>concurrent with EDUC 473</i> )
EDUC 473	Student Teaching II, Grades 6–8
MATH 121	Calculus I
MATH 122	Calculus II
MATH 131	Discrete Mathematics
MATH 201	Linear Algebra
MATH 278	Foundations of Geometry
STAT 210	Statistical Methods I <b>OR</b> INQ/HNRS240 Statistical Reasoning

### **Science**

EDUC 321	Science Methods PK–8
EDUC 331	Reading and Language Arts PK–8
EDUC 332	Instructional Methods <b>OR</b> INQ 277 Middle School Immersion
EDUC 352	Literacy in the Disciplines
EDUC 460	Classroom Management ( <i>concurrent with EDUC 473</i> )
EDUC 473	Student Teaching II – Grades 6–8
ENSC 101	Environmental Science
BIOL 106	Human Biology
CHEM 111	General Chemistry: Foundations I <b>OR</b> CHEM 117 General Chemistry: Advanced Principles and Applications I
PHYS 102	Introductory Physics for Life Science <b>OR</b> PHYS 103 Fundamental Physics I
INQ 250AS	Astronomy Controversies
One additional unit from BIOL, CHEM, ENSC or PHYS	

### **Secondary Education (6–12):**

Teacher licensure endorsement at the secondary level is gained through completion of a major in one of the following areas: Biology Education, Chemistry Education, Computer Science Education, English Education, Mathematics Education, Physics Education, or Social Studies Education (History & Social Science).

### **PreK–12 Education:**

Teacher licensure endorsement at the PK–12 level is gained through completion of a major in one of the following areas: Art Education (Visual Art), French Education, Health & Physical Education, Spanish Education, Teaching English as a Second Language, or Theater Education (Theatre Arts).

## **TEACHER LICENSURE PROGRAM ADMISSIONS REQUIREMENTS**

There are selective admission requirements for the Teacher Licensure Endorsement Programs. Points at which students must meet specific requirements include:

### **Registration for EDUC 380 Student Teaching I**

- ☐ VCLA successfully completed by Nov. 1 or Apr. 1 for placement in the following semester
- ☐ EDUC 250 completion
- ☐ One 300-level EDUC course completion
- ☐ 2.5+ GPA
- ☐ Departmental Approval

### **Registration for EDUC 471/472/473/474: Student Teaching II**

- ☐ VCLA successfully completed by Nov. 1 or Apr. 1 for placement in the following semester
- ☐ Praxis II (in relevant content area) Successfully completed by Nov. 1 or Apr. 1 for placement in the following semester
- ☐ Credit or competency for EDUC 380
- ☐ Departmental approval
- ☐ 2.5+ GPA
  - Students seeking the PK-6 endorsement must achieve a 2.5 GPA overall and in the Elementary Education major.
  - Students seeking a 6-8, 6-12 or PK-12 endorsement must achieve a 2.5 GPA overall, in the Education major, and endorsement area content courses.

### **Formal Admission to Teacher Endorsement Program**

- VCLA successfully completed
- 2.5+ GPA
- Admission to EDUC 380 or EDUC 471/472/473/474

### **Additional Information:**

- Applications for field experience courses (EDUC 371, 380, and 471/472/473/474) are due by March 1 (fall placement) and October 1 (spring placement). All prerequisites for these courses must be verified by the Education Department by the appropriate deadlines.
- GPA requirements for field experience courses refer to the grade point average earned at Roanoke College.
- School divisions within the educational community may require a criminal background check of students seeking enrollment in field experiences.
- In accordance with state requirements, an applicant must possess the physical and mental health necessary for the tasks to be performed. Violation of a Roanoke College academic integrity or student conduct regulation, as well as convictions of any felony or any misdemeanor laws involving moral turpitude, may be taken as evidence of lack of fitness for admission or for recommendation for licensure endorsement. Teachers are both ethically and legally responsible for children; it is therefore imperative that pre-service teachers exhibit professional dispositions.
- The above described standards for admission to the program must be maintained, or the student may be dropped from the program.

### **Student Teaching II**

One endorsement area (PK-6, one endorsement in 6-8, one endorsement in 6-12, or one endorsement in PK-12)

- ☐ A minimum of 13 weeks for a minimum of 400 hours.
  - Elementary: PK-6 (thirteen weeks)
  - Middle: Middle 6-8 (thirteen weeks)
  - Secondary: Secondary 6-12 (thirteen weeks)
  - PK-12 (thirteen weeks): Foreign Language will remain in single placement for thirteen weeks; Art, Music, Theatre, or Physical Education will complete half of placement in PK-6 and half 6-12.

Students seeking added endorsements must extend student teaching beyond the regular term.

- ☐ A minimum of 14-18 weeks
  - PK-6 and One Middle or Secondary Subject Area (fourteen weeks total): PK-6 (seven weeks), Middle or Secondary subject area (seven weeks)
  - PK-6 and Foreign Language (fourteen weeks total): PK-6 (seven weeks), Foreign Language (seven weeks)
  - Two Middle or Secondary Subject Areas (fourteen week total); First subject area (seven weeks), Second subject area (seven weeks)
  - PK-12 Art, Music, Theatre or Physical Education and PK-6 (eighteen weeks total): PK-6 (six weeks), Subject area PK-6 (six weeks); Subject area 6-12 (six weeks)



The course may not be taken pass/fail.

Students may enroll in no more than one unit of credit in addition to student teaching and classroom management.

### **Study Away Student Teaching (International and Domestic)**

Student teaching candidates who have met all qualifications, including completing the appropriate applications, may seek permission to student teach away. Candidates are not guaranteed this opportunity. The decision to place students outside the Roanoke Valley is made by the Education faculty. Students seeking permission to student teach away should consult the *Education Handbook* and their education advisors for details on the application process. Additional fees may apply.

### **Mandated Tests**

- Virginia Communication and Literacy Assessment (VCLA)
- Praxis II Specialty Area Test
- Reading for Virginia Educators (RVE) – *Elementary Licensure Candidates Only*

### **Program Completion**

Completion of the teacher licensure endorsement program is defined as a student's passage of the appropriate Praxis II Specialty Area Test, the Virginia Communication and Literacy Assessment (VCLA) and for elementary licensure only, Reading for Virginia Educators (RVE) as well as successful completion of Student Teaching II, and fulfillment of all course requirements as outlined in the College Catalog. No College recommendation for teacher licensure endorsement will be given until requirements are met.

- ☐ Policy for EDUC 471/472/473/474 Student Teaching II Grade: The student teacher will not be recommended for licensure endorsement if the Student Teaching II grade is below a C.
- ☐ Policy for Student Teacher Evaluation: The student teacher's progress is monitored throughout the student teaching experience, and all student teachers are informed by mid-semester if there are any areas of concern. If the student teacher receives a score below 3 (4-point scale) on Midterm Evaluation, they must meet with the college supervisor to determine an Early Intervention Plan (EIP) for improvement and compliance. Successful completion of student teaching will be contingent on completion of the EIP. A description of the EIP process is available in the *Education Handbook*.

### **EDUC 210 Principles of Education**

Examination of the historical, philosophical, political and social principles of American education, including curricular patterns and objectives with emphasis on present-day changes and legal implications for schools and teachers. (1)

Lecture: 3 hrs./wk.

### **EDUC 240 Education Technology**

Examination of the appropriate use of digital technologies to effectively design, develop, implement, and assess learning in school settings. (1)

Lecture: 3 hrs./wk.

### **EDUC 250 Teaching, Learning & Cognition**

Study of the pedagogical, developmental and cognitive components of teaching and learning in diverse classrooms. Provides a deeper understanding of the learning and behavior of students as well as individual and group differences including special populations such as exceptional, gifted and at-risk learners. Students will be able to explore cognitive and linguistic development, teaching strategies, and assessments. (1)

Lecture: 3 hrs./wk.

### **EDUC 260, 261 Selected Topics in Education**

A course offered in various formats, designed to give students instruction in topics not regularly offered, with topics selected on the basis of faculty and student interest. (1, 1/2)

Lecture: 3 hrs./wk.

**EDUC 300 The Inclusive Classroom**

Examination of inclusive instructional practice frameworks across PK-12 with particular emphasis on working with students with disabilities, second language learners, and gifted and talented students.

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level EDUC course.*

**EDUC 321 Science Methods PK-8**

Examination of elementary and middle school science curricular and instructional practices. Emphasis is placed on effective approaches to teaching, instructional materials, and student assessment. The course will use a guided-inquiry approach to science instruction appropriate for the abilities and interests of children in grades PreK-8. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level EDUC course.*

**EDUC 331 Reading and Language Arts Methods PK-8**

Examination of reading and language arts curricular and instructional practices for PreK-8 students. Emphasis is placed on learner-centered pedagogical frameworks which support the development of skilled and meaningful reading, writing, spelling and oral communication. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level EDUC course.*

**EDUC 332 Instructional Methods**

Study of successful instructional design and methodologies. Emphasis is placed on different research-based approaches to instructional planning, content, materials, assessment and technology. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level EDUC course.*

**EDUC 341 Mathematics Methods PK-8**

Examination of mathematics curricular and instructional practices. Emphasis is placed on content and methods for teaching elementary and middle school mathematics through innovative teaching models that develop deep understanding and support PreK-8 learning. (1)

Lecture: 3 hrs./wk.

*Prerequisites: CLST 241 or Praxis II Elementary Mathematics passing score.*

**EDUC 352 Literacy in the Disciplines**

Examination of research-based literacy instruction frameworks, curriculum design, and strategies for teaching and assessment across all disciplines in middle and high school. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level EDUC course.*

**EDUC 361 Social Studies Methods PK-8**

Examination of social studies curricula and instructional practices for PK-8 students. Emphasis is placed on pedagogical practices that engage students in authentic learning activities designed to develop conceptual understanding of accurate, responsive, and responsible social studies content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level EDUC course.*

**EDUC 371 Field-based Reading and Assessment**

Examination of the instructional methodology, planning, and formal and informal assessment in the teaching of literacy. Class and field experience will provide opportunities to work with a student and use data collection and analysis to plan individualized literacy instruction. (1)

Lecture: 3 hrs./wk.; 20 field-based hours required in addition to lecture.

*Prerequisites: EDUC 331 and approval. Permission is required for the course to be taken concurrently with EDUC 471.*

**EDUC 380 Student Teaching I**

Practical experience in an appropriate level and/or subject area within a school classroom under the supervision of classroom teachers and an Education faculty member. (1)

Seminar: 1.5 hrs./month; Laboratory: 9 hours/week in schools.

*Prerequisites: One EDUC 300 level course, application, overall GPA of 2.5, passing score on VCLA, and approval.*

**EDUC 405, 406, 407 Independent Study and Research**

Selected research projects or topics in education carried out under the supervision of the departmental staff. (1/2, 1, 1/2)

*Prerequisite: Permission.*

**EDUC 451 Elementary Curriculum, Instruction, and Assessment**

Analysis and application of pedagogical theories, instructional methodologies, and assessment practices related to teaching and learning in the elementary classroom. The course emphasizes the evaluation of student data to inform decisions about learning progress and best practice instruction. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 300 level EDUC course.*

**EDUC 452 Research & Assessment**

During this capstone seminar students work collaboratively to find and analyze current education research. Focus is on research question formation, literature review, data collection and analysis procedures and application of data as it relates to assessment. Products will include a formal meta-analysis, recommendations to the profession based on the analysis, and an experiment design which will potentially further field knowledge.

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level and one 300-level EDUC course.*

**EDUC 460 Classroom Management**

Examination of a comprehensive knowledge base concerning best practices in instructional and behavioral management. Areas of emphasis include structuring the classroom for success, planning for instruction, managing materials and equipment, and assessing and managing student and group behavior. (1/2)

Lecture: 1.5 hrs./wk.

*Prerequisites: All admission requirements for EDUC 471/472/473 or 474, Student Teaching II, must be met. EDUC 460 must be taken concurrently with Student Teaching II.*

**EDUC 471 Student Teaching II – Grades PK-6**

Examination of the processes and strategies necessary to teach effectively in department approved classrooms: planning and implementing instruction, managing classrooms, and collaborating successfully with teachers, administrators, and parents. (1, 1)

Seminar: 1hr/wk.; Laboratory: Minimum 400 hours in schools.

*Prerequisites: EDUC 380, application, passing score on Praxis II, background check, 2.5 GPA (overall and major) and approval. Must be taken concurrently with EDUC 460.*

**EDUC 472 Student Teaching II – Grades 6-12**

Examination of the processes and strategies necessary to teach effectively in the department approved classrooms: planning and implementing instruction, managing classrooms, and collaborating successfully with teachers, administrators and parents. (1, 1)

Seminar: 1hr/wk.; Laboratory: Minimum 400 hours in schools.

*Prerequisites: EDUC 380, application, passing score on Praxis II, background check, 2.5 GPA (overall and in major) and approval. Must be taken concurrently with EDUC 460.*

**EDUC 473 Student Teaching II – Grades 6-8**

Examination of the processes and strategies necessary to teach effectively in the department approved classrooms: planning and implementing instruction, managing classrooms, and collaborating successfully with teachers, administrators, and parents. (1, 1)

Seminar: 1hr/wk.; Laboratory: Minimum 400 hours in schools.

*Prerequisites: EDUC 380, application, passing score on Praxis II, background check, 2.5 GPA (overall and in major) and approval. Must be taken concurrently with EDUC 460.*

### **EDUC 474 Student Teaching II - Grades PK-12**

Examination of the processes and strategies necessary to teach effectively department approved, classrooms: planning and implementing instruction, managing classrooms, and collaborating successfully with teachers, administrators, and parents. (1, 1)

Seminar: 1hr/wk.; Laboratory: Minimum 400 hours in schools.

*Prerequisites: EDUC 380, application, passing score on VCLA, passing score on Praxis II, background check, 2.5 GPA (overall and in the major) and approval. Must be taken concurrently with EDUC 460.*

### **EDUC 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. (1/2, 1, 1/2)

*Prerequisite: To qualify to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. EDUC 495 Honors Project is prerequisite for 497 Honors project.*

## **ENGINEERING SCIENCE**

*Professor Richard Grant; Associate Professor Daniel Robb; Assistant Professor Bryan Cobb*

Roanoke College offers both a Bachelor of Science degree and a Bachelor of Arts degree in Engineering Science. We recommend that students consult with their academic advisor early to discuss differences between the Bachelor of Science and Bachelor of Arts degrees.

### **Bachelor of Science Degree**

Engineering science emphasizes the balance between applied design, a hallmark of engineering fields, and the underlying scientific principles. The Bachelor of Science (B.S.) degree with a major in engineering science (ENGS) at Roanoke maintains an interdisciplinary approach and requires the completion of 16 units of basic science, mathematics, and engineering topics courses. Note that MATH 121 and MATH 122 are prerequisites for PHYS 201 and 202, respectively, both which are required for all Bachelor of Science majors. The program provides a healthy balance between basic science/math, classroom engineering instruction, and on-site training in application. Adhering to the national ABET accreditation guidelines, the B.S. degree serves the needs of students who intend to pursue professional engineering licensure. The B.S. degree requires the completion of the following courses:

#### **Basic Science & Mathematics (5.5 units)**

PHYS 190	Physics & Engineering Colloquium
CPSC 120	Programming
PHYS 201	Newtonian Mechanics
PHYS 202	Electricity & Magnetism
PHYS 203	Atomic, Molecular, & Optical Physics
PHYS 270	Mathematical Methods for Physics

#### **Engineering Topics (8.5 units)**

ENGS 191	Engineering Foundations
ENGS 192	Engineering Analysis
ENGS 200	Engineering Design Exploration
ENGS 301	Statics & Materials Testing
ENGS 302	Electronics & Robotics Principles
ENGS 303	Heat & Mass Transfer
ENGS 304	Fluid Mechanics
ENGS 490	Design Capstone I
ENGS 491	Design Capstone II

#### **Focusing Area (2 units, Select One Group)**

**Materials**

PHYS 250	Introduction to Nanomaterial
PHYS 450	Physics of Materials

**Robotics**

CPSC 250	Data Structures and Algorithms
CPSC 363	Robotics

(Note: CPSC 250 carries a prerequisite of CPSC 170)

**Mechanics**

ENGS 330	Dynamics
PHYS 299/499	Special Topics (with approval of the program coordinator)

*Note that students intending to take the Fundamentals of Engineering exam during their senior year are encouraged to take INQ 240, ECON 121 (which can substitute for an INQ 260 in the Intellectual Inquiry Curriculum), and a semester of chemistry.*

We strongly encourage students completing the Bachelor of Science degree to complete one unit of internship (ENGS 416) or research (ENGS 406 or ENGS 496) as part of their time at Roanoke; we suggest that this happen in the summer between the sophomore and junior year, or between the junior and senior year, but it could occur in the spring or fall semester of the junior or senior year.

**Bachelor of Arts Degree**

The Bachelor of Arts (B.A.) degree in Engineering Science is designed to give students an overview of engineering along with the ability to pair the major with other programs (majors, minors, and/or concentrations) on campus. The core contains courses in basic science/math and classroom engineering instruction, in addition, the focusing area options provide an introduction to another discipline that pairs well with engineering. Note that the B.A. degree is not accredited and is not designed for students intending to pursue professional engineering licensure. The degree requires the completion of 11 units as indicated below (Note that Math 121 and MATH 122 are prerequisites for PHYS 201 and PHYS 202, respectively).

**Basic Science (2.5 units)**

PHYS 190	Physics & Engineering Colloquium (1/2)
PHYS 201	Newtonian Mechanics
PHYS 202	Electricity & Magnetism

**Engineering Core (3.5 units)**

ENGS 191	Engineering Foundations
ENGS 192	Engineering Analysis
ENGS 200	Engineering Design Exploration (1/2)
ENGL 490	Design Capstone I

**Engineering Topics (2 units; choose two courses from)**

ENGS 301	Statics & Materials Testing
ENGS 302	Electronics & Robotics Principles
ENGS 303	Heat & Mass Transfer
ENGS 304	Fluid Mechanics

**Focusing Area (3 units; select one group)*****Chemistry***

CHEM 112 or 118	General Chemistry II
CHEM 221	Organic Chemistry
CHEM 260	Descriptive Inorganic Chemistry

(Note: CHEM 112/118 carries a prerequisite of CHEM 111 or 117)

***Environmental Studies***

ENSC 101	Environmental Science
ENSC 230	Critical Zone Science and Management
ENSC 270	Geographic Information Systems

*(Note that B.A. students interested in completing a different set of focus area classes should discuss their plans and needs with the program coordinator before their senior year.*

### **ENGS 191 Engineering Foundations**

Introduces the engineering profession, ethics and professional responsibility, teamwork and professional communication. Use of hand calculators and graphing, implementing unit conversions, engineering problem-solving procedures, computing tools (programming for engineering – use of MATLAB, spreadsheets and graphing), technical writing, and definition/identification/modeling of an engineering problem/system. (1)

Lecture: 3 hrs./wk.

### **ENGS 192 Engineering Analysis**

Introduces the methods of conceptual design (orthographic projections and computer aided drafting), mathematical modeling, prototyping and communication. Focus on developing proficiency in implementing the design process (validating potential design problems, systematic methods to develop and select solutions, prototyping and iterating to optimize solutions, communicating the final solutions to a broad audience). (1)

Lecture: 3 hrs./wk.

*Prerequisites: ENGS 191.*

### **ENGS 200 Engineering Design Exploration**

This course is an introduction to the process of engineering design with an exploratory “hands-on” approach. The focus of the course is experiential learning while supported by instruction and guided activities that highlight the underlying concepts in engineering design. (1/2)

Lab: 3 hrs./wk.

*Prerequisites: ENGS 191, 192.*

### **ENGS 301 Statics & Material Testing**

A detailed study of vector forces and space, scalar mass and time, including the following concepts from an engineering structures perspective: equilibrium, free-body diagrams, moments, couples, distributed forces, centroids, moments on inertia, analysis of two-force and multi-force members, and quantitative analysis of stress, strain, and modulus values. (1)

Lecture: 3 hrs./wk., Lab: 3 hrs./wk.

*Prerequisites: ENGS 192, PHYS 202.*

### **ENGS 302 Electronics & Robotics Principles**

An introduction to the principles of electronics and robotics with an engineering perspective. This includes an introduction to both analog and digital circuits, the construction and programming of logic circuits, and the programming and operation of robotic microcontrollers. (1)

Lecture: 3 hrs./wk.; Lab: 3 hrs./wk.

*Prerequisites: ENGS 192, PHYS 202.*

### **ENGS 303 Heat & Mass Transfer**

An introduction to the fundamentals of heat and mass transfer with continuing relevance due to the industries of nano-engineering, bio-engineering, and alternative energy methods. Thermodynamic principles and properties will be explored from an engineering perspective. (1)

Lecture: 3 hrs./wk., Lab: 3 hrs./wk.

*Prerequisites: ENGS 192, PHYS 202.*

### **ENGS 304 Fluid Mechanics**

This course introduces principles of fluid mechanics for liquids and gases from an engineering perspective. Properties and kinematics of fluids will be presented through both theoretical frameworks and relevant applications. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ENGS 192, PHTS 202, 270.*

**ENGS 330 Dynamics**

This course introduces principles of engineering dynamics, which elucidate applications of Newtonian principles. This includes an introduction to kinetics of a system of particles subjected to uniform and non-uniform motion.

(1)

Lecture: 3 hrs./wk.

*Prerequisites: ENGS 192, PHYS 202, 270.*

**ENGS 405, 406, 407 Independent Study and Research**

Selected topics in engineering science carried out under the direction of a faculty member. (Enrollment with the approval of the Program Coordinator.) (½, 1, ½)

**ENGS 416 Internship**

Field placement providing practical experience and training in areas in which engineering science is applied. (1)

*Prerequisite: Permission.*

**ENGS 490 Design Capstone I**

Building on principles and practice of engineering design and problem solving, this course will be centered on a hands-on development of a team-based design project. In the first semester, this course initiates the process through informed design solutions and lean startup activities. At a quasi-professional level, the modeling, prototyping, and visual representations of their design serve as the final deliverable. (1)

Lab: 6 hrs./wk.

*Prerequisites: Two of ENGS 301, 302, 303, and 304.*

**ENGS 491 Design Capstone II**

Building on the previous semester of engineering design, this second capstone course in engineering design will focus on building a device, application, or product with high-fidelity criteria. Students will continue to apply the process of design elements. At a quasi-professional level, the development and implementation of their design serve as the final deliverable. (1)

Lab: 6 hrs./wk.

*Prerequisites: ENGS 490.*

**ENGS 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisites: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year, must work under the guidance of a committee of three faculty members. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (½, 1 ½)*

**ENGLISH AND COMMUNICATION STUDIES**

*Professors Melanie Almeder, Wendy Larson-Harris (Chair); Associate Professors Thomas Carter, Srikanth Mallavarapu, Kenneth McGraw, Dana-Linn Whiteside; Assistant Professors Mary Hill, Nadia Martinez-Carillo, Teresa Milbrodt, Carrie Murawski*

The English and Communication Studies Department at Roanoke College houses three majors: Communication Studies, Creative Writing and Literary Studies. See separate listings under Communication Studies, Creative Writing, and Literary Studies for the requirements for the majors and minors in these fields.

**English Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

**ENGL 116 Social Media Practicum**

A supervised experience as a social media content creator. This course provides practical experience that requires application of academic knowledge and skills in a professional, work-like setting. 30 hours. Graded Pass/Fail.

(1/4)

*Prerequisite: Permission.*

**ENGL 202 Foundations in Fiction**

Critical reading and introductory literary analysis of major texts in fiction. (1)

Lecture: 3 hrs./wk.

**ENGL 203 Foundations in Oral and Performative Traditions**

Critical reading and introductory literary analysis of major texts from oral and dramatic traditions. (1)

Lecture: 3 hrs./wk.

**ENGL 204 Foundations in Poetry**

Critical reading and introductory literary analysis of major texts in poetry. (1)

Lecture: 3 hrs./wk.

**ENGL 212 Connections: Social Justice and Literature**

Critical reading and literary analysis of major texts surrounding the theme of social justice in literature. The course will forge connections between time periods, authors, and/or continents; a variety of genres (poetry, prose, and drama, as relevant) may be included. (1)

Lecture: 3 hrs./wk.

**ENGL 213 Connections: Gender and Literature**

Critical reading and literary analysis of major texts surrounding the theme of gender in literature. The course will forge connections between time periods, authors, and/or continents; a variety of genres (poetry, prose, and drama, as relevant) may be included. (1)

Lecture: 3 hrs./wk.

**ENGL 214 Connections: Community and Literature**

Critical reading and literary analysis of major texts surrounding the theme of community and how it is defined and experienced. The course will forge connections between time period, authors, and/or continents; a variety of genres (poetry, prose and drama, as relevant) maybe included. (1)

Lecture: 3 hrs./wk.

**ENGL 220 Special Topics**

Critical reading and literary analysis of major texts surrounding a focused topic of particular interest to the introductory study of literature. A variety of genres (poetry, prose, and drama, as relevant) will be included. (1)

Lecture: 3 hrs./wk.

**ENGL 256 Foundations in Film**

Critical study of selected films drawn from a variety of periods and national cinemas. The course will focus on the elements of film and how directors use these elements to achieve their effects and make their meanings. Works will be placed within the history of cinema, allowing attention to how the elements of film art have developed over time. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

**ENGL 290 Research Methods and Critical Perspectives**

An introduction to the methods of literary study that engages major debates and issues in the discipline, approaches to the elements and conventions of genre, and a sampling of literary perspectives and their critical applications. Students will learn to integrate their arguments with critical sources, bringing the critics' approaches to bear in the interpretation and appreciation of literary texts. This course will help students develop the skills necessary to produce a well-researched, scholarly essay. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One 200-level ENGL literature course.*

**ENGL 301 Focus: Special Topics**

Concentrated study of a special topic. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Two 200-level ENGL literature course.*

**ENGL 308 Focus: Author Studies**



Concentrated study of a single author or the comparative study of two or three authors. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Two 200-level ENGL literature courses.*

### **ENGL 320 Basic Linguistics**

The scientific study and description of language according to the principles of modern linguistics. (1) (Cross-listed as ANTH 320/LING 320)

Lecture: 3 hrs./wk.

### **ENGL 321 Advanced Grammar and Style**

A study of the structure of contemporary English grammar. Also explores questions of style and usage. Students analyze and diagram sentences and apply principles of grammar and style to their own and others' writing.

Designed for English majors and for those preparing to teach language and communication skills. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HNRS 105, HNRS 110, INQ 110, INQ 120 or permission.*

### **ENGL 322 Composition Theory and Practice**

Both an advanced composition course and an introduction to theories of writing and methods of teaching writing, to include perspectives on composing processes, social contexts and purpose for writing, theories of teaching, and successful classroom approaches to creating, responding to, and evaluating composition assignments. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Two 200-level ENGL literature courses.*

### **ENGL 323 The English Language**

A critical and historical study of the forms and usages in English speech and writing. (Recommended for those planning to teach English.) (1)

Lecture: 3 hrs./wk.

*Prerequisites: Two 200-level ENGL literature courses.*

### **ENGL 332 Focus: Shakespeare**

Analysis of selected plays with oral interpretation. (1) (Cross-listed as THEA 332)

Lecture: 3 hrs./wk.; Film Laboratory: 2-3 hrs./wk.

*Prerequisite: Two 200-level ENGL literature courses.*

### **ENGL 350 Focus: Genre Studies**

Critical study of a single genre of literature, such as autobiography, epic, literary non-fiction, lyric, romance, and short fiction. Works will be placed in relationship to literary, social, and historical movements and to current critical issues. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Two 200-level ENGL literature courses.*

### **ENGL 356 Focus: Film Studies**

Critical study of selected films. The course may focus upon a particular theme, genre, or set of filmmakers. Films will be placed in relation to social and historical movements and to current critical issues. May be repeated for credit. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisites: ENGL 256.*

### **ENGL 405, 406, 407 Independent Study**

Guided in-depth study of a topic in literature, language, or critical theory, or film leading to a substantial paper, series of essays, or creative project. (1/2, 1, 1/2)

*Prerequisites: Two 200-level ENGL literature courses.*

### **ENGL 411 Senior Seminar: Texts and the World**

“Texts and the World” is an intensive study of world literature, examining historical setting and cultural interrelationships. The reading list will be determined by the instructor. (Required of English majors in the fall semester of their senior year). Students must have completed a total of 25 units before enrolling in ENGL 411. Students wishing to complete their degree program early must meet the following criteria in order to enroll in ENGL 411: (1) have completed at least 20 units, and (2) have an overall GPA of at least 3.25 and a major GPA of at least 3.5. Students who do not meet the stipulated criteria may submit an appeal to the Department Seminar Subcommittee. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Senior standing or permission.*

### **ENGL 416 English Internship**

Experience in a field of applied writing through programs such as the Washington Semester, public relations, government communications or policy, or various aspects of the media. (1)

*Prerequisites: Two 200-level ENGL literature courses. Junior status and minimum GPA of 2.50.*

### **ENGL 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite:* To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)

## **ENVIRONMENTAL STUDIES**

*Professor Katherine O'Neill, (Chair); Associate Professor Laura Hartman; Assistant Professor Chelsea Peters*

The Environmental Studies Program provides students with knowledge, methods, and opportunities to investigate pressing domestic and global environmental problems, to gain insight into their relationship with nature, and to examine their role in creating an equitable sustainable world. The B.S. in Environmental Studies is an interdisciplinary major drawn from the natural sciences, social sciences, and humanities. Students specialize by following one of three areas: 1) Conservation and the Earth's Critical Zone, 2) Environment, Society and Science or 3) Justice, Culture, and Environment. All students majoring in Environmental Studies are encouraged to consult with their advisors regularly, and to consider internships, research projects, and study away experiences that will allow them to define, refine and achieve their postgraduate goals.

### **Major in Environmental Studies**

Students seeking a B.S. in Environmental Studies are required to complete 13 units: five core units plus eight additional units in one of the tracks.

#### ***The core:***

ENSC 101	Introduction to Environmental Science
ENST 103	Introduction to Environment and Culture
ENST 105	Introduction to Environment and Society
ENSC 270	Geographic Information Systems
ENST 430	Environmental Practicum

#### ***The foci:***

### **Conservation and the Earth's Critical Zone**

#### ***Introductory sequence from related discipline:***

Two courses forming an introductory sequence in Biology, Chemistry, Engineering Science or Data Science.

BIOL 180 and BIOL 190	Exploring Diversity in Biology/Exploring Unity in Biology <b>OR</b>
CHEM 111 and CHEM 112	General Chemistry: Foundation I/Foundations II <b>OR</b>
CHEM 117 and CHEM 118	Advanced Principles and Applications I and II <b>OR</b>
ENGS 191 and ENGS 192	Engineering Foundations/Engineering Analysis <b>OR</b>
CPSC 120 and DATA 170	Programming/Exploring Data

#### ***Ecological theory or applications course:***

***One from:***

BIOL 205	General Ecology
ENSC 220	Conservation Science
ENSC 230	Critical Zone Science

***Depth in Environmental Studies:***

Two additional upper-level Environmental Science courses, one of which must be ENST 341 or ENST 351.

***Breadth in Science:***

***Two additional science classes drawn from:***

BIOL 205	General Ecology
BIOL 235	General Microbiology
BIOL 240	Algae and Fungi
BIOL 265	Plant Diversity
BIOL 270	Invertebrate Biology
BIOL 275	Vertebrate Biology
BIOL 280	Animal Biology
BIOL 290	Parasitism
BIOL 300	Aquatic Ecology
BIOL 320	Systems Biology
BIOL 330	Community Ecology
BIOL 335	Biogeography & Systematics
BIOL 340	Animal Behavior
BIOL 245, 246, 345, 346 Special Topics in Biology (subject to topic approval)	
CHEM 221	Organic Chemistry I
CHEM 260	Descriptive Inorganic Chemistry
CHEM 270	Environmental Chemistry
PHYS 201	Newtonian Mechanics
PHYS 202	Electricity & Magnetism
DATA 248	Data Visualization
DATA 350	Databases for Data Science

Note: For the 300-level Biology classes, students need additional prerequisites from BIOL, CHEM and MATH.

For Physics classes, student need additional prerequisites from MATH.

***Breadth in Environmental Studies:***

One 200- or 300- level Environmental Studies course **OR**

ECON 287 Economics and the Environment **OR**

I.R./POLI 351 Environmental Policy **OR**

SOCI 337 Environmental Sociology

**Environment, Society and Science**

***Breadth from Social Sciences:***

Two courses chosen from:

ECON 121	Principles, Micro
ECON 287	Economics and the Environment
PHST/SOCI 331	Environmental Public Health
POLI 201	State and Local Government
POLI 202	Voting and Elections
POLI 205	The Presidency and Congress
SOCI 215	Social Movements
SOCI 335	Global Population Problems
SOCI 340	Crowds, Panics, and Disasters

and up to one approved INQ 260 on an environmentally related topic. Note that students using courses that do not focus exclusively on environmental topics should undertake environmentally oriented projects within these courses whenever allowed by course design.

***Methods in Social Sciences***

One Methods course chosen from

SOCI 351            Qualitative Methods and Analysis  
SOCI 352            Quantitative Methods and Analysis  
CJUS/I.R./POLI 209 Research Methods in Public Affairs  
ECON 348           Introduction to Econometrics

***Depth from Environmental Studies:***

Three additional upper-level Environmental Studies courses one of which must be at the 300-level.

I.R./POLI 351      Environmental Policy  
SOCI 337           Environmental Sociology  
ECON 287          Economics and the Environment

***Breadth from Environmental Science:***

Two 200- or 300- level Environmental Science courses.

**Justice, Culture, and Environment**

***Foundations:***

ENST 240 Environmental Justice and ENST/PHIL 212 Environmental Ethics

***Methods and Skills:***

One course chosen from:

ANTH 310           Ethnography  
CJUS/I.R./POLI 209 Research Methods in Public Affairs  
COMM 254          Rhetorical Traditions  
HEXS 230           Research Methods in Health and Exercise Science  
SOCI 351           Qualitative Methods and Analysis  
SOCI 352           Quantitative Methods and Analysis

***Depth in Environmental Studies:***

Two additional upper-level Environmental Studies courses. One of these courses must be ENST 341 or ENST 351.

***Breadth from Social Sciences and Humanities:***

One course chosen from:

ANTH/PHST/SOCI 202 Global Health and Culture  
ANTH 380           Creating Community Change: Applied Anthropology  
BUAD 264           Foundations of Leadership  
ECON 287           Economics and the Environment  
PEAC 201           Introduction to Peace and Justice Studies  
PHST 101           Health and Society: Introduction to Public Health  
PHST/SOCI 331      Environmental Public Health  
POLI 250           Politics and Power in American Policymaking  
POLI 351           Environmental Public Policy  
POLI 352           Human Rights Policy  
RELG 207           Native American Religions  
SOCI 201           Social Inequality  
SOCI 215           Social Movements  
SOCI 224           Race and Ethnicity  
SOCI 241           Introduction to Social Welfare  
SOCI 335           Global Population Problems

Note that students using courses that do not focus exclusively on environmental topics should undertake environmentally oriented projects within these courses whenever allowed by course design.

*Breadth from Environmental Science:*

Two 200–or 300– level Environmental Science courses.

### **Minor in Environmental Studies**

The minor in Environmental Studies requires six units: Two from ENSC 101, ENST 103 and ENST 105, plus four units of ENSC or ENST at the 200– or 300–level. Up to two courses listed under the Breadth in Science, Breadth from Social Science, or Breadth from Social Sciences and Humanities categories in the tracks may be applied towards the minor.

### **ENSC 101 Environmental Science**

In this course, we will apply science to understand some of the most pressing challenges facing humanity: global climate change, loss of biodiversity, pollution, and sustainable agriculture. We will engage in environmental science as an interdisciplinary enterprise connecting concepts from ecology, geology, chemistry, hydrology, soil science, physics, and meteorology. Students will work using the methods of environmental scientists, learning how to investigate, monitor and remediate environmental problems, as well as realizing how science interacts with society. The ethics of different scientific and technological approaches to solving environmental problems will be considered. Field trips and laboratory work are an integral part of accomplishing the goals of the course. Our work will explore themes of environmental justice, critical zone science, and sustainability which will strongly link this class to the other two introductory courses for the Environmental Studies Program. (1)

Lecture: 3 hrs./wk., Laboratory: 3 hrs./wk.

### **ENST 103 Introduction to Environment and Culture**

In order to think critically about Environmental Studies, this course will ask you to question how you describe, explain, and relate to nature through language, ideology, and media. To do this we will examine conceptions of nature drawn from the Humanities: philosophy, religion, literature, and art. An understanding of these disciplines will help us gain insight into contemporary environmental debates. The class will examine some of the following questions: what is our relationship to nature? How does nature have value? How has religion contributed to our conceptions of nature? How has English as a language and literary tradition evolved different ways of expressing our relationship to the natural world? Have recent environmental activists articulated a compelling rhetoric? Links to themes of environmental justice, science of the critical zone, and sustainability, connecting this course to the other two introductory courses for the Environmental Studies Program. (1)

Lecture: 3 hrs./wk.

### **ENST 105 Introduction to Environment and Society**

This course provides students with an overview of the major concepts, methodologies, and theoretical frameworks employed in the social sciences to study human ecological relations. A primary goal of this course is to highlight the dynamic interplay between society and nature while introducing students to a social science perspective on local and global environmental issues. The implications of social organization, whether political or economic, for ecosystems will surface and provide an opportunity to examine the impact of the individual and collective decisions. Another important goal of the course is to use the different theoretical and methodological approaches, as well as the language of the social sciences, to explore broad issues related to environmental justice, critical zone science, and sustainability, connecting the course to the other introductory courses for the Environmental Studies Program. (1)

Lecture: 3 hrs./wk.

### **ENST 210 Environmental History**

A survey which explores the relationship between history and the environment, with focus on a specific area of the world, and the connection between a people and its habitat through time. (1) . (Cross-listed as HIST 210),

Lecture: 3 hrs./wk.

### **ENST 212 Environmental Ethics**

An introduction to environmental ethics. The course will focus on ethical questions concerning the relationship between humans and the environment. What is the environment? What is the appropriate relation between humans and the environment? Does technology help or hinder this relationship? What responsibilities do humans have with regard to natural resources? (1) (Cross-listed as PHIL 212)

Lecture: 3 hrs./wk.

*Prerequisites: ENST 103 or permission.*

### **ENSC 220 Conservation Science**

Conservation science focuses on protecting and restoring the world's biological integrity during the sixth mass extinction of life on Earth. The course will involve interdisciplinary and normative study that applies concepts from biology, economics, public policy, sociology, anthropology, and philosophy, to the goal of developing conservation strategies. Because significant biodiversity loss is occurring around the world, caused by diverse driving forces, class sessions will incorporate case studies drawn from Africa, Asia, and Latin America, while labs will allow us to undertake scientific investigation of our local biodiversity and impacts of local conservation efforts.

(1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisites: ENSC 101.*

### **ENSC 230 Critical Zone Science and Management**

An examination of the coupled soil, water, and geological processes occurring at or near the Earth's surface and their role in sustaining living systems and regulating ecosystem services. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisites: ENSC 101.*

### **ENST 232 Religion and Ecology**

This course aims to discover how religious traditions have responded to the natural world through story, theology, and action. We will focus on Indigenous traditions, three Asian religions (Taoism, Hinduism, and Buddhism) and two Western traditions (Judaism and Christianity). We will explore how these diverse traditions offer both ancient and new perspectives on the ecological crisis and express the hope to reunite us with the earth. Topics will include animals, ecosystems, climate change, and sustainability, etc. (1) (Cross-listed as RELG 232)

Lecture: 3 hrs./wk.

### **ENST 240 Environmental Justice**

The field of environmental justice rests on two central insights: 1) humans are organisms. As such, we are interconnected with and affected by our environments (be it noise, toxins, flooding, green space, etc). 2) Injustice between humans exists. This injustice manifests in many ways, including how our environments affect us. This course examines these insights together: the empirical, science-based idea that positive and negative effects of environments on human populations is testable and knowable, and the philosophical, humanities-rooted idea that human interactions should be characterized by justice and fairness. Using various social lenses, historical perspectives, and philosophical theories of justice, we examine a series of case studies defined by data, proof, and experience. In the process, we learn there is much more to the study of the environment than a simple focus on wilderness or endangered species. Humans are organisms, too! (1)

Lecture: 3 hrs./wk.

*Prerequisite: ENSC 101, ENST 103 or ENST 105.*

### **ENST 260 Special Topics**

Examination of special topics concerning the environment. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ENSC 101 or ENST 103 or 105 or permission.*

### **ENSC 261 Special Topics**

Examination of a special topic concerning the environment from the perspectives of interdisciplinary natural sciences. (1)

Lecture: 3 hrs./wk; Lab: 3 hrs./wk.

*Prerequisites: ENSC 101 or permission of the instructor.*

### **ENSC 265 Special Topics**

Investigation of a special topic not regularly offered, with the topic determined by the faculty member. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisites: ENSC 101 or permission.*

### **ENSC 270 Geographic Information Systems**

An exploration of techniques for modeling environmental interactions using a specialized database management system known as Geographic Information System. GIS is a comprehensive set of tools for analyzing patterns, relationships, and trends across the landscape with applications in natural resource management, conservation biology, regional planning, and risk assessment. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ENSC 101 or permission.*

### **ENST 290 Sustainable Agriculture and Food Systems**

Because a farm is an ecosystem with *Homo sapiens* as its keystone species, study of agriculture is inherently interdisciplinary. Using concepts from anthropology, business, economics, sociology, chemistry, ethics and geography, we will explore food systems and farming methods in relation to core ecological principles. Course sessions will include local field trips, lecture, discussions, case study activities, presentations, and visits by guest farmers and entrepreneurs involved in the local food scene. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ENSC 101, ENST 103 or 105.*

### **ENST 341 Climate Justice**

The climate raises unique questions of justice. What justice is owed across great distances and vast time scales? How do we think about responsibility and blame in light of a collectively caused, incrementally accumulating disaster like the heating of the globe? This course is a journey through: understanding the problems caused by the climate crisis, discovering the solutions that exist, and analyzing the ways people create change to address the situation.

Lecture: 3 hrs./wk.

*Prerequisites: ENSC 212 or ENST 240.*

### **ENST 351 Food, Agriculture, Sustainability and Justice**

This course addresses gaps in justice and sustainability that exist in the American food and agriculture system, and asks students to examine ways to address these problems. Students acquire a holistic understanding of the food system, its problems, and our own place in solving them. We will connect hands-on experience with academic learning to come away with a holistic understanding of the food system, its problems, and our own place in solving them.

Lecture: 3 hrs./wk.

*Prerequisites: ENST 212 or ENST 240.*

### **ENST 360 Special Topics**

Examination of a special topic concerning the environment. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Any 200-level ENST course or permission.*

### **ENSC 361 Special Topics**

Examination of a special topic concerning the environment from the perspectives of interdisciplinary natural sciences. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ANY 200-level ENSC course or permission of the instructor.*

### **ENSC 365 Special Topics with Lab**

Investigation of a special topic concerning the environment from the perspective of interdisciplinary natural sciences. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisites: ANY 200-level ENSC course or permission of the instructor.*

### **ENSC 370 Landscape Analysis in GIS**

An introduction to the spatial analysis of landscapes using remote sensing. This course will address consequences of spatial heterogeneity and include applications in environmental planning, risk assessment, and adaptive management. (1)

Lecture: 3 hrs./wk.

*Prerequisite: ENSC 270.*

### **ENST 371 Sex and Earth**

This course asks a deceptively simple question: how does a “gender and sexuality” lens illuminate a new perspective on environmental issues? Beginning with this simple question, this course takes a deep dive into feminist theory, queer studies, and more. We will examine the ancient roots of archetypes such as mother earth; question the role of gender in attitudes toward environmental issues, and ask ourselves about “naturalness” in various manifestations of human sexuality. We will also learn about gender’s role in sustainable development around the world. Between illuminating theoretical discussions and case studies involving population, energy, climate change, consumption, and food, students will end this class with a transformed perspective on sex and earth.

Lecture: 3 hrs./wk.

*Prerequisite: ANY 200-level ENST course.*

### **ENSC 380 Global Change and the Earth System**

We live in a changing planet. Evaluating the potential impacts of human activity on global-scale processes and seeking viable pathways forward requires drawing upon concepts from the earth, physical, and biological sciences to understand how the Earth itself operates. This course will examine interactions between the Earth’s major systems (geosphere, hydrosphere, atmosphere, and ecosphere) along with approaches for analyzing these complex relationships and feedbacks. We will apply this integrated earth systems framework towards discussion of strategies for limiting, mitigating or adapting to global change and for promoting greater resilience in natural and human systems.

Lecture: 3 hrs./wk.

*Prerequisite: Any 200-level ENSC course or permission of the instructor.*

### **ENSC 390 Water and Society**

This is an upper-level, interdisciplinary course covering the water crisis tradeoffs in sustainable water management. The course integrates physical hydrology and case scenarios to explore quality/quantity, urbanization, climate change, economic, and legal issues surrounding freshwater resources. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Any 200-level ENSC course or permission of the instructor. .*

### **ENST 405, 406, 407 Independent Study and Research**

A research or independent study project on an environmental topic that results in the production of a paper and oral presentation. (1/2, 1, 1/2)

*Prerequisites: Written proposal and permission.*

### **ENST 415, 416, 417 Internship**

Practical experience in a setting where environmental topics are applied. (1/2, 1, 1/2)

*Prerequisites: Written proposal and permission.*

### **ENST 430 Senior Practicum**

A team-based project where students work as environmental consultants to solve a real world problem. (1)

Lecture: 3 hrs./wk.

*Prerequisites: ENSC 270, any ENST 200-level course or higher and Senior standing or permission.*

### **ENST 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. (1 /2, 1, 1 /2)

*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and program coordinator. A minimum GPA of 3.4 in the major is required.*



## FRENCH

*Assistant Professor Alison Clifton, Lecturer Matthew Trumbo-Tual*

A major in French consists of the completion of 11 units at or above the 201 level in this language. A major must be enrolled in at least one one-unit courses in French during the senior year. Majors must complete one approved period of study abroad. Appropriate periods of study abroad include an Intensive Learning/May Term travel course in which French is an intensively-taught language, or a summer, semester, or year abroad with a department-approved program such as ISEP, or another university-sponsored program abroad.

### **Majors must take:**

French 201

French 202

Or two elective units at or above the 300 level

### ***One speaking-intensive course from the following:***

French 301

French 303

Special studies topics courses designated as speaking-intensive

### ***One writing-intensive course from the following:***

French 302

French 330

Special-studies topics courses designated as writing-intensive

### ***One civilization and culture-intensive course from the following:***

French 311

French 312

French 315

Special-studies topics courses designated as culture-intensive

And a total of six French electives to be selected from the courses listed above or from any of the other 300 and 400 level French courses or Linguistics 320. However, no more than two courses taught in English may be applied toward the major.

Students who study abroad should select, in consultation with their advisors, appropriate substitutes for these requirements. The linguistics course taught in English (Linguistics 320) may be counted towards the major.

It is suggested that majors interested in:

- a) French studies in graduate school take French 301, 302, 311, 312, 315 and one literature course from each of the five periods of literature, and acquire a working knowledge of a second foreign language;
- b) Teaching French take French 341, French 301, 302, 303, 311, 312, 315, 338 and enough courses in another subject or a second foreign language to meet licensure requirements in a second area;
- c) Business or international diplomacy take French 301, 303, 311 and/or 312 or 315, 330, Business Administration 211, and Political Science 231.

### **Minor in French**

A minor in French consists of six units, including:

French 201 and 202, or two elective units

French 301 or 303

French 302 or 330

French 311 or 312 or 315

And one course to be selected from any French course numbered at the 300 or 400 level.

### **French Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **FREN 101, 102 Elementary French I, II**

A study of the fundamentals with emphasis on pronunciation and aural comprehension. Oral and written work. Reading of selected materials. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: FREN 101, or its equivalent, is a prerequisite for 102.*

### **FREN 150 Elementary French Review**

A one semester review of the essentials of French grammar and basic vocabulary to promote listening, speaking, reading, and writing skills. Emphasis is on developing conversational skills and cultural awareness to handle topics of everyday life in French. This course is designed for students who have studied French previously, but lack sufficient preparation to enter French 201. Credit cannot be received for both FREN 102 and FREN 150. (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: FREN 101 or its equivalent.*

### **FREN 201, 202 Intermediate French I, II**

A review of grammar. Selected reading, conversation, culture and composition. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: No prerequisite for FREN 201, but previous study of a modern language is recommended; FREN 201 or equivalent is prerequisite to FREN 202.*

*NOTE: For any course above the 202 level, FREN 201-202 or the equivalent is a prerequisite. All 300 and 400 level courses are taught in French unless specifically noted otherwise. No more than two courses taught in English may be applied toward the major. The following are taught in French:*

### **FREN 301 French Conversation**

Improving oral proficiency and listening comprehension skills using contemporary media sources. (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

### **FREN 302 French Composition**

Improving command of grammar and writing skills, vocabulary building, and study of idiomatic expressions through selected readings. (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

### **FREN 303 Oral Expression and Phonetics**

Theory and practice of pronunciation. Systemic analysis of the sounds of French and the techniques to produce them accurately through intonation patterns, phonetic transcription and oral practice. (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

### **FREN 311 Building a Nation: French Civilization and Culture I**

The civilization and cultural development of France from the beginning to the French Revolution. Attention is paid to the language, daily life, customs, art, and music of the country. (1)

Lecture: 3 hrs./wk.

### **FREN 312 A Nation Emerges: French Civilization and Culture II**

The civilization and cultural development of France from the time of the French Revolution to the 21st century. Attention is paid to the language, daily life, customs, art, and music of the country. (1)

Lecture: 3 hrs./wk.

### **FREN 315 Francophone Societies**

A study of political, economic, social, literary, and cultural issues in selected contemporary Francophone societies. Three French-speaking countries, selected from Africa, the Caribbean, and the Americas, will be studied in depth. (1)

Lecture: 3 hrs./wk.; Laboratory work.

### **FREN 330 Studies in French Translation**

An introduction to the field of professional translation and interpretation, as well as a workshop in which students can practice their translation/interpretation skills. Students will become familiar with translation as a theoretical and methodological communicative act. (1)

Lecture: 3 hrs./wk.

*Prerequisite: FREN 202.*

### **FREN 338 Second Language Learning: Deciphering Myths from Facts**

How do people learn a second language? Is there an age limit for second language learning? Can you really learn a language in the classroom as opposed to the “real world”? This course is designed as an introduction to both the theory and practice of second language acquisition (SLA). The course will explore questions like those presented above to decipher the myths from the facts of language acquisition and students will apply their knowledge by creating an original research design within the field of SLA. (1)

Lecture: 3 hrs./wk.

### **FREN 341 Methods of Teaching French**

An evaluative study of language teaching methods. Development of teaching aids and a teacher’s resource book. PreK-12 levels of instruction will be presented. Assignments will be completed in French. (1) (Cross-listed as LANG 341) Taught in English.

Lecture: 3 hrs./wk.

*Prerequisite: FREN 202.*

### **FREN 380 Special Studies in French Language, Literature, and Culture**

Study of a special topic, with subject or theme to be determined by the students and faculty member. Course may be taken more than once. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission of the instructor.*

### **FREN 405, 406 Independent Study**

Guided reading and research of a particular facet of French language, literature, or culture. (1/2, 1)

*Prerequisite: By permission.*

### **FREN 416 Internship**

Field placement providing the student with practical experience in work areas in which French is applied. These areas may include embassies, government service, international business, education, industry, and the communications media. (1) May be conducted in French or English. (Cross-listed as LANG 416)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **FREN 420 The French Poetic Tradition**

A study of the languages and forms of poetry in French, based on reading and analysis of selected works from major poets and poetic movements in French literary history. This course is designed to enable students to become better readers of French poetry and to gain an understanding and appreciation of some of France’s greatest poets. (1)

Lecture: 3 hrs./wk.

### **FREN 421 The Medieval World**

Selections from French literature of the Middle Ages, with emphasis on understanding the literary, cultural, and aesthetic trends of the period. (1)

Lecture: 3 hrs./wk.

### **FREN 431 Renaissance Vision and Voices**

Selections from French literature of the Renaissance, with emphasis on understanding the literary, cultural, and aesthetic trends of the period. (1)

Lecture: 3 hrs./wk.

### **FREN 441 Political and Civil Order in 17th- and 18th- Century French Literature**

Moving from classicism and the Age of Absolutism to the Enlightenment and the Age of Revolution, this course studies major French authors of the 17th and 18th centuries in the context of French literary and intellectual history. (1)

Lecture: 3 hrs./wk.

### **FREN 451 Romanticism, Realism and Naturalism in 19th- Century Literature**

Readings and discussion of major literary works of the period. (1)

Lecture: 3 hrs./wk.

### **FREN 461 The Modern Novel and Short Story**

Major works of the 20th century including such authors as Gide, Camus, Sartre, Robbe-Grillet, and other francophone writers. (1)

Lecture: 3 hrs./wk.

### **FREN 480 Advanced Studies in French Language, Literature, and Culture**

Concentrated study of a special topic or theme not normally covered by regular course offerings. Students will be expected to read, write, and carry out research at an advanced level in French. Course may be taken more than once. (1)

Lecture: 3 hrs./wk.

*Prerequisite: FREN 301 or equivalent.*

### **FREN 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and Department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **GENDER & WOMEN'S STUDIES CONCENTRATION**

*Associate Professor Samantha Rosenthal and Assistant Professor Carrie Murawski, Coordinators*

Gender & Women's Studies is born of the historical effort to retrieve from obscurity the realities of women's lives and to advocate for equality for all genders in the modern world. This interdisciplinary field investigates the cultural categories of masculinity and femininity (and the various mixtures of the two) which have developed in and through complex socio-historical processes, and which face the possibility of future transformation. Gender & Women's studies courses approach the relationship of gender to sex, class, race, sexuality, ethnicity, religion and language in a critical and self-critical spirit.

Students from any major may earn a concentration in Gender & Women's Studies by successfully completing (with a cumulative grade point average of at least 2.0) at least six units. Of these six units one must be GNDR 150. The other five units must come from at least two different disciplines from the course list below. Topics and special studies courses, marked "as appropriate" below, must be approved by the concentration advisors. In accordance with the general rules for concentrations, the six courses taken for the concentration must include at least three units which are not used to satisfy the student's major requirements. While GNDR 150 is not a prerequisite to the other courses, taking GNDR 150 as early as possible is recommended. Students should see the concentration advisor(s) for a current list of electives, additional special topics courses, INQ courses, and independent studies that can be counted toward the concentration. No more than two INQ courses may be applied toward the concentration.

#### **Required Course:**

GNDR 150 Introduction to Gender & Women's Studies

#### **Elective Courses:** (five from at least two disciplines)

ENGL 212	Connections: Social Justice and Literature
ENGL 213	Connections: Gender and Literature
ENST 371	Sex and Earth
HIST 235	The Witch-hunts of Early Modern Europe
HIST 262	U.S. Women's History
HIST 269	History of Sexuality in the U.S.
SOCI 226	Intimate, Marital, and Family Relationships
SOCI 229	Sociology of Sex and Gender
SOCI 329	Global Perspective on Families

SOCI 338	Women's Lives Around the World: Global Perspectives
SPAN 312	Civilization and Culture: Spanish America
SPAN 323	Introduction to Literature: Spanish America

**Special Topics courses with concentration-appropriate content and permission of program coordinators, especially**

ENGL 202	Foundations in Fiction
ENGL 203	Foundations in Oral Traditions
ENGL 220	Special Topics
ENGL 301	Focus: Special Topics
ENGL 308	Focus: The Author Studies
ENGL 356	Focus: Film Studies
PHIL 111	Contemporary Issues

*Disciplinary courses, Special Topics courses in the disciplines not indicated above, Internships, INQ and Intensive Learning courses, and Honors courses where applicable and with permission of the program coordinators.*

### **GNDR 150 Introduction to Gender & Women's Studies**

An introduction to key questions, concepts, and debates within the field of Gender & Women's Studies and a basic grounding in the historical movements in which gender equality is fought for. The fundamentally interdisciplinary nature of Gender & Women's Studies is emphasized by regular guest lectures from faculty across the curriculum. (1)

Lecture: 3hrs/wk.

## **GEOGRAPHY**

A major in geography is not offered at Roanoke College.

### **GEOG 110 World Geography**

A geographical analysis of physical and cultural resources, patterns of human occupations, the distribution of population, and the important areas of commodity productions. (1)

Lecture: 3 hrs./wk.

### **GEOG 140 Urban Geography**

A survey designed to acquaint the students with the concepts and principles of urban geography, promote a greater awareness of the spatial structure of cities and metropolitan regions, and provide the student with skills to interpret and explain locational and functional interrelationships and changes in urban areas. (1)

Lecture: 3 hrs./wk.

## **GERMAN**

A major in German is not offered at Roanoke College.

### **Concentration in German Studies**

The German Studies Concentration provides a multidisciplinary approach to the study of German language, culture, history, politics, and social issues. The Concentration requires a total of six credit units. Student who want to complete the concentration must take three core language courses (GRMN 201, 202, and 301 or 311) and three electives on relevant themes from other departments. See the list below.

#### **CORE Courses: 3 units**

GRMN 201	Intermediate I
GRMN 202	Intermediate II
GRMN 301	German Composition & Conversation <b>OR</b>
GRMN 311	German Civilization & Culture

#### **ELECTIVES: 3 units**

HIST/RELG 246	Holocaust
HIST/RELG 212	The Reformation
HIST 340	Issues in Modern European History
HIST 343	Netherlandish Painting
ARTH 353	Dutch Golden Age
I.R./POLI 221	Comparative Political Systems: Europe

RELG 284 Luther and his Legacy

GRMN 301 or 311 may also be used as an elective if not used towards the core requirement above.

Disciplinary and special topics courses, Leipzig Program courses, IL courses, and INQ/HNRS courses may apply toward the concentration when applicable and with the permission of the concentration coordinator.

The following courses are recommended for those seeking teaching licensure in German: for teaching methods–Language 341; for composition and conversation–German 301; for civilization and culture–German 311 or 314 or 315; for survey literature courses–German 320 and 321; for Linguistics–Linguistics 320. For placement and prerequisites at the lower level see “Modern Languages.”

### **GRMN 101, 102 Elementary German I, II**

A study of the fundamental structures of German, with emphasis on oral proficiency and communication. Includes cultural topics. (1)

Lecture: 3 hrs./wk. for each; Laboratory: 1 hr/wk. for each.

*Prerequisite: GRMN 101, or its equivalent, is a prerequisite for GRMN 102.*

### **GRMN 201, 202 Intermediate German I, II**

A review of grammar. Selected reading, conversation, and composition. (1, 1)

Lecture: 3 hrs./wk. for each; Laboratory: 1 hr/wk. for each.

*Prerequisite: No prerequisite, but previous study of a modern language is recommended.*

*The following are taught in German:*

### **GRMN 301 German Composition and Conversation**

Practice to improve oral proficiency and writing skills. Vocabulary building through selected readings on cultural topics. (1)

Lecture: 3 hrs./wk.; Laboratory work.

### **GRMN 311 German Civilization and Culture**

The historical, social, and artistic forces which have influenced German life and thought. (1)

Lecture: 3 hrs./wk.

### **GRMN 314 The Cultures of the German-Speaking Countries**

The development of the culture and politics of modern Austria, Germany, and Switzerland. (1)

Lecture: 3 hrs./wk.

### **GRMN 315 The Post-War Germanies**

An examination of the political, economic, and cultural developments in East and West Germany from the end of the World War II to the present, including the reunification. (1)

Lecture: 3 hrs./wk.; Laboratory work.

### **GRMN 320 Age of Goethe: Faust**

An introduction to the Age of Goethe through reading and discussion of Goethe's Faust. This course also focuses on improvement of reading skills in German. (1)

Lecture: 3 hrs./wk.

### **GRMN 321 Survey of German Literature**

Representative works of literature from the Enlightenment to the present. (1)

Lecture: 3 hrs./wk.

### **GRMN 380 Special Studies in German Language, Literature, and Culture**

The study of a special topic not regularly offered. (1)

Lecture: 3 hrs./wk.

### **GRMN 405, 406 Independent Study**

Guided reading and research of a particular facet of German language, literature, or culture. (1/2, 1)

*Prerequisite: By permission.*

## **GREEK**

*Professor Jennifer Berenson*

A major in Greek is not offered at Roanoke College. Student interested in studying the ancient world should consult the requirements for the concentration in Classics and the Ancient Mediterranean World.

### **GREK 101, 102 Elementary Ancient Greek I, II**

A study of the fundamentals of Classical Greek, with emphasis on grammar, vocabulary, and translation. Students will also read selected texts in translation as an introduction to the cultural life of ancient Greece. (1, 1)

Lecture: 3 hrs./wk.; Laboratory 1 hr./wk.

*Prerequisite: GREK 101, or its equivalent, is a prerequisite for 102.*

### **GREK 201, 202 Intermediate Ancient Greek I, II**

A continuing study of Classical Greek, with emphasis on more complex grammatical structures, vocabulary, and translation. Students will read selected excerpts in Greek as part of an ongoing introduction to the cultural life of ancient Greece. (1)

Lecture: 3 hrs./wk.

*Prerequisite: GREK 102 or its equivalent is prerequisite for 201. GREK 201 or its equivalent is prerequisite for 202.*

### **GREK 250 Readings in Ancient Greek**

A continuing study of ancient Greek, focused on improving translation skills through reading Classical, Hellenistic, or Roman-era texts. Texts chosen will vary by semester. Course may be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: GREK 202 or its equivalent.*

## **HEALTH AND EXERCISE SCIENCE**

*Associate Professors Elizabeth Ackley, Matthew Rearick (Chair); Assistant Professor Taylor Rowley; Teaching Associate Shawn Urbanek, Visiting Professor Cory Scott*

Roanoke College offers both a Bachelor of Science and Bachelor of Arts degree in Health and Exercise Science.

Students seeking the B.S. degree must complete sixteen units of course work in Health and Exercise Science (HEXS) and allied fields.

The B.S. degree requires ten units of HEXS coursework: HEXS 195 (1/2 unit), 201, 208, 223 (1/2 unit)\*, 230, 317, 325 and four additional upper division units (200 or above), with two of the four chosen from Group 1 options and two chosen from Group 2 options (see course options below). Students may also substitute 405-407 Independent Study or Research or 495-497 Honors in the Major with permission of the department as Group 2 options (no more than 1 unit of Independent Study or Honors in the major may be taken for credit in the Majors).

B.S. degree candidates must complete BIOL 106 and five additional units of Math and Science. Options include BIOL 230, 235, 260; CHEM 111 or 117, 112 or 118; PHYS 102 or 103, 104; Math 111 or 121; MATH 115.

\*Students who declared HEXS prior to August 1, 2018 may satisfy this requirement with competency for HEXS 223 through American Red Cross Certification.

Students seeking the B.A. degree must complete twelve units of course work in Health and Exercise Science (HEXS) and allied fields.

The B.A. degree requires nine units of HEXS coursework: HEXS 195 (1/2 unit), 201, 208, 223 (1/2 unit)\*, 230, 325, and four additional upper division units (200 or above), with three of the four chosen from Group 1 options and one chosen from group 2 options (see below). Students may choose HEXS 416 Internship, HEXS 405-407

Independent Study or HEXS 495-497 Honors in the Major with permission of the department as Group 1 options (only 1 unit of internship, independent study or Honors in the Major may count toward the major).

B.A. degree candidates must also complete BIOL 106, 230, and 260.

\*Students who declared HEXS prior to August 1, 2018 may satisfy this requirement with competency for HHP HEXS 223 through American Red Cross Certification.

### **MINOR IN HEALTH AND EXERCISE SCIENCE**

A minor in Health and Exercise Science requires six units of HEXS coursework; HEXS 195 (1/2 unit), 201, 208, 223 (1/2 unit), 317 or 325, and 2 courses chosen from either the Group 1 or Group 2 course listings (see course options below). Students may opt to take 405-407 Independent Study with permission of the department, and with the support of a HEXS faculty member for Group 1 or 2 options (only 1 unit of Internship, Independent Study or Honors in the Major may count toward the minor). Students are permitted to substitute HEXS 230 with PSYC 202 or 204, SOCI 351 or 352, or POLI/I.R./CJUS 209.

### **HEALTH AND EXERCISE SCIENCE GROUP 1 AND GROUP 2 COURSE OPTIONS**

Course level options are intended to ensure students' familiarity with a broad range of core areas in Health and Exercise Science while providing flexibility in tailoring their course-of-study to interest and preparation for postgraduate study or work. The Group 1 course options cover areas such as nutrition, behavioral perspectives in health and exercise, and therapeutic and athletic populations, and special topics.

#### ***Group I Course Options***

HEXS 301	Personal & Community Health <b>OR</b> PHST 101 Introduction to Public Health
HEXS 315	Behavioral Perspectives in Health and Exercise
HEXS 316	Nutrition
HEXS 317	Neuromechanics (option in B.A. only; required in core B.S.)
HEXS 320	Strength & Conditioning
HEXS 326	Therapeutic Interventions

#### ***Group II Course Options***

HEXS 400	Science of Training Athletes
HEXS 402	Special Populations
HEXS 415	Evaluation of Athletic Injuries
HEXS 420	Special Topics in Health and Exercise Science

### **HEALTH PROFESSIONS AND GRADUATE ADVISING**

Students pursuing graduate studies in the health professions need to be aware that programs in these areas may require additional courses beyond those required for the B.A. and B.S. degrees (e.g., BIOL 180). All students and particularly those considering these career paths – are encouraged to work closely with Health and Exercise Science faculty and Health Professions Advisory Group members to select courses appropriate for and supportive of their career goals. They should plan their schedules carefully to ensure completion of all requirements by the appropriate times.

#### **HEXS 195 Introduction to Health and Exercise Science**

This course serves as an introduction to the health and exercise science major, providing students with an overview of the historic development of modern exercise science, an introduction to scientific literature, and an exploration of career opportunities within the field. Foundational elements within major sub-fields will be introduced, including research methodologies, prominent subthemes, and educational preparation for advanced study and learning within the field of exercise science. (1/2)

Lecture: 1.5 hrs./wk.

*Prerequisite: None.*



**HEXS 201 Motor Control and Learning**

This course is designed to provide students with a comprehensive introduction to motor control, development and learning. Considerations for study will include rudimentary neurophysiology (from cells to systems), movement theories, as well as fundamental components of motor control and skill including learning, memory, attention, feedback and practice. Adaptation of human motion to various stimuli and motion analysis will be explored. A strong emphasis will be placed on students understanding the experimental findings and the theoretical frameworks that support the application of movement science within a variety of professional settings. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 195 or SPMT 190*

**HEXS 208 Exercise Testing and Prescription**

This course provides students with comprehensive knowledge and techniques related to exercise testing and program prescription as appropriate for apparently healthy populations. In following accepted guidelines, this course provides students with a foundation of assessment and prescription techniques, including risk stratification, health-related fitness testing and interpretation, client debriefing, behavior theory concepts, exercise programming guidelines, and validity and reliability considerations. (1)

Lecture: 3 hrs./wk., Laboratory: 1.5 hrs./wk.

*Prerequisite: HEXS 195 or SPMT 190*

**HEXS 223 Introduction to Emergency Care**

The causes, consequences, and reduction of accidents in all areas of life. First aid procedures including prevention, recognition, and care for injury and sudden illness. (1/2)

Lecture: 1.5 hrs./wk.

**HEXS 230 Research Methods in Health and Exercise Science**

This course is designed to provide students with an overview of scientific methods in the broad fields of health and exercise science. With a focus on research ethics, research design, sampling and descriptive and inferential statistical analyses, student will understand the processes by which research questions are generated, evaluated, supported, and presented in oral and written forms. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 195 or permission.*

**HEXS 301 Personal and Community Health**

An understanding of the principles and problems of personal, school, and community health as applied to everyday living. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 195 or SPMT 190 or permission.*

**HEXS 315 Behavioral Perspectives in Health and Exercise**

A study of the behavioral factors related to participation in healthy living, exercise and sport. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 195 or SPMT 190 or permission.*

**HEXS 316 Nutrition**

This course is designed to provide students with an understanding of basic concepts in human nutrition. Topics will include the physiological and biochemical processes involved in nutrient metabolism across all stages of human development and in the contexts of health and disease. Students will examine the rationale for and application of nutrition guidelines and will consider the impact of food choice, including the role of behavioral and sociological aspects of eating, relative to nutrition and nutrient-related diseases in a global context. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BIOL 106 or BIOL 190 or permission.*

### **HEXS 317 Neuromechanics**

This contemporary course draws on the disciplines of neurophysiology and physics to examine typical and atypical movement forms. A special emphasis is placed on exploring how the sensorimotor system plays an active role in this process, particularly its interaction with the physical laws that constrain human movement. References to normal, everyday actions, as well as sport and rehabilitative movement are pervasive. (1)

Lecture: 3 hrs./wk.; Laboratory: 2 hrs. 15 min/wk.

*Prerequisite: HEXS 201 or permission.*

### **HEXS 320 Strength and Conditioning**

This course provides students with a conceptual foundation and applied experience using a variety of sport, fitness, and rehabilitative movements. Students will explore rudimentary biomechanics and will combine this with principles from movement and exercise science. Emphasis is placed on students knowing, demonstrating, and explaining the proper technique for traditional single and multi-joint movements, functional training movements and basic dynamic motions. (1)

Lecture: 3 hrs./wk.

*Prerequisite: BIOL 230 or permission.*

### **HEXS 325 Exercise Physiology**

This course serves as an introduction to the basic principles of exercise physiology, building on foundational knowledge gained through anatomy and physiology, and exercise and testing coursework. Through the investigation of challenges to homeostasis brought about by physical activity, exercise and sports participation, students will gain an understanding of acute responses and chronic adaptations of the body brought about by exposure to the stresses of exercise in changing environmental conditions. (1)

Lecture: 3 hrs./wk.; Laboratory: 2 hrs. 15 min/wk.

*Prerequisite: HEXS 208 or permission.*

### **HEXS 326 Therapeutic Interventions**

This course is designed to provide students with an understanding of therapeutic modalities and therapeutic exercise for the prevention and rehabilitation of orthopedic injuries. It will focus on theory, design and implementation of appropriate therapeutic modalities and functional exercise progressions utilized in the rehabilitation process. Students will develop an understanding the disablement model, learning how to plan, implement, document, and evaluate programs for the rehabilitation and reconditioning of injuries of those patients involved with physical activity. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 201 and HEXS 208, or permission.*

### **HEXS 400 Science of Training Athletes**

This course is designed to give students a strong scientific understanding of principles used to train athletes across all sports. Students will become competent using dynamic (Olympic) lifting techniques as well as cutting edge assessment tools and analyses that shape program design. The course will use concepts from human physiology and movement science and will synthesize them into a coherent framework for developing and implementing training regimens with athletes. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 201 and HEXS 325 or permission.*

### **HEXS 402 Special Populations**

This course is designed to provide students with the appropriate knowledge and skills to conduct exercise tests and develop exercise prescriptions for special populations. The course applies models of exercise physiology, movement science and health/fitness concepts and synthesizes them into a coherent framework for working with youth, older adults, pregnant women, and individuals with cardiovascular, metabolic and pulmonary conditions. In addition, this course prepares students for certification through the American College of Sports Medicine. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 325 or permission.*

#### **HEXS 405, 406, 407 Independent Study or Research**

A program of advanced intensive study and/or research in health and exercise science under the guidance of departmental staff. (Admission with recommendation of the directing professor and approval of the department chair.) (1/2, 1, 1/2)

#### **HEXS 415 Evaluation of Athletic Injuries**

This course will provide students with a thorough understanding of the procedures for evaluation of athletic injuries. Emphasis will be placed on the head, spine, and upper and lower extremities. (1)

Lecture: 3 hrs./wk.

*Prerequisites: BIOL 230 and permission.*

#### **HEXS 416 Internship**

Field experience in health and exercise science. (1)

*Prerequisite: Permission of internship supervisor and department chair; completion of HEXS 223, Introduction to Emergency Care, or equivalent.*

#### **HEXS 420 Special Topic In Health and Exercise Science**

Study of a special topic in health and exercise science and not regularly offered. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

#### **HEXS 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

### **HEALTH AND HUMAN PERFORMANCE**

*Associate Professors Elizabeth Ackley, Michael Maina, K. C. Mayer, Matthew Rearick (Chair), Julie Schlegel; Assistant Professor Olzhas Taniyev, Taylor Rowley; Teaching Associate Shawn Urbanek.*

Two majors are offered by the Health and Human Performance Department. Health and Exercise Science (Bachelor of Science or Bachelor of Arts); and Sport Management (Bachelor of Science). Please see the Health and Exercise Science or Sport Management areas of this catalog for program details and course listings for those majors.

#### ***Health and Physical Education***

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

#### **Physical Education General Education Requirement**

All students must successfully complete Health and Human Performance 160 (Fitness for Life). In addition, students must take one other lifetime activity course (Health and Human Performance 101-157). Health and Human Performance 160 is a prerequisite for all other activity classes.

Varsity athletes may receive competency in one lifetime activity but must successfully complete Health and Human Performance 160 (Fitness for Life). Students will receive competency in a varsity sport after successfully completing the varsity season at Roanoke College.

Credit for Health and Human Performance Activities will be in addition to the total units required for graduation. Enrollment for credit in health and human performance activities is limited to the number required for graduation

and cannot exceed two. The College has the capacity of offering adaptive health and human performance to individuals with disabilities who must have a modified program.

The Department offers the following one-quarter unit activity courses:

HHP 101-159	General (each 1/4 unit)
HHP 101	Tennis
HHP 106	Badminton
HHP 110	Jump Rope
HHP 114	Yoga
HHP 130	Scuba Diving (Swimming proficiency is necessary and student may be required to take a swim test. Extra fee required. Must provide own transportation [arranged in class] for open dives. Completion of certification is possible in the course. Must provide own mask, fins, and snorkel. Open dives often scheduled on weekends.)
HHP 141	Fencing
HHP 142	Hiking & Backpacking (Some Saturday and overnight weekend hikes are scheduled and required. Must provide own transportation [arranged in class]. May be required to provide own equipment.)
HHP 159	Pilates

### **HHP 160 Fitness for Life**

This course is designed to introduce the student to health and physical fitness components related to developing a healthy lifestyle. It will include physical fitness activities, health risk components, assessment, and the development of a personal health and fitness plan. (1/4)

Lecture: 3 hrs./wk.

*Prerequisite: None; this course must be taken prior to enrolling in other HHP activity courses.*

**The following courses do not meet General Education requirements in Health and Human Performance but are required for the major in Health and Physical Education.**

### **HHP 210 Individual and Team Sport Activities**

This course is designed to provide prospective Physical Education teachers with the opportunity to understand, demonstrate and teach individual and team sport activities including tennis, soccer, and swimming.

Lecture and Laboratory: 3 hrs./wk.

*Prerequisite: HHP 195 or SPMT 190.*

### **HHP 410 Physical Education Methods and Materials: PK-12**

This course is designed to prepare students in effective curriculum design, instructional delivery, performance assessment, and classroom management specific to teaching physical education in Grades PK-12. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HEXS 195 and 210 or permission.*

## **HEALTH CARE ADMINISTRATION**

*Professor Alice Kassens*

A major in Health Care Administration is not offered at Roanoke College.

The Health Care Administration concentration is designed primarily for students interested in Hospital or Health Care Administration. A major in Health Care is not offered at Roanoke College. It is likely that most of these students will pursue (eventually or immediately after graduation) a master's degree in Hospital/Health Care Administration. Ultimately, they would be likely to work for a hospital, health maintenance organization, or public or private medical facility.

A cumulative grade point average of at least 2.0 in all prerequisite course work is required for admission to the Health Care Administration concentration. In addition, the student must earn a 2.0 cumulative grade point average in all course work required to complete the concentration. The concentration is achieved by completion of the following courses (with prerequisites noted):

## Concentration in Health Care Administration

The concentration is achieved by completion of the following courses (with prerequisites noted):

BUAD 205	Accounting for Decision Making
BUAD 274	Human Resource Management
ECON 227	Health Economics (ECON 120 or ECON 121)
PHST 101	Health and Society: Introduction to Public Health
PHIL 223	Ethics and Medicine

And one unit from the following courses:

BUAD 264	Foundation of Leadership
BUAD 324	Training & Development (BUAD 274)
BUAD 364	Team Dynamics (BUAD 254 or PSYC 382)
BUAD 406	Independent Study (in health care)
BUAD 416	Internship (in health care)

## HISTORY

*Professors Gary Gibbs, Michael Hakkenberg, Mary Henold, Whitney Leeson, Ivonne Wallace-Fuentes, Stella Xu; Associate Professors Jesse Bucher, Jason Hawke, Samantha Rosenthal, Robert Willingham (Chair)*

A major in history requires the completion of 12 units.

These include:

- A. Two units at the 100-level, either 110 or 120, and either 130 or 140.**
- B. At least one unit from each of the following 200-level groups:**
  - 1. Pre-Modern History (pre-1600) 211, 212, 213, 214, 218, 223, 230, 231, 233, 235, 290 (where appropriate)
  - 2. Modern History and US History 200, 205, 206, 207, 209, 241, 242, 243, 244, 245, 246, 261, 262, 263, 264, 265, 266, 268, 269, 290 (where appropriate)
  - 3. Non-Western History 208, 210, 254, 255, 256, 272, 281, 282, 283, 284, 285, 290 (where appropriate)
- C. History 300: Historical Methods**
- D. One unit from 300-level issues pre-modern or non-western courses:**
  - 1. Pre-Modern History (pre-1600) 310, 320, 325, 330 OR
  - 2. Non-Western History (post-1600) 305, 350, 375, 380
- E. History 490: Research Seminar**
- F. Four electives: two units at the 200 level or higher, and two units at the 300 level or higher, one of which must be a 300-level issues course.**

Experiential Learning: all students must have one of their courses serve as an Experiential Learning course. Such Experiential Learning courses are characterized by one or more of the following, (1) the student works on an individually-defined and approved project under the supervision of experts in the field; (2) the student directly engages methodologies that work best outside of the classroom and require significant concentrations of time or interaction with people (such as oral interviews; map-making; historical surveys, etc.); (3) the student typically pursues activities off-campus, such as at a local museum or an archaeological site, etc.; (4) the student will engage imaginative approaches to learning the discipline of History, such as in role playing courses or in Living History reconstructions; (5) the student travels to conduct research or studies abroad.

Current Experiential Learning Courses include: 205, 206, 207, 208, 209, 218, 273, 290 where appropriate, 400 level courses where appropriate and approved by the chair; INQ 177, 277, and 377 where the topic is appropriate and approved by the chair.

The department strongly encourages all majors to explore the possibilities of international study through the May Term Intensive Learning, or summer programs, and semester or year-long study abroad options.

Students planning subsequent graduate study are advised that work in at least one foreign language is very important. Program advisors should be consulted in selecting specific languages to study.

## **Minor in History**

A minor in history requires six units, including two 100-level units (110, 120, 130, or 140) and any four units at or above the 200 level.

### **HIST 110 Ancient World**

This course is a survey of world history from the Mesolithic era to ca. 500 CE, emphasizing a regional and cross-cultural analysis of varying political, economic, social, and religious systems. (1)

Lecture: 3 hrs./wk.

### **HIST 120 Medieval World**

This course is a survey of world history from ca. 500CE to ca. 1400 CE, emphasizing a regional and cross-cultural analysis of varying political, economic, social, and religious systems. (1)

Lecture: 3 hrs./wk.

### **HIST 130 Early Modern World History**

This course is a survey of world history from ca. 1400 CE to ca. 1800 CE, emphasizing a regional and cross-cultural analysis of varying political, economic, social, and religious systems. (1)

Lecture: 3 hrs./wk.

### **HIST 140 The Modern World**

This course is a survey of world history from ca. 1800 CE to today, emphasizing a regional and cross-cultural analysis of varying political, economic, social, and religious systems. (1)

Lecture: 3 hrs./wk.

### **HIST 200 United States History**

A broad survey of the forces and structures of American history. (1)

Lecture: 3 hrs./wk.

### **HIST 205 Introduction to Public History**

This course uses a combination of scholarship, practice, and theory to introduce the burgeoning field of Public History. Special focus will be given to museums, archives, oral history, cultural landscapes, and controversial topics. (1)

Lecture: 3 hrs./wk.

### **HIST 206 Historical Archaeology**

The course emphasizes how integration of the archaeological record, the archival record, and oral tradition provides insight into the recent past, focusing on issues of class, gender, ethnicity, and race as experienced by peoples living in an era of the global expansion of capitalism. (1)

Lecture: 3 hrs./wk.

### **HIST 207 Objects, Buildings, Landscapes**

This course surveys the origins, functions, and transformations of American material culture. Special focus will be on American housing, furnishings, foodways, adornment, cultural landscapes, and cemeteries. (1)

Lecture: 3 hrs./wk.

### **HIST 208 Archaeology of Slavery**

This course surveys of the field of African Diaspora Archaeology. Special focus is given to the diverse cultures of enslaved people. (1)

Lecture: 3 hrs./wk.

### **HIST 209 Introduction to Digital History**

The recent growth of digital history is revolutionizing the way that historians research, teach, and interpret the past. Since the 1990s historians and computer scientists have worked hand-in-hand to develop new online tools for archiving, data mining, and presenting primary sources and engaging with new audiences. This course gives students the opportunity to develop marketable skills in web development as well as the application of online software and digital tools for conducting and presenting historical research. We also pay attention to the theoretical and methodological issues pertinent to the practice of doing digital history. (1)

Lecture: 3 hrs./wk.

### **HIST 210 Environmental History**

A survey which explores the relationship between history and the environment, with focus on a specific area of the world, and the connection between a people and its habitat through time. (1) . (Cross-listed as ENST 210),

Lecture: 3 hrs./wk.

### **HIST 211 The Origins of War**

Explores the place of warfare in the development of human civilization, from its prehistoric origins through the classical period (ending approximately 500 CE). Themes of the course include the definition of warfare versus other types of conflict; the social and cultural impulses that have driven societies to mobilize for armed conflict; anthropological and archaeological approaches to studying warfare; the ritual and cultural constructs ancient societies mobilized and employed in their pursuit of war; and the implications of warfare for social, cultural, and political symbols in ancient civilizations. (1)

Lecture: 3 hrs./wk.

### **HIST 212 Ancient Greece**

A survey of the political, intellectual, and cultural history of the Greek world from the Late Bronze Age to the rise of Alexander the Great (1300 - 336 BCE). (1)

Lecture: 3 hrs./wk.

### **HIST 213 Age of Alexander the Great**

A survey of the Hellenistic Age of Greece, from the fourth century BCE to the rise of Rome in the first century BCE, with an emphasis on political, cultural, and intellectual history. (1)

Lecture: 3 hrs./wk.

### **HIST 214 Ancient Rome**

A survey of the history of ancient Rome from its eighth-century BCE beginnings to the fall of the Roman Empire in the West in 476 CE. (1)

Lecture: 3 hrs./wk.

### **HIST 218 Introduction to Archaeology**

An introduction to the theories and methods used by archaeologists to reconstruct the cultural practices of past human societies, from religion and authority to domestic life and trade. Case studies introduce students to archaeological sites in places such as Egypt, Greece, Mesoamerica, and North America. (Cross-listed as ANTH 218/ARTH 218). (1)

Lecture: 3 hrs./wk., Laboratory: 2 hrs./wk.

### **HIST 223 Medieval England**

An introduction to the history of Roman and medieval England. (1)

Lecture: 3 hrs./wk.

### **HIST 230 The Renaissance**

A study of life and thought as reflected in Italian beginnings, transalpine diffusion, and impact upon Europe. (1)

Lecture: 3 hrs./wk.

### **HIST 231 The Reformation**

The religious reformations of the 16th century and their environment: political, social, economic, intellectual, and religious. (1) (Cross-listed as RELG 212).

Lecture: 3 hrs./wk.

### **HIST 235 The Witch-hunts of Early Modern Europe**

An examination of the intellectual and legal foundations of the great European witch-hunt, as well as elite and popular concepts of magic, witchcraft, and heresy. Case studies focus on continental Europe, but also include England and New England. (1)

Lecture: 3 hrs./wk.

### **HIST 241 Modern Russia**

A survey of the cultural, social, political, and economic influences that have shaped modern Russia. Emphasis on the 19th and 20th centuries, the Soviet period, and post-Soviet developments. (1)

Lecture: 3 hrs./wk.

### **HIST 243 Modern Britain**

Emphasis is on the emergence of the modern English nation under the Tudors, the evolution of constitutional and parliamentary government, the development of the British Empire and its role in world affairs in the 19th and 20th centuries. (1)

Lecture: 3 hrs./wk.

### **HIST 244 Ireland**

A survey of the history of Ireland from the ancient period to modern times. Our focus will be interdisciplinary, examining politics, religion, economic development, culture, and, of course, the very long Irish relationships with Rome and London. (1)

Lecture: 3 hrs./wk.

### **HIST 245 World War II**

An introduction to the military, strategic, and diplomatic history of the Second World War. (1)

Lecture: 3 hrs./wk.

### **HIST 246 The Holocaust**

An historical account and a philosophical analysis of the Holocaust, including an examination of theological reactions to this event. (1) (Cross-listed as RELG 246).

Lecture: 3 hrs./wk.

### **HIST 254 Africa from 1850**

A survey of Africa's history from 1850 to the present, that focuses on the wide-ranging social, political, and economic changes that took place on the African continent. (1)

Lecture: 3 hrs./wk.

### **HIST 255 South Africa**

A survey of South Africa's history from the colonial period to the present. (1)

Lecture: 3 hrs./wk.

### **HIST 256 Black Political Thought in Africa and the African Diaspora**

This survey offers an intellectual history of black political thought in Africa and the African Diaspora between ca. 1750 and the present. The course traces the major questions and issues that both informed and shaped the development of black political thought, and emphasizes how shared histories of slavery, colonialism, and racism unfolded in different parts of the world. (1)

Lecture: 3 hrs./wk.

### **HIST 261 Civil War**

A survey designed to examine the causes of the sectional conflict, the course of events, and the consequences of the war. (1)

Lecture: 3 hrs./wk.

### **HIST 262 U.S. Women's History**

A survey of the history of American women from the colonial period to the present. (1)

Lecture: 3 hrs./wk.

### **HIST 263 Post-1945 US History**

An exploration of the social and cultural history of the United States in the three decades following World War II. (1)

Lecture: 3 hrs./wk.

### **HIST 264 American Presidents and the Presidency**

A study of the institution of the Presidency, and the lives of the individuals who have this office. (1)



Lecture: 3 hrs./wk.

### **HIST 265 American Military Traditions**

A survey of America's military experience with an emphasis upon the interrelationship of war and society. (1)

Lecture: 3 hrs./wk.

### **HIST 266 Modern American Diplomatic History**

An examination of the emergence and development of the United States as a world power, focusing on its evolving foreign policy. (1)

Lecture: 3 hrs./wk.

### **HIST 268 The Vietnam War**

An analysis of America's longest war that concentrates on politics and diplomacy, but examines military and social factors as well. (1)

Lecture: 3 hrs./wk.

### **HIST 269 History of Sexuality in the U.S.**

An examination of sexual practices and attitudes towards sexuality over the past five hundred years, with an emphasis on the United States. Topics may include Black and indigenous sexualities, queer, trans, and intersex communities, and examination of law, medicine, culture, and politics. (1)

Lecture: 3 hrs./wk.

### **HIST 272 Latin America**

A thematic survey of Latin America's indigenous background, colonization, independence, and national period. (1)

Lecture: 3 hrs./wk.

### **HIST 273 Latin American Revolutions**

A survey of key revolutionary turning points in Latin America, with special focus on the twentieth century. (1)

Lecture: 3 hrs./wk.

### **HIST 281 Early East Asia**

China, Japan, and Korea through the 19th century, with emphasis on social, political, and intellectual developments. (1)

Lecture: 3 hrs./wk.

### **HIST 282 Modern East Asia**

China, Japan, and Korea since the late 19th century. (1)

Lecture: 3 hrs./wk.

### **HIST 283 East Asian History in Films**

How can we understand history through films? How can we develop a critical view on history through examining historical films? How close to or how different from history are the films? This course examines East Asian historical events as reflected in various films produced in East Asian countries. By framing visual representations in their respective historical context, we will discuss political, social, and cultural evolutions that took place in China, Japan, and Korea from the fourth century to the contemporary period. (1)

Lecture: 3 hrs./wk.; Lab 3 hrs./wk.

### **HIST 284 Modern Middle East**

An examination of the modern political, social, religious, and economic sources of tension and growth in one of the most dynamic and unsettled regions of the world. The course focuses on trends and events in the 20th century. (1)

Lecture: 3 hrs./wk.

### **HIST 285 South Asia**

An introduction to the major themes and topics of South Asian culture, and history. (1)

Lecture: 3 hrs./wks.

### **HIST 290 Special Studies**

Investigation of a special topic not regularly offered, with the topic determined by the history faculty. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

### **HIST 300 Historical Methods**

This course serves as the introduction to the discipline, examining both the theory and practice of history. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Completion of one 100-level HIST course, sophomore standing.*

### **HIST 305 Issues in World History**

An examination of issues of significance to the field. May be repeated for credit with different topics. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 310 Issues in Ancient History**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 320 Issues in the Middle Ages**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 325 Issues in the Renaissance and Reformation**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 330 Issues in Early Modern History**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 335 Issues in British History**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 340 Issues in Modern European History**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 350 Issues in Africa**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 360 Issues in Early America**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: History 300 or permission.*

### **HIST 365 Issues in 19th-Century America**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 370 Issues in Modern America**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 375 Issues in Latin American and Caribbean History**

An examination of issues of significance to the period. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisites: HIST 300 or permission.*

### **HIST 380 Issues in East Asian History**

An examination of issues of significance in the field. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HIST 300 or permission.*

### **HIST 390 Issues in Public History**

An examination of issues of significance in the field. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisite: HIST 300 or permission.*

### **HIST 395, 396 Henry H. Fowler Public Policy Seminar**

A seminar taught with a scholar-statesperson that deals with a policy issue of public significance. (Made possible by the Henry H. Fowler Endowment. Open to selected students with department permission.) (1, 1/2)

### **HIST 401 Archives Practicum**

Experience in the field of archives management, under the guidance of the College archivist. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission of the Instructor.*

### **HIST 402 Historical Journal Editing Practicum**

An internship in the 16th-century Journal Book Review Office. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **HIST 403 Museum Practicum**

Experience in the field of museum management under the guidance of the Salem Museum director. (1)

*Prerequisite: Permission of the instructor.*

### **HIST 404 Library Practicum**

Experience in the field of library science under the guidance of the Library staff. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **HIST 405, 406, 407 Independent Study**

Supervised reading and research in a selected historical field. (1/2, 1, 1/2)

*Prerequisite: Permission.*

### **HIST 408 Public History Practicum**

Experience in the field of Public History under the guidance of a Roanoke College faculty member. (1)

*Prerequisite: Permission.*

### **HIST 415, 416, 417 Internship**

Experience in a field of applied history, under the guidance of a member of the history faculty. (1/2, 1, 1/2)

*Prerequisite: Permission.*

### **HIST 490 Research Seminar**

A seminar approach to selected topics for advanced students. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **HIST 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **HONORS**

*Associate Professor William Brenzovich (Director); Associate Professor Margaret Rahmoeller (Associate Director)*

Honors courses address the same learning outcomes as Intellectual Inquiry courses but employ more challenging or sophisticated approaches and include engagement components that reach beyond the classroom. HNRS 110 and HNRS 300 are open to Honors students only. HNRS 120 may also be open, by application, to qualified non-Honors students who are interested in joining the program. The 200-level Honors courses are open to all students with a minimum 3.2 cumulative grade point average. These courses will satisfy the parallel Intellectual Inquiry course requirements without using one of the student's allowed substitutions.

### **HNRS 110 Honors Seminar**

Introduces students to critical thinking in higher education, taking as its starting point a focused topic in a scholarly field. Critical inquiry will be taught in the context of careful reading of important intellectual works, as well as inquiry-based writing assignments. Research and collaborative skills will also be developed in an integrative setting designed to promote a student's journey toward a life of critical inquiry. Includes an engagement component that reaches beyond the classroom. (Credit cannot be received for both HNRS 110 and INQ 110.)

(1)

Lecture: 3 hrs./wk.

*Prerequisite: Admission to Honors Program.*

### **HNRS 111, 112 Portfolio Seminar I**

A two-semester sequence that connects students to the campus and community through an exploration of cultural, intellectual, and service activities as well as academic and personal goals. Includes initial development of the Honors Portfolio. Pass/Fail (¼, ¼)

Lecture: 1 hr./wk.

*Prerequisite: Admission to the Honors Program.*

### **HNRS 120 Living an Examined Life**

Investigates questions of values, individual and communal, from the standpoint of a particular field of learning. The course will teach reasoning skills through reading, writing, and oral communication by linking key works with broader traditions of critical reflections on the good life. Students will be encouraged to explore ways in which they can use the course material for their own reflections on what it means to live well. Includes an engagement component that reaches beyond the classroom. (Credit cannot be received for both HNRS 120 and INQ 120.) (1)

Lecture: 3 hrs./wk.

*Prerequisite: HNRS 110 or permission.*

### **HNRS 213 Portfolio Seminar II**

A one-semester sequence that encourages students to develop deeper connections to the campus and community by focusing on a single cultural, intellectual or service activity each semester while further developing academic and personal goals. Provides a foundation for the Distinction Project and continues development of the Honors Portfolio. Pass/Fail (¼)

Lecture: 1 hr./wk.

*Prerequisite: Admission to the Honors Program.*

### **HNRS 240 Statistical Reasoning**

Provides an inquiry-focused introduction to statistical methodologies. Students will gain an understanding of how

decision making is accomplished using modern statistical techniques. Topics include descriptive statistics, graphical methods, estimation, elementary probability, and statistical inference; students will apply the techniques of data analysis to data sets and statistical studies that address questions of the perspective. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 240 and INQ 240.) (1)

Lecture: 3 hrs./wk.

### **HNRS 241 Mathematical Reasoning**

Develops the ability to use quantitative, mathematical, and computational reasoning by exploring a problem or issue. Through a focused topic, students gain insight into mathematics or computer science as a mode of inquiry. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 241 and INQ 241.)

(1)

Lecture: 3 hrs./wk.

### **HNRS 250 Scientific Reasoning I**

Introduces the methodologies of the natural sciences through an inquiry-focused approach to a topic. Students will explore the types of questions that science asks and how it attempts to answer them by defining and classifying information, developing models, identifying patterns, and drawing conclusions based upon data. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 250 and INQ 250 from the same discipline.) (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

### **HNRS 251 Scientific Reasoning II**

Develops the ability to use the methodologies of the natural sciences by exploring a science topic in depth. The course will be narrowly focused within science while allowing connection to a social, political, ethical, or historical issue. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 251 and INQ 251.) (1)

Lecture: 3 hrs./wk.

### **HNRS 260 Social Scientific Reasoning**

Introduces the methodologies of the social sciences through an inquiry-focused approach to a topic. The course seeks to develop students' critical thinking skills through the exploration and application of social scientific methods. Individual sections will be taught in a particular discipline. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 260 and INQ 260 from the same discipline.) (1)

Lecture: 3 hrs./wk.

### **HNRS 270 Human Heritage I**

Develops a sense of historical perspective and the ability to use the methodologies of the humanities or the fine arts by exploring a subject drawn from the period before 1500. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 270 and INQ 270.) (1)

Lecture: 3 hrs./wk.

### **HNRS 271 Human Heritage II**

Develops a sense of historical perspective and the ability to use the methodologies of the humanities or the fine arts by exploring a subject drawn from the period from 1500 to the present. Includes an engagement component that reaches beyond the classroom. Open to Honors students or non-Honors students with a cumulative GPA of at least 3.2. (Credit cannot be received for both HNRS 271 and INQ 271.) (1)

Lecture: 3 hrs./wk.

### **HNRS 300 Contemporary Issues**

Asks students to look back on their experiences and their work in the Honors curriculum in order to make explicit, meaningful connections to contemporary issues. In addition to individual written assignments, students will work in small groups to research and develop a proposal concerning a concept, approach, or solution to a problem that will be presented in a formal defense. Includes an engagement component that reaches beyond the classroom. (Credit cannot be received for both HNRS 300 and INQ 300.)

Lecture: 3 hrs./wk.

*Prerequisite: Admission to the Honors Program and completion of all 100-level and 200-level HNRS requirements.*

### **HNRS 314 Portfolio Seminar III**

This capstone course of the Portfolio Seminar series encourages students to continue development of academic and personal goals via exploration of strengths, reflection on scholarly journey, and preparation for endeavors beyond Roanoke College. They will also cultivate skills in CV/resume development, cover letter/personal statement development, and presentation of self. (1/4)

*Prerequisite: HNRS 213 and successful proposal of Honors Distinction Project.*

### **HNRS 405/406/407 Independent Study**

An independent project used as part of the Honors Distinction project, which is conducted under the direction of a faculty member. (½, 1, ½)

*Prerequisite: Junior standing in the Honors Program or permission.*

### **HNRS 416 Internship**

An internship used as part of the Honors Distinction project, which is conducted under the direction of a faculty member. (1)

*Prerequisite: Junior standing in the Honors Program or permission.*

## **INTELLECTUAL INQUIRY**

*Associate Professor Leslie Warden, Assistant Vice President for Curriculum and Advising*

Eleven one-unit courses make up the Intellectual Inquiry Curriculum. To complete degree requirements credit must be received for the two first-year seminar courses, one Intensive Learning Course, the required number of Intellectual Inquiry Perspectives courses, and the capstone. HNRS courses will satisfy the parallel Intellectual Inquiry course requirements without using one of the student's allowed substitutions.

*All INQ courses emphasize critical thinking.*

### **INQ 110 Intellectual Inquiry**

Introduces students to critical thinking in higher education, taking as its starting point a focused topic in a scholarly field. Critical inquiry will be taught in the context of careful reading of important intellectual works, as well as inquiry-based writing assignments. Research and collaborative skills will also be developed in an integrative setting designed to promote a student's journey toward a life of critical inquiry. (Credit cannot be received for both HNRS 110 and INQ 110.) (1)

Lecture: 3 hrs./wk.

### **INQ 120 Living an Examined Life**

Investigates questions of values, individual and communal, from the standpoint of a particular field of learning. The course will teach reasoning skills through reading, writing, and oral communication by linking key works with broader traditions of critical reflections on the good life. Students will be encouraged to explore ways in which they can use the course material for their own reflections on what it means to live well. (Credit cannot be received for both HNRS 120 and INQ 120.) (1)

Lecture: 3 hrs./wk.

### **INQ 177/277/377/477 Intensive Learning**

Concentrated study of a special topic from any department. Consult the Courses Offered List for a brief description of each course. Courses that can be used for major credit in a department are cross-listed with departmental offerings. (1)

*Prerequisites: Set by the instructor*

### **INQ 240 Statistical Reasoning**

Provides an inquiry-focused introduction to statistical methodologies. Students will gain an understanding of how decision making is accomplished using modern statistical techniques. Topics include descriptive statistics, graphical methods, estimation, elementary probability, and statistical inference; students will apply the techniques of data analysis to data sets and statistical studies that address the course theme. (Credit cannot be received for both HNRS 240 and INQ 240.) (1)

Lecture: 3 hrs./wk.

### **INQ 241 Mathematical Reasoning**

Develops the ability to use quantitative, mathematical, and computational reasoning by exploring a problem or issue. Through a focused topic, students gain insight into mathematics or computer science as a mode of inquiry. (Credit cannot be received for both HNRS 241 and INQ 241.) (1)

Lecture: 3 hrs./wk.

### **INQ 250 Scientific Reasoning I**

Introduces the methodologies of the natural sciences through an inquiry-focused approach to a topic. Students will explore the types of questions that science asks and how it attempts to answer them by defining and classifying information, developing models, identifying patterns, and drawing conclusions based upon data. (Credit cannot be received for both HNRS 250 and INQ 250 from the same discipline.) (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

### **INQ 251 Scientific Reasoning II**

Develops the ability to use the methodologies of the natural sciences by exploring a science topic in depth. The course will be narrowly focused within science while allowing connection to a social, political, ethical, or historical issue. (Credit cannot be received for both HNRS 251 and INQ 251.) (1)

Lecture: 3 hrs./wk.

### **INQ 260 Social Scientific Reasoning**

Introduces the methodologies of the social sciences through an inquiry-focused approach to a topic. The course seeks to develop students' critical thinking skills through the exploration and application of social scientific methods, individual sections will be taught in a particular discipline. (Credit cannot be received for both HNRS 260 and INQ 260 from the same discipline.) (1)

Lecture: 3 hrs./wk.

### **INQ 270 Human Heritage I**

Develops a sense of historical perspective and the ability to use the methodologies of the humanities or the fine arts by exploring a subject drawn from the period before 1500. (Credit cannot be received for both HNRS 270 and INQ 270.) (1)

Lecture: 3 hrs./wk.

### **INQ 271 Human Heritage II**

Develops a sense of historical perspective and the ability to use the methodologies of the humanities or the fine arts by exploring a subject drawn from the period from 1500 to the present. (Credit cannot be received for both HNRS 271 and INQ 271.) (1)

Lecture: 3 hrs./wk.

### **INQ 300 Contemporary Issues**

Asks students to look back on their experiences and their work in the Intellectual Inquiry Curriculum in order to make explicit, meaningful connections to contemporary issues. In addition to individual written assignments, students will work in small groups to research and develop a proposal concerning a concept, approach, or solution to a problem that will be presented in a formal defense. (Credit cannot be received for both HNRS 300 and INQ 300.) (1)

Lecture: 3 hrs./wk.

*Prerequisite: Completion of all required 100-level and -200-level INQ courses.*

## INTERNATIONAL RELATIONS

*Professor Joshua Rubongoya; Associate Professors Andreea Mihalache-O'Keef (Chair), Jonathan Snow, Coordinator*

The Bachelor of Arts degree with a major in international relations is awarded to students who successfully complete 13 units from the program of study outlined below.

### I. Core Requirements

#### **Students must complete each of the following:**

- |    |   |  |
|----|---|--|
| A. | POLI 111  | Issues in Global Politics                    |
| B. | I.R./POLI 231   | International Politics                       |
| C. | I.R./POLI 247   | Theory in International Relations            |
| D. | I.R./POLI/CJUS 209                                      | Research Methods in Public Affairs           |
| E. | I.R. 401  | Seminar in International Relations           |
| F. | <b><u>One unit of International Economics from:</u></b> |  |
|    | ECON 122  | Principles, Macro                            |
|    | I.R./POLI 333   | Global Political Economy                     |
| G. | <b><u>One unit of Comparative Politics from:</u></b>    |  |
|    | I.R./POLI 221   | Comparative Political Systems: Europe        |
|    | I.R./POLI 222   | Comparative Political Systems: Asia          |
|    | I.R./POLI 223   | Comparative Political Systems: Middle East   |
|    | I.R./POLI 224   | Comparative Political Systems: Africa        |
|    | I.R./POLI 225   | Comparative Political Systems: Latin America |

### II. Western Perspectives

#### A. *American Perspectives*

##### **One unit from:**

- |               |  |
|---------------|--|
| HIST 262      | U.S. Women's History                         |
| HIST 266      | Modern American Diplomatic History           |
| HIST 272      | Latin America                                |
| HIST 273      | Latin American Revolutions                   |
| I.R./POLI 225 | Comparative Political Systems: Latin America |
| I.R./POLI 353 | U.S. Foreign Policy                          |
| SPAN 315      | Contemporary Issues: Spanish America         |

#### B. *European Perspectives*

##### **One unit from:**

- |                   |                                       |
|-------------------|---------------------------------------|
| GRMN 315          | The Post-War Germanys                 |
| HIST 241          | Modern Russia                         |
| HIST 243          | Modern Britain                        |
| HIST 244          | Ireland                               |
| HIST 246/RELG 246 | The Holocaust                         |
| HIST 340          | Issues in Modern European History     |
| I.R./POLI 221     | Comparative Political Systems: Europe |

### III. Global Perspectives

#### **One unit from:**

- |                    |                               |
|--------------------|-------------------------------|
| GEOG 110           | World Geography               |
| I.R./POLI 232      | International Organizations   |
| I.R./POLI 233      | International Law             |
| I.R./POLI 351      | Environmental Public Policy   |
| I.R./POLI 352      | Human Rights Policy           |
| ANTH/PHST/SOCI 202 | Global Health and Culture     |
| RELG 130           | Living Religions of the World |

### IV. Non-Western Perspectives

#### **One unit from:**

- |          |                  |
|----------|------------------|
| HIST 254 | Africa from 1850 |
|----------|------------------|



HIST 255	South Africa
HIST 256	Black Political Thought in Africa and the African Diaspora
HIST 282	Modern East Asia
HIST 284	Modern Middle East
I.R./POLI 222	Comparative Political Systems: Asia
I.R./POLI 223	Comparative Political Systems: Middle East
I.R./POLI 224	Comparative Political Systems: Africa
I.R./POLI 234	The Arab-Israeli Conflict

#### V. Additional Perspectives

Students must select two additional units from among the previously listed courses and/or from among the following:

ANTH 101	Introduction to Cultural Anthropology
ANTH/PHST/SOCI 202	Global Health and Culture
BUAD 211	Introduction to Global Management
BUAD 333	Global Marketing
CJUS 325	Comparative Law Enforcement
CJUS/SOCI 326	Comparative Corrections
ECON 247	International Trade and Finance
FREN 311	Building a Nation: French Civilization and Culture I <b>or</b> FREN 312 A Nation Emerges: French Civilization and Culture II <b>or</b> FREN 315 Francophone Societies
GRMN 311	German Civilization and Culture <b>or</b> GRMN 314 Cultures of German-Speaking Countries
HIST 140	Modern World
HIST 268	The Vietnam War
HIST 370	Issues in Modern America
I.R. 261	Selected Topics in International Relations
SOCI 335	Global Population Problems
SOCI 338	Women's Lives Around the World: Global Perspectives
SPAN 311	Spanish Civilization and its Plural Nationalities <b>or</b>
SPAN 312	Latin America and its Native and Hybrid Cultures.

Students may also select an approved independent study, internship, intensive learning, honors in major or seminar unit within a relevant discipline. This must be approved by the major coordinator.

No more than 2 units of 100-level courses can be counted toward the major.

#### ***Please note:***

1. I.R./POLI 221 (Comparative Political Systems: Europe); I.R./POLI 222 (Comparative Political Systems: Asia); I.R./POLI 223 (Comparative Political Systems: Middle East); I.R./POLI 224 (Comparative Political Systems: Africa); and I.R./POLI 225 (Comparative Political Systems: Latin America) may each be offered for major credit in only one of the above categories.
2. POLI 261, HIST 290, or RELG 270 or any one unit INQ or HNRS course other than 110 or 120 may serve toward the major whenever the specific topical focus is international and/or comparative in scope as determined by the major coordinator.
3. HIST 350, 375 or 380 may serve towards the major whenever the specific topical focus is international and/or comparative in scope and falls within a modern era time frame as determined by the major coordinator.

#### **I.R. 106 Research Experience**

Directed experiences conducting research under the supervision of a faculty member. Open to all students (major and non-major). May be repeated once for credit. (1/2)

*Prerequisite: Written application approved by department.*

#### **I.R. 209 Research Methods in Public Affairs**

An examination of the research methodologies and techniques used in the study of public policy and politics. The course emphasizes both qualitative and quantitative methods. The lab focuses on statistical applications. (1) (Cross-listed as CJUS 209/POLI 209)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: Sophomore standing, POLI 111 or 112, one other course in the major; or ENST 105 or permission.*

#### **I.R. 221 Comparative Political Systems: Europe**

The government and politics of Great Britain, France, Germany, Russia, and selected other European states as well as the operations of the European Union. (1) (Cross-listed with POLI 221)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 222 Comparative Political Systems: Asia**

The government and politics of Japan, China, and Indonesia and ASEAN. (1) (Cross-listed with POLI 222)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 223 Comparative Political Systems: Middle East**

The Government and politics of the Middle East. (1) (Cross-listed as POLI 223)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 224 Comparative Political Systems: Africa**

The government and politics of Sub-Saharan African politics. (1) (Cross-listed with POLI 224)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 225 Comparative Political Systems: Latin America**

The government and politics of Latin America, including Central America and the Caribbean. (1) (Cross-listed with POLI 225)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 231 International Politics**

An examination of the nature of the international political system, the perspectives and behaviors of nation-states, and the role and influence of both intergovernmental organizations and non-governmental actors. (1) (Cross-listed with POLI 231)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 232 International Organizations**

An examination of global and regional organizations. The nature and functions of both governmental and non-governmental institutions will be discussed. A model United Nations Security Council simulation exercise is an integral course component. (1) (Cross-listed with POLI 232)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 233 International Law**

An examination of the nature, structure, functions and evolution of the international legal system. The impact of international law on the behavior of international actors and the dynamics of the international system will be explored. (1) (Cross-listed with POLI 233)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **I.R. 234 The Arab-Israeli Conflict**

An examination of the evolution, facts, and narratives that drive the ongoing Arab-Israeli conflict broadly, and the Israeli-Palestinian conflict in particular. (1) (Cross-listed as POLI 234)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **I.R. 247 Theory in International Relations**

In-depth examination of the theoretical lenses in the field of International Relations, complemented by the application of the theories to contemporary global issues. (1) (Cross-listed with POLI 247)

Lecture: 3 hrs./wk.

*Prerequisite: I.R./POLI 231 or permission.*

### **I.R. 261 Selected Topics in International Relations**

An examination of selected topics in international relations. (1)

Lecture: 3 hrs./wk.

### **I.R. 333 Global Political Economy**

An introduction to the relationship between politics and economics at the theoretical and policy levels. (1) (Cross-listed with POLI 333)

Lecture: 3 hrs./wk.

*Prerequisite: I.R./POLI 231.*

### **I.R. 351 Environmental Public Policy**

An examination of environmental policy-making and environmental issues at local, national, and international levels. (1) (Cross-listed with POLI 351)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or ENST 105 or permission.*

### **I.R. 352 Human Rights Policy**

An introduction to the principles of human rights from a comparative policy-making perspective. (1) (Cross-listed with POLI 352)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **I.R. 353 U.S. Foreign Policy**

An introduction to the foreign policy process of the United States. Selected issues in United States foreign policy in The Cold War and post-Cold War eras will also be analyzed. (1) (Cross-listed with POLI 353)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or permission.*

### **I.R. 401 Senior Seminar in International Relations**

A multidisciplinary seminar on selected topics in international relations for senior students. (1)

Seminar: 3 hrs./wk.

*Prerequisite: I.R./POLI 247, CJUS/POLI/I.R.209, permission of the instructor and senior major status.*

### **I.R. 405, 406, 407 Independent Study**

Supervised review of literature and a research project in the area of international relations. (1/2, 1, 1/2)

*Prerequisite: A minimum 3.0 major GPA and both Department and instructor permission. I.R. 405 is a prerequisite for I.R. 407.*

### **I.R. 416 Internship**

A supervised placement providing practical experience in an agency relating to international relations. (1)

*Prerequisite: A minimum 2.5 major GPA and both instructor permission and major coordinator.*

### **I.R. 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. The 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## ITALIAN

*Lecturer Giuliana Chapman*

A major in Italian is not offered at Roanoke College.

### **ITAL 101, 102 Elementary Italian I, II**

A basic course in grammar and syntax, with oral and written work. Reading in preparation for literary and cultural appreciation. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

### **ITAL 201, 202 Intermediate Italian I & II**

These courses build on the foundation established in the Elementary Italian sequence. Basic grammar and vocabulary are reviewed and more complex grammatical structures and advanced vocabulary are introduced. Emphasis is placed on developing good conversational ability, reading comprehension and composition skills. In addition, elements of Italian culture are woven into the curriculum to promote a broader cultural appreciation of Italy. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: ITAL 102 or the equivalent.*

### **ITAL 306 Advanced Studies in Italian**

Guided independent learning to continue the acquisition of Italian and the study of culture beyond the 202 level. (1)

Lecture: 3 hrs./wk.; Laboratory/Studio: 2.5 hrs./wk.

*Prerequisite: ITAL 202.*

## JAPANESE

A major in Japanese is not offered at Roanoke College.

### **JAPN 101, 102 Elementary Japanese I, II**

A study of the fundamentals of Japanese with emphasis on pronunciation and aural comprehension. Includes oral and written work, cultural material, and selected readings. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

### **JAPN 201 Intermediate Japanese I**

A review of the essentials of Japanese grammar with the introduction of advanced structures, continued development of the four essential skills, and further acquisition of vocabulary. An emphasis will be placed on cultural issues and on conversational skills to handle situations of everyday life and to increase the range of personal expression, inclusion of cultural materials. (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: JAPN 102.*

### **JAPN 202 Intermediate Japanese II**

A review of the essentials of Japanese grammar with the introduction of advanced structures, continued development of the four essential skills, and further acquisition of vocabulary. An emphasis will be placed on conversational skills to handle situations of everyday life and to increase the range of personal expression, inclusion of cultural materials. The course will also include materials to foster a more sophisticated understanding of the philosophical and cultural foundation of the country. (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: JAPN 201.*

### **JAPN 306 Advanced Studies in Japanese**

Guided independent learning to continue the acquisition of Japanese and the study of culture beyond the 202 level. (1)

Lecture: 3 hrs./wk.; Laboratory/Studio: 2.5 hrs./wk.

*Prerequisite: JAPN 202.*

## **LANGUAGE**

*Professors Dolores Flores-Silva, Lynn Talbot; Associate Professor José F. Bañuelos-Montes (Chair); Assistant Professors Alison Clifton, Ian Michalski; Lecturers Giuliana Chapman, Teresa Hancock-Parmer, Sarah Hord, Iris Myers, Christine Stanley*

A major in language is not offered at Roanoke College. The following courses may not be counted toward the French or Spanish majors.

### **LANG 105, 106 Tutorial**

A guided study of a foreign language or level of a foreign language not normally offered at the College. (1, 1)

Lecture: 2 hrs./wk.; Laboratory: 4 hrs./wk.

*Prerequisite: Permission.*

### **LANG 221 English as a Second Language I**

Basic English proficiency for intermediate English as a Second Language students. Emphasis is on the appropriate use of academic vocabulary, grammatical structures, verbal expression, and cultural inferences. (1)

Lecture: 3 hrs./wk.

*Prerequisites: This course is designed for students with TOEFL scores from 68iBT to 79iBT. Placement to be confirmed by a Roanoke College proficiency test.*

### **LANG 222 Academic Writing**

Improving English proficiency for advanced international students. Emphasis is on the appropriate use of academic vocabulary, complex grammatical structures, organizational patterns, and rhetorical phrases and idioms in academic texts and student writing. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **LANG 338 Second Language Learning: Deciphering Myths from Facts**

How do people learn a second language? Is there an age limit for second language learning? Can you really learn a language in the classroom as opposed to the “real world”? This course is designed as an introduction to both the theory and practice of second language acquisition (SLA). The course will explore questions like those presented above to decipher the myths from the facts of language acquisition and students will apply their knowledge by creating an original research design within the field of SLA. (1)

Lecture: 3 hrs./wk.

### **LANG 341 Methods of Teaching Foreign Languages**

An evaluative study of language teaching methods. Development of teaching aids and a teacher’s resource book. Assignments will be made according to the student’s major language. PreK-12 levels of instruction will be presented. (1) (Cross-listed as FREN 341/SPAN 341)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

### **LANG 405, 406, 407 Independent Study**

Guided reading and research of a particular facet of a foreign language, literature, and culture. (1/2, 1, 1/2)

*Prerequisite: Permission.*

### **LANG 416 Internship**

Field placement providing the student with practical experience in work areas in which a foreign language is applied. These areas may include embassies, government service, international business, education, industry, and the communications media. (May be taken for major or minor credit.) (1) (Cross-listed as FREN 416/SPAN 416)

## **LATIN**

*Associate Professor Jason Hawke*

Students interested in studying the ancient world should consult the requirements for the concentration in Classics and the Ancient Mediterranean World. A major in Latin is not offered at Roanoke College.

### **LATN 101, 102 Elementary Latin I, II**

A study of the fundamentals of classical Latin, with emphasis on grammar, vocabulary, and translation. Students will be introduced to the cultural life of ancient Rome. (1, 1)

Lecture: 3 hrs./wk.

*Prerequisite: LATN 101, or its equivalent, is a prerequisite for LATN 102.*

### **LATN 201: Intermediate Latin I**

A continuing study of Latin, with emphasis on more complex grammatical structures, vocabulary, and translation. Students will read selected excerpts in Latin as part of an ongoing introduction to the cultural life of ancient Rome. (1)

Lecture: 3 hrs./wk.

*Prerequisite: LATN 102.*

### **LATN 202 Intermediate Latin II**

A continuing study of Latin, with emphasis on more complex grammatical structures, vocabulary, and translation. Students will read selected excerpts in Latin as part of an ongoing introduction to the cultural life of ancient Rome. (1)

Lecture: 3 hrs./wk.

*Prerequisite: LATN 201.*

## **LATIN AMERICAN AND CARIBBEAN STUDIES CONCENTRATION**

*Professors Dolores Flores-Silva, Daniel Sarabia, Ivonne Wallace Fuentes, Co-coordinator; Associate Professor José Bañuelos-Montes (Chair), Co-coordinator*

Students in any major interested in developing a specialization in Latin America or the Caribbean may earn a concentration in Latin American and Caribbean Studies by successfully attaining the intermediate level of either Spanish (through SPAN 202) or French (through FREN 202). ***They must also complete six units as follows: two of five core courses, three electives, and a capstone Independent Study approved by the program coordinators.*** No more than two courses from the student's major may apply to the concentration and no more than three courses can be taken in the same discipline.

### **Core Courses**

FREN 315	Francophone Societies
HIST 272	Latin America <b>or</b> HIST 273 Latin American Revolutions
I.R./POLI 225	Comparative Political Systems: Latin America
SPAN 312	Latin America and its Native and Hybrid Cultures <b>or</b>
SPAN 315	Contemporary Issues: Spanish America
SPAN 323	Literary Perspectives: Latin America

### **Electives**

*BUAD 333	Global Marketing
*ECON 247	International Trade and Finance
ENGL 2200	Special Studies in Language and Literature
ENGL 301	Special Studies in Language and Literature
ENGL 310	Literatures of the African Diaspora
*ENGL 312	Studies in the Cross-Cultural Imagination
FREN 380	Special Studies in French Language, Literature, and Culture
HIST 290	Special Studies
HIST 375	Issues in Latin American and Caribbean History
HIST 490	Research Seminar (as appropriate)
*I.R./POLI 352	Human Rights Policy

*RELG 130	Living Religions of the World
*SOCI 224	Race and Ethnicity
SPAN 323	Literary Perspectives: Latin America
SPAN 330	Spanish for Business
SPAN 340	Area Studies in Latin America
SPAN 380	Special Topics in Hispanic Life and Culture

Special Topics courses, Internships, INQ and Intensive Learning courses, and Honors courses where applicable and with permission of the program coordinators.

**\*No more than one of the electives can be general comparative world in focus (see asterisks).**

## LEGAL STUDIES

*Professor Todd Peppers, Coordinator*

The concentration allows students to draw upon a variety of different perspectives regarding the nature of law, the role of law in society, and the law as a tool of social change. The concentration is designed to give students flexibility in selecting the classes that are most relevant to their future career plans.

### Required (4):

CJUS/POLI 214	The Judicial Process
CJUS 213	Criminal Law <b>or</b> BUAD 227 Legal and Labor Foundations of Business or POLI 312 Civil Liberties
POLI 250	Politics and Power in American Policymaking
POLI 311	American Constitutional Law <b>or</b> POLI 312 Civil Liberties

### Electives (3):

CJUS 211	Criminal Justice
CJUS/POLI 216	Criminal Procedure
CJUS/SOCI 240	Inequality in Criminal Justice
CJUS 325	Comparative Law Enforcement
PHIL 101	Introduction to Logic
POLI 214 or 311 <b>or</b> 312 <b>or</b> BUAD 227	(if not counted as a requirement above)
I.R./POLI 352	Human Rights Policy
PSYC 251	Social Psychology
SOCI 238	Juvenile Delinquency
SOCI/CJUS 240	Inequality in Criminal Justice
SOCI 334	Criminology
CJUS/POLI/SOCI 261 - (Special Topics when appropriate and approved by the program coordinator); POLI 395, CJUS/POLI 401, 405, 406, 407, 416, or 495 (topics when appropriate and approved by the program coordinator); Any IL 277 or Honors 301 course whose topic is appropriate and approved by the program coordinator.	

## LINGUISTICS

*Associate Professor José Bañuelos-Montes and Assistant Professor Alison Clifton, Co-Coordinators*

A major in linguistics is not offered at Roanoke College. Linguistics 320 may count toward a modern language major or minor.

### LING 320 Basic Linguistics

The scientific study and description of language according to the principles of modern linguistics. (1) (Cross-listed as ANTH 320/ENGL 320)

Lecture: 3 hrs./wk.

## LITERARY STUDIES

*Professors Melanie Almeder, Wendy Larson-Harris (Chair); Associate Professors Srikanth Mallavarapu, Kenneth McGraw, Dana-Linn Whiteside; Assistant Professors Mary Hill, Teresa Milbrodt*

The Literary Studies major provides students with the opportunity to indulge a love of reading and writing and to attain a broad appreciation of how the past lives in present cultural productions. Students master skills in critical reading and writing, analysis, synthesis and problem-solving that can lead to graduate work in literature or careers in journalism, editing and publishing, law, public relations and advertising.

The English and Communication Studies Department at Roanoke College houses three majors: Communication Studies, Creative Writing and Literary Studies. See separate listings under Communication Studies, Creative Writing, and Literary Studies for the requirements for the majors and minors in these fields.

The Literary Studies major requires 10 units of work as detailed below:

- I. Required Courses (two units)
  - ENGL 290 Research Methods and Critical Perspective
  - ENGL 411 Seminar
- II. Additional requirements (at least eight units)
  - A. At least 4 units at the 200-level two of which must come from Foundations courses and two of which must come from Connections courses. 1 unit from CRWR 215, CRWR 216, ENGL 220, and ENGL 256 can be substituted with department chair approval.
  - B. At least four 300-level or above English electives. The following may substitute for the 300-level or above electives, as appropriate, and with department chair approval: ENGL 405, 406, 407, 416, 495, 496, or 497.

*NOTE: Literary Studies majors are encouraged to make ENGL 290 one of their first courses.*

### **Minor in Literary Studies**

A minor in Literary Studies requires six units. 3 units at the 200-level and 3 units at the 300-level. 1 unit of CRWR 215 or CRWR 216 may count towards the minor.

## **MATERIALS & NANOSCIENCE CONCENTRATION**

*Assistant Professor Steven Hughes, Coordinator*

The Materials & Nanoscience Concentration offers students an interdisciplinary program that brings to the forefront important discoveries and findings at the atomic and molecular scales. Utilizing cutting edge instrumentation and techniques in combination with direct faculty collaboration, students in this concentration are provided a distinctive opportunity to explore one of the current frontiers of basic physical science. Although faculty participation is shared between the Chemistry department and the Physics program, students from any major may earn a Materials & Nanoscience Concentration. The concentration complements any student's experience in the sciences, but particularly those interested in physics, chemistry or applied science and technology. This concentration will benefit those students who intend to pursue graduate studies and/or industries in the field of nanotechnology.

Seven units are required for the concentration, and at least three units may not be used to satisfy the concentrator's major requirements. The following courses are required for the Materials & Nanoscience Concentration:

#### **Core Courses:**

PHYS 202	Electricity & Magnetism
PHYS 203	Atomic, Molecular, & Optical Physics
CHEM 111 or 117	General Chemistry I
CHEM 112 or 118	General Chemistry II
CHEM 260	Descriptive Inorganic Chemistry

One 400 level unit of research in Chemistry or Physics with a materials and/or nanoscience focus as approved by the concentration coordinator.

#### **And one of:**



PHYS 250	Introduction of Nanomaterials
ENGS 301	Statics and Material Testing
PHYS 450	Physics of Materials

(**NOTE:** PHYS 201 is a prerequisite for PHYS 202, and MATH 121 and 122 (or equivalents) are prerequisites for PHYS 201 and 202, respectively.)

## MATHEMATICS

*Professors Karin Saoub (Chair), Adam Childers, Roland Minton, David Taylor; Associate Professors Christopher Lee, Hannah Robbins, Margaret Rahmoeller; Lecturers Roger Reakes, Claire Staniunas, Michael Weselcouch*

The Bachelor of Science degree with a major in mathematics requires the completion of 13 units of mathematics and related disciplines as outlined below.

### Required Courses (5)

MATH 122	Calculus II
MATH 131	Discrete Mathematics
MATH 201	Linear Algebra
MATH 491	Math Seminar
CPSC 120	Programming

### Statistics Course (Choose 1)

STAT 210	Statistical Methods I
STAT 220	Statistical Methods II

### Transitions Course (Choose 1)

MATH 268	Combinatorics and Graph Theory
MATH 278	Foundations of Geometry
MATH 288	Special Topics in Mathematics

### Applied Courses (Choose 2)

MATH 311	Operations Research
MATH 321	Vector Calculus
MATH 331	Differential Equations
One of these units may be STAT 303 or STAT 304	

### Theoretical Courses (Choose 2)

MATH 361	Abstract Algebra
MATH 371	Topology
MATH 381	Real Analysis

### Elective Courses (Choose 2)

MATH 205	Research Experience (when combined with another 0.5 unit in MATH)
MATH 271	Mathematical Problem Solving (when combined with another 0.5 unit in MATH)
MATH 332	Applied Differential Equations
MATH 342	Numerical Analysis
MATH 352	Complex Analysis
MATH 388	Special Topics in Mathematics
MATH 406	Independent Study (or MATH 405 and MATH 407)
MATH 416	Internship
MATH 496	Honors Project (or MATH 495 and MATH 497)
ACSI 301	Theory of Interest

Any Transitions, Applied, or Theoretical course in addition to the above requirements

Any 300-level STAT course not used to satisfy the Applied Course requirement

One of these units may be CPSC 450, PHYS 330, PHYS 350, or PHYS 390

*Note that MATH 121, or equivalent is a prerequisite for MATH 122.*

Students intending to pursue graduate study in mathematics should take MATH 361 and MATH 381 as their theoretical courses.

### **Minor in Mathematics**

A minor in mathematics will require six units, including MATH 121, 122, 131, 201 plus two additional units in mathematics or statistics at the 200-level or above.

### **Math Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **MATH 111 Mathematical Models for the Management Sciences**

Theory and application of several mathematical models used in business and social sciences. Topics include matrices, linear programming, functions, limits, and derivatives. (1)

Lecture: 3 hrs./wk.

(May not be taken if credit has been received for Mathematics 112 or higher.)

### **MATH 115 Quantitative Biology**

This course provides a continuation of the statistics knowledge gained in INQ/HNRS 240, focused for students intending to pursue a degree in the biological sciences, along with an introduction to calculus and mathematical modeling. Students will learn how to apply appropriate models and statistical tests to a variety of situations and will learn how to research other modes and tests out there to apply to their own research in the future. A focus of the course is using real data from past work done by the biology faculty and students and on reading and understanding the models and statistics found in biological journals. (1)

Lecture: 3 hrs./wk.

*Prerequisite: INQ/HNRS 240.*

### **MATH 121 Calculus I**

The analysis of limits, derivatives, integrals and their applications for functions of one variable. (1)

Lecture: 3 hrs./wk.; Recitation 1.5 hrs./wk.

### **MATH 122 Calculus II**

The analysis of integrals, sequences and series, and their applications for functions of one or more variables. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 121.*

### **MATH 131 Discrete Mathematics**

Set theory, number systems, formal logic, functions and relations, and graph theory. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 121 or CPSC 120.*

### **MATH 201 Linear Algebra**

Linear equations, matrices, vector spaces, linear mappings, determinants, quadratic forms, geometric applications. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 122.*

### **MATH 205 Research Experience**

A research project in mathematics; may be repeated for credit. (1/2)

*Prerequisite: Permission.*

### **MATH 268 Combinatorics and Graph Theory**

An introduction to graph theory and combinatorics. Topics may include graph colorings, trees, matching problems, binomial and multinomial coefficients, and generating functions. An emphasis will be placed on mathematical exposition and formal arguments as the theory is developed. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 131.*

**MATH 278 Foundations of Geometry**

A review of Euclidean geometry and an introduction to non-Euclidean geometries, with a special focus on the theoretical framework of various geometric systems. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 131.*

**MATH 288 Special Topics in Mathematics**

Special topics in Mathematics, focusing on building the mathematical and logical framework necessary for upper-level mathematics courses. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 131.*

**MATH 311 Operations Research**

This course provides an introduction to Operations Research: a mathematical approach to decision making based on optimization. Topics include the simplex method, sensitivity analysis, duality, transportation problems, and network models. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 201.*

**MATH 321 Vector Calculus**

The analysis of vectors and their operations, triple integrals, line integrals, vector fields, and surface integrals. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 122.*

**MATH 331 Differential Equations**

Ordinary differential equations with applications. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 201 or permission.*

**MATH 332 Applied Differential Equations**

Series solutions of differential equations. Bessel functions, Legendre polynomials, Fourier series, partial differential equations, boundary value problems. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 331.*

**MATH 342 Numerical Analysis**

Numerical integration and differentiation, numerical methods in linear algebra, interpolation; error analysis, stability and conditioning. (1) (Cross-listed as CPSC 342)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 201, MATH 122, CPSC 120.*

**MATH 352 Complex Analysis**

The structure of the complex number system; analytic functions, conformal mappings and applications; the theory of complex integration. (1)

Lecture: 3 hrs./wk.

*Prerequisite: MATH 122.*

**MATH 361 Abstract Algebra**

Axiomatic study of selected algebraic structures, including groups and rings. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 131 and 201; students are strongly encouraged to have completed their Transitions Course requirement before enrolling for this course.*

**MATH 371 Topology**

Topological spaces, functions, mappings, connectedness, compactness, and metric spaces. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 131 and 201; students are strongly encouraged to have completed their Transitions Course requirement before enrolling for this course.*

### **MATH 381 Real Analysis**

The structure of the real number system; selected topics from metric spaces, continuity, differentiation, integration, sequences and series. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 131 and 122; students are strongly encouraged to have completed their Transitions Course requirement before enrolling for this course.*

### **MATH 388 Topics in Mathematics**

Special topics in Mathematics. (1)

*Prerequisites: MATH 131 and 201 or permission.*

### **MATH 405, 406, 407 Independent Study and Research**

Selected topics in mathematics carried out under direction of a member of the department staff. (Enrollment with the approval of the department.) (1/2, 1, 1/2)

### **MATH 416 Internship**

Field placement providing practical experience and training in areas in which mathematics is applied. These areas may include industry, government agencies, educational institutions, insurance companies, and a variety of private enterprises. (Permission of the department is required.) (1)

### **MATH 491 Math Seminar**

Advanced topics in pure and applied mathematics, presentation of math projects, topics in the history of math. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Two of MATH 361, MATH 371 and MATH 381.*

### **MATH 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **MEDICINAL CHEMISTRY CONCENTRATION**

*Professor Catherine Sarisky, Coordinator*

The Medicinal Chemistry concentration provides additional coursework in chemistry for students interested in a deeper understanding of chemistry as it relates to pharmaceutical development, production, and the practice of medicine.

Students may declare this concentration in combination with any major. As with all concentrations, students will need three units toward the concentration that are not counted towards the major.

Students may not combine the chemistry minor and this concentration.

Required courses:

- |  |                            |
|--|----------------------------|
| <input type="checkbox"/> CHEM 111 or 117 (or competency) | General Chemistry I        |
| <input type="checkbox"/> CHEM 112 or 118                 | General Chemistry II       |
| <input type="checkbox"/> CHEM 221                        | Organic Chemistry I        |
| <input type="checkbox"/> CHEM 222                        | Organic Chemistry II       |
| <input type="checkbox"/> CHEM 340                        | Pharmaceutical Chemistry   |
| <input type="checkbox"/> CHEM 420                        | Advanced Organic Chemistry |

One required elective, from the list below:

- |   |  |
|---|--|
| <input type="checkbox"/> CHEM 341   | Biochemistry I   |
| <input type="checkbox"/> CHEM 342   | Biochemistry II  |
| <input type="checkbox"/> CHEM 350   | Instrumental Analysis (255 is a required pre-req)              |
| <input type="checkbox"/> Industrial or pharmaceutical company internship (CHEM 416) with the approval of the concentration coordinator. |  |
| <input type="checkbox"/> CHEM 399 or 499  | Special Topics, with approval of the concentration coordinator |

Students are encouraged to consult frequently with the concentration coordinator or their assigned advisor, as some courses are offered on an alternate year basis.

## **MEDIEVAL STUDIES CONCENTRATION**

*Professors Michael Hakkenberg, Hans Zorn, Coordinators*

The Concentration in Medieval Studies requires completing a total of 6 units with an average cumulative GPA of 2.0 or higher: these courses must include HIST 120: The Medieval World, plus 5 additional units. Two units of a language appropriate to an area in medieval studies (including, but not limited to Latin or Greek) may count among the 5 additional units. Students may also count up to two survey courses that include the medieval period but do not focus specifically on the middle ages. The total courses taken to fulfill the concentration must include at least one course from 3 different academic disciplines. In accordance with the general rules for concentrations, the six courses taken for the concentration must include at least three units which are not used to satisfy the student's major requirements.

In addition to the courses listed below, INQ and HNRS 270, IL courses, special topics courses, and independent studies may be applied toward the concentration when these courses address a topic in the Middle Ages. Students are advised to check with the coordinators of the concentration to determine which courses are appropriate for the concentration.

### ***Required:***

HIST 120            The Medieval World

***Five additional courses from among the following. The total courses taken for the concentration must include at least one course from 3 different disciplines:***

ARTH 236            Medieval Art  
 ENGL 330            Chaucer  
 ENGL 334            Studies in Medieval Literature  
 FREN 421            The Medieval World  
 HIST 223            Medieval England  
 HIST 320            Issues in the Middle Ages  
 HIST 350            Issues in Africa (as appropriate)  
 HIST 380            Issues in East Asian History (as appropriate)  
 INQ 270            Human Heritage I (as appropriate)  
 INQ 177, 277, 377            (as appropriate)  
 PHIL 253            Medieval Philosophy  
 RELG 282            Augustine and His Legacy  
 Special Topics courses as appropriate  
 Independent studies as appropriate  
 Two units of Latin, Greek, or any other language appropriate to an area in medieval studies

***Any two of the following survey courses may count towards the total number of courses required for the concentration:***

ARTH 150            Art, Culture and Society I: Ancient and Medieval  
 FREN 311            Building a Nation: French Civilization and Culture I  
 HIST 244            Ireland  
 HIST 281            Early East Asia  
 HIST 285            South Asia  
 MUSC 261            Music History I: Classical Antiquity through 1700  
 PHIL/RELG 243       Religions and Philosophies of India  
 RELG 245            Japanese Religions  
 SPAN 311            Spanish Civilization and its Plural Nationalities  
 SPAN 320            Literary Perspectives: Spain  
 Special Topics courses as appropriate

Independent studies as appropriate

## **MIDDLE EAST STUDIES CONCENTRATION**

*Associate Professors Jonathan Snow, Coordinator, Melanie Trexler, Leslie Warden, Robert Willingham*

Students from any major interested in developing a specialization in Middle East studies may earn a concentration by successfully completing (with a cumulative grade point average of at least 2.0), either in an approved program in the Middle East or on campus, at least six academic units from the list below. Up to three credits may be transfers from an approved international study abroad program (either as a substitute for required courses or as electives, depending on the course(s), languages taken on or off campus (Arabic, Hebrew, Farsi, Turkish, Kurdish, or others approved by the coordinator) may count for up to three credits and IL May Term course to the region may count as one credit (either as a substitute for a required course or as a methodology related content credit, depending on the subject).

Independent studies, internships, special topics courses, and honors projects may be counted in substitution for a required course or as an elective, with the permission and approval of the coordinator.

### ***Required Courses***

*Students must take at least four of the following:*

ARTH 220	Ancient Egyptian Art & Archaeology
ARTH 222	The Archaeology of Death in the Ancient Near East
ARTH 224	The Encyclopedic Museum and Archaeological Ethics
HIST 284	Modern Middle East
POLI/I.R. 223	Comparative Politics: Middle East
POLI/I.R. 234	The Arab-Israeli Conflict
RELG 103	The Jewish Tradition
RELG 204	Islam

Students may take up to three units of language relevant to the region as required courses with permission of the coordinator.

### ***Methodology and Related Content Elective Courses***

Students may use any combination of those below as their additional courses, as necessary, to meet the six credit requirement, but note that only one of these courses at the 100 level may be used to complete the concentration.

ANTH 101	Introduction to Cultural Anthropology (Global)
ARTH 150	Art, Culture, & Society (Global)
ARTH 218	Introduction to Archeology
HIST 110	Ancient World
HIST 120	Medieval World
HIST 130	Early Modern World History
HIST 140	The Modern World
POLI 111	Issues in Global Politics
POLI/I.R. 231	International Politics
POLI/I.R. 232	International Organizations
POLI/I.R. 233	International Law
POLI/I.R. 352	Human Rights Policy
RELG 130	Living Religions of the World (Global)
RELG 201	Israelite Patriarchs, Prophets, Princes and Priests
RELG 301	Methods and Theories in the Study of Religion

*In addition, students may substitute units in related fields (History, Political Science, Art History, Business, etc.) as appropriate with permission of the coordinator.*

## **MODERN LANGUAGES**

*Professors Dolores Flores-Silva, Lynn Talbot; Associate Professors José F. Bañuelos-Montes (Chair); Assistant Professors Alison Clifton, Ian Michalski; Lecturers Giuliana Chapman, Teresa Hancock-Parmer, Iris Myers, Christine Stanley*

The Department of Modern Languages offers majors in French and Spanish; minors in French, German, and Spanish; and instruction in Chinese, Italian, Japanese, and Russian. Greek and Latin course offerings, not taught by Modern Languages, may be found in their respective catalog sections.

The majors in French and Spanish consist of the completion of at least 11 units above the 202 level in one language. Specific requirements for each major are provided in the course listings for French and Spanish respectively.

- In order to promote fluency and cultural immersion, majors are required to complete an institutionally-approved course of study abroad. Appropriate periods of study include an INQ Intensive Learning or May Term travel course, or a summer, semester, or year abroad via ISEP or a university-sponsored program.
- Majors are encouraged to complete an internship--abroad or domestically--related to their language of study (FREN or SPAN 416).
- Majors are required to enroll in at least one one-unit course in the major language during their senior year.
- To broaden their linguistic and cultural competence, majors are encouraged to study an additional modern language.

Minors consist of six units. Specific requirements for each minor are provided in the course listings for French, German, and Spanish respectively.

Modern language majors and minors should also note the courses listed under "Language" and "Linguistics." Language 341 (cross-listed as FREN 341 and SPAN 341) is a methods course primarily intended for those students who plan to teach a foreign language. Linguistics 320 (cross-listed as ENG 320 and ANTH 320) presents the principles of how language functions. It may count toward the French and Spanish majors and the German minor.

All students are required to complete the study of a foreign language through the first semester of the intermediate level (201) as part of the college's general education curriculum. Students may be exempted from all or part of the requirement by demonstrating competency in a foreign language as described in "Competency Standards" in this catalog.

## **MUSIC STUDIES**

*Professor Gordon Marsh; Associate Professor Marc LaChance*

A concentration in music students requires the completion of at least six units, including, four units of core courses and two units of Applied Music.

### **Concentration in Music Studies**

#### ***Core Courses (four units)***

MUSC 150	Fundamentals of Music Theory★
MUSC 240	Music in Culture
MUSC 275	Western Classical Music
MUSC 375	Popular Music

★Competency in MUSC 150 may be granted with department approval; if granted, an additional unit of coursework will be required. This can be additional applied music coursework (MUSA or MUSC), MUSC 199 or an appropriate INQ or non-MUSC course with the approval of the concentration coordinator.

#### ***Applied Music (two units)***

Satisfactory completion of at least eight one-quarter units from either or both of the following areas:

***Applied Music Instruction***

Applied music instruction includes private lessons in voice (MUSA 101), keyboard (MUSA 102), instrumental (MUSA 103), composition (MUSA 104) and conducting (MUSC 105). Each lesson is one hour per week.

***Applied Music Ensemble***

Can be satisfied by the following Roanoke College ensembles: Concert Choir, Oriana Singers, Wind Ensemble, and Jazz Ensemble.

**MUSC 107 Studio Ensemble**

Varying styles of an instrument's repertoire taught on intermediate and advanced levels in a group context. In addition to issues in ensemble playing unique to the instrument, the following is covered: effective execution, physical position, tone production and intonation, extended techniques. (May be repeated for credit. This course does not count for credit toward the music studies concentration) (1/4)

Lecture-Laboratory: 1 hr./wk.

**MUSC 108 Mixed Ensemble**

Designed to allow collaboration between diverse instruments and/or voices (traditional or non-traditional music). Instruction may cover, as appropriate to topic, various aspects of ensemble performance: e.g., effective technique and execution, ensemble and rehearsal skills, sight reading, improvisation, extended techniques, etc. Performance required. (May be repeated for credit. This course does not count for credit toward the music studies concentration.) (1/4)

Lecture-Laboratory: 1 hr./wk.

*Prerequisite: Permission of the instructor.*

**MUSC 109 Oriana Singers**

This choir for women explores the Western sacred and secular choral tradition but also those of other cultures. Special attention is given to the development of vocal and music skills. Women can expect travel and collaboration with men's choirs when possible. (1/4)

Lecture: 3 hrs./wk.

*Prerequisite: Entrance by audition only.*

**MUSC 111 Concert Choir**

Training in a cappella and accompanied music from all style periods. (Students must participate in all performances unless excused by the director prior to the performance. May be repeated for credit.) (1/4)

Lecture-Laboratory: 4 hrs./wk.

*Prerequisite: Entrance by audition only.*

**MUSC 112 Wind Ensemble**

Experience in band literature. (Students must participate in all performances unless excused by the instructor. May be repeated for credit.) (1/4)

Rehearsals: 3 hrs./wk.

*Prerequisite: Permission of instructor.*

**MUSC 113 Jazz Ensemble**

Experience in jazz instrumental and ensemble. (Students must participate in all performances unless excused by the instructor. May be repeated for credit.) (1/4)

Rehearsals: 3 hrs./wk.

*Prerequisite: Permission of instructor.*

**MUSC 150 Fundamentals of Music Theory**

Pitch and rhythm fundamentals: reading music notation, sight singing, reading chord charts. Focus on intervals, key signatures, scales, meter, and chords. (1)

Lecture: 3 hrs./wk.

**MUSC 199 Special Topics**



Ensemble/workshop experience in areas not normally offered, with the focus to be determined by the music faculty. May be repeated for credit. (1/4).

Lecture/Laboratory: hours vary.

*Prerequisite: Permission of instructor.*

### **MUSC 240 Music in Culture**

An exploration of the role of music in cultures around the world and throughout history, introducing students to the discipline ethnomusicology, and covers various traditional, classical, and popular practices from a range of music-cultures both domestic and abroad. The course includes a fieldwork component. (1)

Lecture: 3 hrs./wk.

### **MUSC 275 Western Classical Music**

An introduction to the history and development of Western classical music with an emphasis on genres, styles, and forms dating from around 1600 to the present. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

### **MUSC 375 Popular Music**

Introduction to the forms, styles and genres of popular music. Students develop projects involving the interdisciplinary study of audience (e.g. taste, preference, authenticity and identity) and industry (e.g. Publishing, recording, marketing, and the media) music-cultural themes include the intersection of race, class, gender, and sexuality.

Lecture: 3 hrs. wk.

### **MUSC 405, 406, 407 Independent Study and Research**

A program of advanced intensive study and experience in music under the guidance of the area staff. The student will submit a written proposal for specific study before the beginning of Examination Week of the term prior to the term in which the work is to be done. Admission by approval of the Music Area faculty on the recommendation of the directing professor. Students are alerted to consult the departmental "Guidelines for Independent Studies/Internships" prior to initiating their planning. (1/2, 1, 1/2)

Lecture-Laboratory: Hours Vary.

*Prerequisite: Permission.*

### **MUSC 416 Internship**

Practical experience working in or with an artistic organization as participant-observer, leading to the preparation of a report which describes and evaluates that organization's activities. The student will submit a written proposal for specific study before the beginning of Examination Week of the term prior to the term in which the work is to be done. Admission with approval of the faculty professor. Students are alerted to consult the departmental "Guidelines for Independent Studies/ Internships" prior to initiating their planning. (1)

Lecture-Laboratory: 120 hour minimum

*Prerequisite: Permission.*

## **NEUROSCIENCE**

*Professor David Nichols (Chair), Coordinator*

A concentration in neuroscience will offer students an opportunity to learn about theory and research on the brain and nervous system from a number of perspectives. A tremendous body of knowledge in psychology, intersecting with biology, chemistry, movement science, artificial intelligence, and medical ethics, has been growing rapidly in recent years with the advent of newer techniques in the study of neuroscience. These developments have illuminated multiple areas within the disciplines and filled in knowledge gaps in areas such as mental illness, brain damage, child development, and drug interactions. The Psychology Department houses the concentration, but it is designed to be compatible with majors because neuroscience is an interdisciplinary field. Students will come to understand how developments in chemistry, biology, psychology and related fields alter knowledge and research techniques in the other fields. Students will also learn from faculty in a range of departments and be exposed to a range of research and thus a range of viewpoints. Students from any major may graduate with a concentration in

Neuroscience by successfully completing at least six units and earning a cumulative grade point average of at least 2.0. The courses required for the concentration are listed below:

**Required Courses (4):**

NEUR /PSYC 330	Principles of Neuroscience
NEUR/PSYC 430	Research Seminar: Neuroscience <b>OR</b> NEUR 405, 406, or 407Independent Study in Neuroscience

**An introductory BIOL course:**

BIOL 106	Human Biology (HHP majors only)
BIOL 190	Exploring Unity in Biology

**An introductory CHEM or PHYS course:**

CHEM 111	General Chemistry: Foundations I or CHEM 117 General Chemistry: Advanced Principles and Applications I
PHYS 102	Introductory Physics for Life Sciences
PHYS 103	Fundamental Physics I
PHYS 201	Newtonian Mechanics

**Students must also take two electives from the list below:**

**Electives:**

NEUR/PSYC 335	Neuropsychology
NEUR 339	Topics in Neuroscience
PSYC 332	Drugs and Behavior
PSYC 336	Sensation and Perception
BIOL 210	Cell Biology
BIOL 260	Human Anatomy and Physiology II
BIOL 305	Principles of Physiology
BIOL 420	Developmental Biology
CHEM 340	Pharmaceutical Chemistry
CHEM 341	Biochemistry I
HEXS 317	Neuromechanics
MATH 332	Applied Differential Equations
PHYS 410	Biophysics

**NEUR 330 Principles of Neuroscience**

This course will provide a detailed understanding of neurons and the functional role of different aspects of the human nervous system. A survey of topic areas relevant to psychology and neuroscience related disciplines and an introduction to techniques in neuroscience will also be included. (Cross-listed with PSYC 330). (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or BIOL 190 or permission.*

**NEUR 335 Neuropsychology**

Examines the field of neuropsychology through the examination of common disorders found in neuropsychology, assessment techniques, and the application of knowledge of the relevant concepts to the interpretation and solution of disorders of brain-behavior relationships. (Cross-listed with PSYC 335). (1)

Lecture: 3 hrs./wk.

*Prerequisite: NEUR/PSYC 330 or permission.*

**NEUR 339 Topics in Neuroscience**

A thorough examination of a particular topic within the field of neuroscience that is not covered in other regularly offered courses. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: NEUR/PSYC 330 or permission. May be repeated for credit.*

**NEUR 405, 406, 407 Independent Study**

Empirical research project that has a focus in neuroscience, with faculty supervision. (, ½, 1, ½)

*Prerequisite: Written proposal and application approved by the coordinator.*

### **NEUR 430 Research Seminar: Neuroscience**

An advanced, research-oriented seminar in human, invertebrate, or computational neuroscience. (Cross-listed with PSYC 430). (1)

Lecture: 3 hrs./wk.

*Prerequisite: NEUR/PSYC 330 or permission.*

## **PEACE AND JUSTICE STUDIES CONCENTRATION**

*Associate Professors Srikanth Mallavavarpu, Andreea Mihalache-O'Keef, Coordinators*

The Peace and Justice Studies Concentration offers an interdisciplinary program examining conditions for bringing about a just and peaceful world order. The field of Peace and Justice Studies relates scholarship to practice and challenges those who engage in it to develop new ways of thinking and acting in the world. The concentration complements and builds upon other academic areas to prepare a student for graduate studies or service following graduation and to deepen a student's liberal arts education. Students from any major may earn a Peace and Justice Studies Concentration.

Six units are required. Of these six units, two must be PEAC 201 and 301. For the other four units, students may choose from the list of electives below, and students should see one of the concentration coordinators for additional special topics courses, INQ courses, and independent studies that can be counted toward the concentration. Taking PEAC 201 as early as possible is recommended. Each academic year before fall and spring registration, a list of electives, including courses not listed below, will be advertised by email, posted on fliers, and available through the concentration coordinators.

### **I. Required Courses (2 units):**

PEAC 201	Introduction to Peace and Justice Studies
PEAC 301	Seminal Figures and Issues

### **II. Elective Courses** (Four units, of which a maximum of three may be in one division: humanities, social sciences, or sciences. If taking PEAC 406 or PEAC 416, remaining electives must be in two or more divisions.)

CJUS/POLI 214	Judicial Process
CJUS 326/SOCI 326	Comparative Corrections
COMM 360	Studies in Intercultural Communication
ECON 267	Labor Economics
ENST103	Introduction to Environment and Culture
ENST 105	Introduction to Environment and Society
ENST 240	Environmental Justice
HIST 246/RELG 246	The Holocaust
HIST 255	South Africa
HIST 262	U.S. Women's History
HIST 269	History of Sexuality in the U.S.
PEAC 406	Independent Study
PEAC 416	Peace and Justice Internship
PHIL 212	Topics in Environmental Philosophy
I.R./POLI 231	International Politics
I.R./POLI 232	International Organizations
I.R./POLI 234	The Arab-Israeli Conflict
I.R./POLI 333	Global Political Economy
I.R./POLI 351	Environmental Public Policy
I.R./POLI 352	Human Rights Policy
RELG/PHIL 141	Buddhism
RELG/PHIL 241	Religions and Philosophies of China
RELG/PHIL 243	Religions and Philosophies of India
RELG 220	Christian Ethics
SOCI 215	Social Movements

SOCI 224	Race and Ethnicity
SOCI/CJUS 240	Inequality in Criminal Justice
SOCI 335	Global Population Problems
SOCI 337	Environmental Sociology
SOCI 338	Women's Lives Around the World: Global Perspectives

### **PEAC 201 Introduction to Peace & Justice Studies**

An introduction to the interdisciplinary field of peace and justice studies, examining the major areas within the field. (1)

Lecture: 3 hrs./wk.

### **PEAC 301 Seminal Figures and Issues**

This course aims at deepening our understanding of peace and social justice through a focus on specific thinkers and activists and/or significant historical events and movements. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PEAC 201 or permission.*

### **PEAC 406 Independent Study**

Taught on an individual basis arranged by the student with the professor in the relevant academic discipline, in coordination with the director of the Peace and Justice Studies concentration. Requirements will be in line with other independent studies supervised in that academic discipline. (1)

*Prerequisite: PEAC 201.*

### **PEAC 416 Peace and Justice Internship**

Supervised by the director of the Peace and Justice Studies concentration. Requirements will be in line with other internship courses and will include the following: the student will fulfill 110 hours at the work site; gain a better understanding of workplace culture through at least 10 hours of meetings and/or equivalent with coordinator and/or fellow interns; track internship experience through a daily journal; prepare an internship report that adheres to standard writing practices and discusses the internship experience; begin a digital portfolio on the internship work; and attend an exit interview with the Internship Coordinator. (1).

*Prerequisite: PEAC 201.*

## **PHILOSOPHY**

*Professors Brent Adkins, Jennifer Berenson (Chair), Ned Wisnefske, Hans Zorn; Lecturer Marwood Larson-Harris*

The study of philosophy examines certain unavoidable questions for human existence: "What does it mean to be a human being?" "What is the best kind of life to live?" "What is the difference between right and wrong?" "Is life meaningful or meaningless?" "What is truth?" Being a good philosopher does not mean having ready-made answers to these questions but having the ability to ask and answer them self-consciously, self-critically, and with clarity and consistency. The skills essential for being a good philosopher are not unique to philosophy, and so are useful in every aspect of life. In particular, the philosophy program at Roanoke College teaches the core skills of analytic reading, thinking, and writing, which involve breaking down ideas, discovering their interrelation, and evaluating their worth in such a way that they may be clearly communicated to others.

***A major in Philosophy requires completion of 9 units:***

#### **One course in Logic:**

PHIL 101	Introduction to Logic
PHIL 201	Symbolic Logic

**Two History of Philosophy survey courses, including at least one of Philosophy 251 or 255:**

PHIL 241	Religions and Philosophies of China
PHIL 243	Religions and Philosophies of India
PHIL 251	Early Western Philosophy
PHIL 253	Medieval Philosophy
PHIL 255	Modern Western Philosophy

**One Senior Thesis:**

PHIL 410, 411, 412 (1/2, 1, ½)	Senior Thesis
PHIL 495, 496, 497 (1/2, 1, ½)	Honors Project

A minimum of five additional courses in Philosophy, at least two of which must be at the 300 level or above (excluding PHIL 415, 416). Only one course at the 100 level in addition to PHIL 101 may be counted toward the major.

Courses in other disciplines that address philosophical topics may be substituted for Philosophy courses with the approval of the department. One relevant HNRS/INQ course (270, 271, 300, or May Term) can be counted toward the major with the permission of the department.

Since the skills and subject matter of philosophy are foundational to many other academic subjects, students who major in philosophy are encouraged to enrich their education by pursuing minors, concentrations, or second majors in other disciplines. Students who plan to do graduate work in philosophy will find it helpful to take PHIL 201, 251, and 255, along with more than the required number of advanced (300 level) courses. They should also attain competence in French or German at the advanced intermediate (202) level. Students whose primary interest is classical philosophy should consider taking Greek.

**Minor in Philosophy**

A minor in philosophy requires completion of 6 units:

One course in Logic: PHIL 101 or 201

One History of Philosophy survey course: PHIL 241, 243, 251, 253, or 255

A minimum of four additional courses in philosophy, at least two of which must be at the 300-level or above (excluding PHIL 415, 416). Only one course at the 100-level, other than PHIL 101, may be counted toward the minor.

Courses in other disciplines that address philosophical topics may be substituted for Philosophy courses with the approval of the department. One relevant HNRS/INQ course (270, 271, 300, or May Term) can be counted toward the major with the permission of the department.

**PHIL 101 Introduction to Logic**

This course seeks to develop skills in formulating and evaluating arguments. Topics covered include the nature and types of arguments, patterns of fallacious reasoning, inductive logic, and systems of deductive logic. (1)

Lecture: 3 hrs./wk.

**PHIL 111 Contemporary Issues**

This introductory course in practical philosophy will examine issues of current relevance such as race, gender, sexual orientation, politics, economics, science, artificial intelligence, and morality. The course is designed to teach basic philosophical skills as they relate to real world problems. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

**PHIL 131 Philosophy and Film**

An introduction to the interaction between philosophy and film. Whether implicitly or explicitly every film makes claims about the nature of reality, human nature, society, politics, ethics, and aesthetics. This makes film an excellent place to explore philosophical questions. The course will focus on a director, theme, or genre of film with the goal that film and philosophy mutually explicate one another. (1)

Lecture: 3 hrs./wk.

**PHIL 141 Buddhism**

This course will encounter the varieties of one of the oldest and most diverse religions as it developed in India, China, Japan, Tibet, and the United States. The course will examine Buddhism's history, philosophy, ethics, Art, literature, and ritual practices. First, we will study the life and awakening of the Buddha, how the Buddha's perception of reality transforms our relationships to ourselves and to each other, and how it directs us to live a life of compassion for others. Second, we will see how the Buddha's core teachings changed as they spread to other countries. The course is divided into three parts: Foundations, which provides an introduction to the Buddhist world view; Development, which charts the changes and elaborations made to that world view under the Mahayana philosophers; and Literature, which explores how Buddhist ideas have been expressed in poetry, the novel, and film. (1) (Cross-listed as RELG 141)

Lecture: 3 hrs./wk.

**PHIL 191 Introductory Topics**

This introductory course in philosophy will examine basic topics in philosophy. The course is designed to teach basic philosophical skills as they relate to major divisions of philosophy: metaphysics, epistemology, ethics, politics, and aesthetics. The course may be based on a topic, a problem, or a survey of the field. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

**PHIL 201 Symbolic Logic**

An introduction to truth functional logic including truth tables, and natural deduction in propositional and predicate logic. (1)

Lecture: 3 hrs./wk.

**PHIL 212 Environmental Philosophy**

An introduction to environmental ethics. The course will focus on ethical questions concerning the relationship between humans and the environment. What is the environment? What is the appropriate relation between humans and the environment? Does technology help or hinder this relationship? What responsibilities do humans have with regard to natural resources? (1) (Cross-listed as ENST 212)

Lecture: 3 hrs./wk.

**PHIL 221 Atheism & Belief**

An examination of fundamental questions concerning rationality and religious belief. The course addresses questions such as whether it is rational to believe in God and whether we can know anything about God, along with different ways of answering these questions and the different views of reason and religious faith the answers imply. (Cross-listed as RELG-221) (1)

Lecture: 3 hrs./wk.

**PHIL 223 Ethics and Medicine**

An examination of ethical issues in medicine and the moral principles that might be employed to resolve ethical dilemmas. (1)

Lecture: 3 hrs./wk.

**PHIL 241 Religions and Philosophies of China**

An interdisciplinary examination of the philosophical and religious traditions of East Asia. Topics include the central ideas and practices of these traditions, their historical development, their styles of reasoning, and the relationship between religion and philosophy. (1) (Cross-listed as RELG 241).

Lecture: 3 hrs./wk.

**PHIL 243 Indian Gods, Gurus, and Monsters**

An examination of the religious and philosophical traditions of South Asia. Topics include the central ideas of these traditions, their historical development, their styles of reasoning, and the relationship between religion and philosophy. (1) (Cross-listed as RELG 243).

Lecture: 3 hrs./wk.

**PHIL 251 Early Western Philosophy**

An analysis of the history of Western thought from the rise of classical philosophy with the pre-Socratic philosophers and the pivotal figures of Socrates, Plato, and Aristotle, through the evolution of classical thought in Hellenistic philosophy. (1)

Lecture: 3 hrs./wk.

### **PHIL 253 Medieval Philosophy**

An examination of the way in which thinkers in the middle ages developed the heritage of the classical world, produced a sophisticated intellectual heritage of their own, and laid the groundwork for modern philosophy. The course follows the development of medieval thought with special attention to the work of St. Augustine and St. Thomas Aquinas, as well as the pivotal work of Arabic-speaking philosophers such as Ibn Sina. (1)

Lecture: 3 hrs./wk.

### **PHIL 255 Modern Western Philosophy**

A study of the attempts of thinkers such as Bacon, Hobbes, Descartes, Leibniz, Spinoza, Locke, Hume, and Kant to come to terms with the scientific, political, and religious changes in the modern world. (1)

Lecture: 3 hrs./wk.

### **PHIL 265 American Philosophy**

The development of American philosophy from the colonial period to contemporary thinkers. Particular emphasis will be placed on the pragmatist tradition, including 19th-century thinkers such as Peirce, James, and Dewey, and contemporary figures such as Quine, Davidson, and Rorty. (1)

Lecture: 3 hrs./wk.

### **PHIL 266 Power, Language, Politics**

An examination of contemporary French thinkers, such as Michel Foucault, Gilles Deleuze, and Jacques Derrida. Each of these thinkers represents an important aspect in the development of what has been variously called post-structuralist and postmodernist discourse as it has developed in France since the May 1968 student riots. The purpose of this course is to introduce the student to some important trends in French thought since 1968. (1)

Lecture: 3 hrs./wk.

### **PHIL 290 Intermediate Topics**

The study of a particular issue, theme, or philosopher of current interest. (1)

Lecture: 3 hrs./wk.

### **PHIL 390 Seminar in the History of Philosophy**

This advanced course in philosophy will examine a major figure or movement in the history of philosophy. The course is designed to build on previous philosophical skills, while adding a major component. Figures and topics might include, Plato, Aristotle, Kant, Nietzsche, Stoicism, phenomenology, and pragmatism. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Previous PHIL course or permission.*

### **PHIL 391 Seminar in Contemporary Philosophy**

This advanced course in philosophy will examine a continuing problem in philosophy. The course is designed to build on previous philosophical skills, while adding a major research component. Problems examined might include language, mind, the one and the many, evil, race, and gender. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Previous PHIL course or permission.*

### **PHIL 405, 406, 407 Independent Study and Research**

Selected topics in philosophy carried out under the direction of a member of the departmental staff. Enrollment with the approval of the department. (1/2, 1, 1/2)

### **PHIL 410, 411, 412 Senior Thesis**

At the end of the junior year every major will register with a member of the department to study and write a major paper in the final year. Guidelines, requirements and dates are explained in "The Senior Thesis." (1/2, 1, 1/2)

### **PHIL 415, 416 Internship**

A supervised placement in a business, non-profit, or social service agency in which philosophy is applied. May not be used to fulfill the 300-level or above requirement for the major or minor. 60 hours for ½ unit, 120 hours for 1 unit. Graded Pass/fail. (1/2, 1)

### **PHIL 495, 496, 497 Honors Project**

A program of independent study culminating in a paper.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the Summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **PHYSICS**

*Professors Richard Grant; Associate Professor Daniel Robb; Assistant Professor Fatima; Lecturer Bonnie Price*

The Bachelor of Science degree with a major in physics requires the student to complete a minimum of 13 ½ course units in physics and related fields. These must include Physics 190, 201, 202, 203, 270, 310, 330, 350, 370, 390, and 490. Three additional units chosen within the following guidelines:

- 1) One cross-disciplinary course from CPSC 120; or CHEM 112 or 118; or BIOL 210; or PHYS 250, 260, 299 or ENGS 191, 192, 301, 302, 303, 304;
- 2) One PHYS 400-level topics course (410, 430, 450, 470)
- 3) MATH 332 or any additional 400-level physics course.

*NOTE: Mathematics 121 and Mathematics 122 are prerequisites for Physic 201 and 202, respectively.*

The Bachelor of Arts degree with a major in physics requires the student to complete a minimum of 9 1/2 course units in physics and related fields. These must include: PHYS 190, 201, 202, 203, 270, 310, 490. Three additional units chosen with the following guidelines:

- 1) At least one other PHYS 300-level core course (330, 350, 370, 390)
- 2) At least one additional unit of PHYS courses at 200-level or above or one other ENGS 300-level course from ENGS 301, 302, 303, 304;
- 3) At least one cross-disciplinary course chosen from ENGS 191, 192, 490, 491; CPSC 120, 170; CHEM 111 or 117, CHEM 112 or 118; BIOL 190, 210; NEUR 330, 406; or any MATH 200-level or above;

*NOTE: Mathematics 121 and Mathematics 122 are prerequisites for Physics 201 and 202, respectively.*

### **Minor in Physics**

The minor in Physics requires the student to complete 6 ½ units of Physics including PHYS 190, 201, 202, 203, 270, 310, plus two additional one unit PHYS courses at the 200-level or above, or one additional one-unit PHYS course at the 200-level or above and one-unit ENGS courses at the 300-level or above. *Note: Mathematics 121 and Mathematics 122 are prerequisites for Physics 201 and 202, respectively.*

### **Physics Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **PHYS 102 Introductory Physics for Life Sciences**

This course provides an overview of topics in physics that are of particular importance to the life and medical sciences. The course is non-calculus based and covers mechanics (units, motion, biomechanics, energy) electricity and magnetism, heat, atomic and nuclear physics, fluids, waves, and instrumentations, all in the context of biological systems. (May not be taken for credit by students who have completed PHYS 201; credit may not be received for both PHYS 102 and PHYS 103.) (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

### **PHYS 103 Fundamental Physics I**



Algebra- and trigonometry-based introduction to classical mechanics including the equations of motion, forces, energy, momentum, rotation, fluid dynamics, waves, and sound. (May not be taken for credit by students who have completed PHYS 201; credit may not be received for both PHYS 102 and PHYS 103.) (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

### **PHYS 104 Fundamental Physics II**

Algebra- and trigonometry-based introduction to thermal physics, electricity, magnetism, light, and optics. (May not be taken for credit by students who have completed PHYS 202.) (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: PHYS 102 or PHYS 103 or PHYS 201.*

### **PHYS 190 Physics & Engineering Colloquium**

An on-going discussion of the differences between physics, engineering, and other sciences, all within the context of problem-solving, disciplinary content, the scientific process, the role and boundaries of science, new discovery and cutting-edge technology, and historical biography. (1/2) Graded Pass/Fail.

Lecture: 2 hrs./wk.

### **PHYS 201 Newtonian Mechanics**

Calculus-based, introduction to classical mechanics including forces and motion, energy, momentum, rotation, fluid dynamics, waves and sound. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: MATH 121.*

### **PHYS 202 Electricity and Magnetism**

Calculus-based introduction to electricity, magnetism, light, and optics including interference phenomena. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: PHYS 201 and MATH 122.*

### **PHYS 203 Atomic, Molecular, & Optical Physics**

Calculus-based introduction, quantum phenomena, atomic and nuclear structure, optics, and applications. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisites: PHYS 202.*

### **PHYS 205 Research Experience**

A research project in physics. May be repeated for credit. (1/2)

*Prerequisite: Permission.*

### **PHYS 250 Introduction to Nanomaterials**

21<sup>st</sup> century is a technology centric century due to the progress in the fundamental understanding of materials and their applications. Applications of nanomaterials and nanoscience has implications in a wide variety of fields such as physics, chemistry, biology, materials science, bio-medical engineering and engineering. This course will introduce the fundamental principles of materials and nano-science in order to understand the collective behavior atoms and molecules and their applications. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 201 or permission.*

### **PHST 260 Modeling of Public Health**

Public health policy entails challenging questions. In the process of modeling, scientists analyze data to gain insight into these questions and aid decision-makers. Students will learn epidemiological concepts and practice computational modeling, culminating in a final project which includes a policy recommendation. No prior programming experience required. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 121 or permission.*

### **PHYS 270 Math Methods for Physics**

This intermediate-level course introduces mathematical topics needed by second year physics majors to be successfully prepared for handling upper-level physics courses. Topics are designed to elucidate applications in

physics using vector analysis, coordinate systems, matrix methods, ordinary differential and partial differential equations. Div-Grad-Curl techniques, Infinite series, complex analysis, Fourier and Laplace transforms.

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 201, 202, MATH 122.*

### **PHYS 299 Introductory Special Topics**

Introductory Special Topics courses will provide significant review of fundamental physical concepts and phenomena within a specific sub-disciplinary context. These courses will display how various phenomena in physics are applied to sub-disciplinary questions and how seemingly disparate concepts fit together within the particular sub-discipline. Introductory Special Topics coursework is intended for students at all levels within the physics program, from potential minor to upper-level major. Course may be repeated for credit.

Lecture: 3 hrs./wk.

*Prerequisite: MATH 121, and PHYS 201, or instructor permission.*

### **PHYS 310 Experimental Analysis**

Laboratory experiments related to advanced and modern topics in physics. Data analysis, error propagation, and written and oral scientific presentation skills. (1)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 330 Theoretical Mechanics**

Developed examination of central force motion, coupled systems, rigid body motion, and the Lagrangian and Hamiltonian formulations. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PHYS 203.*

### **PHYS 350 Electromagnetic Theory**

Developed examination of electrostatics, potential theory, dielectric media, magnetostatics, and an introduction to Maxwell's equations. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PHYS 203.*

### **PHYS 370 Thermal Physics**

Examination of the thermal behavior of systems, equations of state, phase transitions, and elements of continuum and statistical approaches. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 390 Quantum Mechanics**

Introductory examination of the wave formulation and notation in solving the time-dependent and time-independent Schrödinger equations including reflection/transmission, barriers, and the hydrogen atom. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 405, 406, 407 Independent Study in Physics**

A research project in physics that results in the production of a scholarly paper and an oral presentation. May be repeated for credit. (1/2, 1, 1/2)

*Prerequisite: Permission.*

### **PHYS 410 Biophysics**

Examination of the role of physical theory, models, and experimental techniques in the study of biological systems. Topics may include biomechanics, membrane transport, electromagnetic properties of cells and organisms, and medical instrumentation. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 416 Internship**

Field experience in a physics-related area such as health physics in an appropriate industry or business. (1)

*Prerequisite: Permission*

### **PHYS 430 Astrophysics**

Development of the foundational theories and unifying nature of the subject of astrophysics. Principles to be studied include interstellar and radiative theory, stellar formation and evolution sequence, galaxy observations and environments, and cosmology. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 450 Physics of Materials**

Focus study of the physics of materials including the collective behavior of atoms and molecules, crystal structure, mechanical, electrical, thermal, magnetic properties of metals, electronic materials, composites, and nanostructures. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 470 Optics and Spectroscopy**

A theoretical introduction to optical phenomena which includes wave motion, geometric principles, polarization, and inference. A significant amount of the course will also be dedicated to the principles of spectroscopic physics, including both optical and non-optical feature generation. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PHYS 203.*

### **PHYS 490 Senior Seminar: Physics Capstone**

Advanced study in selected topics in a seminar format. Scientific presentation skills and review of all areas of physics. (1)

*Prerequisite: Permission.*

### **PHYS 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

### **PHYS 499 Special Topics**

A course offered in various formats designed to give students instruction in a subject not regularly offered. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Permission.*

## **POLITICAL SCIENCE**

*Professors Todd Peppers, Joshua Rubongoya; Associate Professors Daisy Ball, Justin Garrison, Coordinator, Andreea Mihalache-O'Keef, (Chair), Bryan Parsons, Jonathan Snow; Assistant Professor Sarah Murray*

The Bachelor of Arts degree with a major in political science is awarded to students who successfully complete 12 units from the program of study outlined below:

#### **I. Core Requirements** (students must complete each of the following):

POLI 111	Issues in Global Politics
POLI 112	Issues in American Politics
POLI/I.R./CJUS 209	Research Methods in Public Affairs
POLI/I.R. 231	International Politics
POLI 250	Politics and Power in American Policymaking
POLI 401	Seminar in Political Science

#### **II. American Perspective and Public Law** (at least one from category):

POLI 201	State and Local Government
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POLI 202	Voting and Elections
POLI 205	The Presidency and Congress
POLI/CJUS 214	The Judicial Process
POLI 256	U.S. Health Policy
POLI 270	Public Administration
POLI 311	American Constitutional Law
POLI 312	Civil Liberties

**III. Comparative Politics** (at least one from category)

POLI/I.R. 221	Comparative Political Systems: Europe
POLI/I.R. 222	Comparative Political Systems: Asia
POLI/I.R. 223	Comparative Political Systems: Middle East
POLI/I.R. 224	Comparative Political Systems: Africa
POLI/I.R. 225	Comparative Political Systems: Latin America

**IV. Political Theory** (at least one from category)

POLI 244	Liberalism and Conservatism
POLI 245	Ethics and Public Policy
POLI 246	Justice, Revolution, and the Good Society

**Electives (three)**

These can be selected from any of the other Political Science courses, or one from among INQ 260PS, HNRS 260PS, or INQ 177, 277 or 377 with approval of the program coordinator.

**Minor in Political Science**

**A minor consists of six units:**

**Core Requirements (students must complete each of the following):**

POLI 111	Issues in Global Politics
POLI 112	Issues in American Politics

**American Perspectives (at least one from category):**

POLI 201	State and Local Government
POLI 202	Voting and Elections
POLI 205	The Presidency and Congress
POLI/CJUS 214	The Judicial Process
POLI 250	Politics and Power in American Policymaking
POLI 256	U.S. Health Policy
POLI 270	Public Administration
POLI 311	American Constitutional Law
POLI 312	Civil Liberties

**Global Perspectives (at least one from category):**

POLI/I.R. 221	Comparative Political Systems: Europe
POLI/I.R. 222	Comparative Political Systems: Asia
POLI/I.R. 223	Comparative Political Systems: Middle East
POLI/I.R. 224	Comparative Political Systems: Africa
POLI/I.R. 225	Comparative Political Systems: Latin America
POLI/I.R. 231	International Politics
POLI/I.R. 333	Global Political Economy
POLI/I.R. 351	Environmental Public Policy
POLI/I.R. 352	Human Rights Policy

**Political Theory (at least one from category):**

POLI 244	Liberalism and Conservatism
POLI 245	Ethics and Public Policy
POLI 246	Justice, Revolution, and the Good Society

**Elective (one):**

These can be selected from any of the other Political Science courses, or from one from among INQ 260PS, HNRS 260PS, or INQ 177, 277, or 377 with approval of the program coordinator.

**Minor in Foreign Politics**

A minor consists of six units:

**Required (four):**

POLI 111	Issues in Global Politics
I.R./POLI 231	International Politics
I.R./POLI 247	Theory in International Relations
I.R./POLI 353	U. S. Foreign Policy

**Electives (two)** from among the following; at least one of which must be a comparative politics unit:

I.R./CJUS/POLI 209	Research Methods in Public Affairs
I.R./POLI 221	Comparative Political Systems: Europe
I.R./POLI 222	Comparative Political Systems: Asia
I.R./POLI 223	Comparative Political Systems: Middle East
I.R./POLI 224	Comparative Political Systems: Africa
I.R./POLI 225	Comparative Political Systems: Latin America
I.R./POLI 232	International Organizations
I.R./POLI 233	International Law
I.R./POLI 234	The Arab-Israeli Conflict
I.R./POLI 333	Global Political Economy
I.R./POLI 351	Environmental Public Policy
I.R./POLI 352	Human Rights Policy

Courses from among POLI 260-262, 395-396, 401, 406, 416, and 495-497 or one from among INQ 260PS, HNRS 260PS, or INQ 177, 277 and 377 may be substituted when they include-topics related to international politics approval of the program coordinator.

**POLI 106 Research Experience**

Directed experiences conducting research under the supervision of a faculty member, open to all students (major and non-major). May be repeated once for credit. (1/2)

*Prerequisite: Written application approved by program coordinator.*

**POLI 111 Issues in Global Politics**

An introduction to issues in global politics that emphasizes diversity of perspectives, membership in multiple communities, and the linkages between local and global. (1)

Lecture: 3 hrs./wk.

**POLI 112 Issues in American Politics**

An introduction to the constitutional principles, institutions, functions, and processes of politics and government in the United States. (1)

Lecture: 3 hrs./wk.

**POLI 201 State and Local Government**

An examination of the politics, structures, and policies of American state and local governments. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or ENST 105 or permission.*

**POLI 202 Voting and Elections**

An analysis of the political process in the United States, including political parties, interest groups, public opinion, elections, and voting behavior. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or ENST 105 or permission.*

**POLI 205 The Presidency and Congress**

An examination of the power, restraints, and politics of Congress and The Presidency. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or ENST 105 or permission.*

**POLI 209 Research Methods in Public Affairs**

An examination of the research methodologies and techniques used in the study of public policy and politics. The course emphasizes both qualitative and quantitative methods. The lab focuses on statistical applications. (1) (Cross-listed as CJUS 209/I.R. 209).

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: Sophomore standing, POLI 111 or 112, one other course in the major; or ENST 105; or permission.*

### **POLI 214 The Judicial Process**

An exploration of the politics of the American judicial system. This includes such topics as the structure of courts, selection of judges, actors who participate in the judiciary, judicial behavior, and the civil and criminal varieties of courts. (1) (Cross-listed as CJUS 214)

Lecture: 3 hrs./wk.

### **POLI 216 Criminal Procedure**

This course analyzes the pre-trial rights of persons suspected or accused of crime, focusing primarily on those rights found in the Fourth, Fifth, Sixth and Fourteenth Amendments to the U.S. Constitution. (1) (Cross-listed as CJUS 216)

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 211.*

### **POLI 221 Comparative Political Systems: Europe**

The government and politics of Great Britain, France, Germany, Russia, and selected other European states as well as the operations of the European Union. (1) (Cross-listed with I.R. 221)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 222 Comparative Political Systems: Asia**

The government and politics of Japan, China, and Indonesia and ASEAN. (1) (Cross-listed with I.R. 222)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 223 Comparative Political Systems: Middle East**

The government and politics of the Middle East. (1) (Cross-listed with I.R. 223)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 224 Comparative Political Systems: Africa**

The government and politics of Sub-Saharan African politics. (1) (Cross-listed with I.R. 224)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 225 Comparative Political Systems: Latin America**

The government and politics of Latin America, including Central America and the Caribbean. (1) (Cross-listed with I.R. 225)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 231 International Politics**

An examination of the nature of the international political system, the perspectives and behaviors of nation-states, and the role and influence of both intergovernmental organizations and non-governmental actors. (1) (Cross-listed with I.R. 231)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 232 International Organizations**

An examination of global and regional organizations. The nature and functions of both governmental and non-governmental institutions will be discussed. A model United Nations Security Council simulation exercise is an integral course component. (1) (Cross-listed with I.R. 232)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

### **POLI 233 International Law**

An examination of the nature, structure, functions and evolution of the international legal system. The impact of international law on the behavior of international actors and the dynamics of the international system will be explored. (1) (Cross-listed with I.R. 233)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **POLI 234 The Arab-Israeli Conflict**

An examination of the evolution, facts, and narratives that drive the ongoing Arab-Israeli conflict broadly, and the Israeli-Palestinian conflict in particular. (1) (Cross-listed with I.R. 234)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

#### **POLI 244 Liberalism and Conservatism**

A study of the meaning(s) of liberalism and conservatism guided by representative Western and American political theory sources. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111, POLI 112, or permission.*

#### **POLI 245 Ethics and Public Policy**

An examination of ethical theories and the ways in which ethical perspectives shape American public policy. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111, POLI 112, or permission.*

#### **POLI 246 Justice, Revolution, and the Good Society**

A study of the meaning(s) attached to concepts such as justice, revolution, and the good society. Consideration will be given to the ways in which such ideas contribute to interpretations of the historical examples of revolution. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111, POLI 112 or permission.*

#### **POLI 247 Theory in International Relations**

In-depth examination of the theoretical lenses in the field of International Relations, complemented by the application of the theories to contemporary global issues. (1) (Cross-listed with I.R. 247)

Lecture: 3 hrs./wk.

*Prerequisite: I.R./POLI 231 or permission.*

#### **POLI 250 Politics and Power in American Policymaking**

An examination of the scope, nature, outcomes, and political development of the American public policy process. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111, 112 or permission*

#### **POLI 256 U.S. Health Policy**

An examination of health policymaking and health care issues at local, state and national levels in the United States. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or PHST 101 or permission*

#### **POLI 261 Selected Topics in Political Science**

Student research, reports, and discussion on selected problems and themes. ( 1)

Lecture: 3 hrs./wk.

#### **POLI 270 Public Administration**

A survey of the role of public administration in the modern state, with emphasis on the development of bureaucracy, organizational theory, and management functions. (1)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or permission.*

**POLI 311 American Constitutional Law**

An introduction to decision-making in the Supreme Court and its past and present roles in American government. (1)

Lecture: 3 hrs./wk.

*Prerequisites: POLI 112 and one additional course in American politics (201, 202, 205, 270) or permission.*

**POLI 312 Civil Liberties**

An examination of Supreme Court decisions dealing with the Bill of Rights with emphasis on the First Amendment. (1)

Lecture: 3 hrs./wk.

*Prerequisites: POLI 112 and one additional course in American politics (201, 202, 205, 270) or permission.*

**POLI 333 Global Political Economy**

An introduction to the relationship between politics and economics at the theoretical and policy levels. (1) (Cross-listed with I.R. 333)

Lecture: 3 hrs./wk.

*Prerequisite: I.R./POLI 231.*

**POLI 351 Environmental Public Policy**

An examination of environmental policy-making and environmental issues at local, national, and international levels. (1) (Cross-listed with I.R. 351)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or ENST 105 or permission.*

**POLI 352 Human Rights Policy**

An introduction to the principles of human rights from a comparative policy-making perspective. (1) (Cross-listed with I.R. 352)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 111 or permission.*

**POLI 353 U.S. Foreign Policy**

An introduction to the foreign policy process of the United States. Selected issues in United States foreign policy in The Cold War and post-Cold War eras will also be analyzed. (1) (Cross-listed with I.R. 353)

Lecture: 3 hrs./wk.

*Prerequisite: POLI 112 or permission.*

**POLI 395, 396 Henry H. Fowler Public Policy Seminar**

A seminar taught with a scholar-statesperson that deals with a policy issue of public significance. (Made possible by the Henry H. Fowler Endowment. Open to selected students with department permission.) (1, 1/2)

**POLI 401 Seminar in Political Science**

Seminar on selected topics in political science. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Permission of the instructor.*

**POLI 405, 406, 407 Independent Study**

Supervised reading and research which results in a monograph on a particular aspect of political science. (1/2, 1, 1/2)

*Prerequisite: A minimum 3.0 major GPA and both Departmental and instructor permission. POLI 405 is a prerequisite for POLI 407.*

**POLI 416 Public Internship**

Practical experience in working with a public agency or non-governmental organization as a participant-observer, leading to the preparation of an experience report which describes and evaluates that agency's activities. (1)

*Prerequisites: A minimum of 2.5 major GPA and both instructor and major coordinator permission.*

**POLI 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.



*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **PSYCHOLOGY**

*Professor David Nichols (Chair); Associate Professors Christopher Buchholz, Travis Carter, Danielle Findley-Van Nostrand, Darcey Powell; Assistant Professors Wen Bu, Anthony Cate, Michael Love; Lecturer Angela Allen*

The field of psychology is broad, examining scientifically how people think, feel, and behave across their lifespan and in relation to other people. For these reasons, a degree in psychology covers the four domains of developmental, biological, cognitive, and social-personality psychology, with a strong core in research methodology.

### **Bachelor of Science in Psychology**

The Bachelor of Science in Psychology requires the completion of 12 units.

These include:

- ☐ Core Overview Courses (2 units): PSYC 101, PSYC 390.
- ☐ Core Research Methods Courses (3 units): PSYC 202, 204, and one research course (PSYC 410, 415, 430).
- ☐ Domain Courses (4 units): At least one course per domain (Developmental PSYC 221, 321-329; Biological PSYC 231, 330-339; Cognitive PSYC 241, 341-349; Social-personality PSYC 251, 351-359), with two at the 200 level and two at the 300 level in different domains.
- ☐ Electives (3 units): Any PSYC courses at any level, but only one Internship (PSYC 316, 317) and only one unit of Mentored Research (PSYC 306, 311, 312, 405, 406, 407, 495, 496, 497) can count for the major. HNRS/INQ 260PY may count as an elective in the major.

### **Enrollment in Internship and Mentored Research**

For enrollment in an Internship (PSYC 316, 317), a written application must be submitted to the Director of the Internship Program and approved by the department faculty prior to registration. Contact the Internship Director for more information about the application process. For enrollment in Mentored Research (Research Experience PSYC 106; Research Practicum PSYC 306; Independent Study (Literature Review) PSYC 311, 312; Independent Study (Empirical Research) PSYC 405, 406, 407; or an Honors Project PSYC 495, 496, 497, a written application must be submitted to the department chairperson and approved by the department faculty prior to registration. Information about the application process for Internships and Mentored Research can be found under the Research and Internships section of the department website.

### **Minor in Psychology**

Psychology intersects with many other areas of study in a variety of ways because of its focus on people. A minor in psychology can be a useful addition to any major with the selection of courses tailored to fit what is most relevant to the student.

The minor in psychology requires the completion of 6 units.

- ☐ Core Introduction (1 unit): PSYC 101 or HNRS/INQ 260PY.
- ☐ Core Research Methods (1 unit): PSYC 202, SOCI 351 or 352, CJUS/POLI/I.R. 209, COMM 350, HEXS 230.
- ☐ Domain Courses (2 units) : PSYC 221, 231, 241, 251.
- ☐ Electives (2 units): An additional 2 PSYC courses, at the 300 level, excluding Internship (PSYC 315, 316, 317) and Mentored Research (PSYC 306, 311, 312).

### **Human Development Concentration**

*Associate Professor Darcey Powell, Coordinator*

The Concentration in Human Development exposes students to the broader life-span perspective and allows them to focus on the stages (e.g., childhood, adolescence, adulthood) and the topics most applicable to their personal or professional goals. The concentration requires six units, described below.

Human development-related inquiry or intensive learning courses, special topics courses (in any discipline), or other appropriate courses (e.g., transfer or study abroad courses) may also be counted toward completion of the two elective courses with approval of the concentration advisor.

**Courses:**

**Developmental Overview (1 unit):**

PSYC 221 – Developmental Psychology

**Social Science Research Methods (1 unit):**

PSYC 202 – Research Methods

CJUS/POLI/I.R. 209 – Research Methods in Public Affairs

COMM 350 – Research Methods

HEXS 230–Research Methods in Health and Exercise Science

SOCI 351 – Qualitative Methods & Analysis

SOCI 352 – Quantitative Methods & Analysis

**Focused Developmental Courses (2 units):**

PSYC 321 – Child Development

PSYC 322 – Adolescent Development

PSYC 323 – Adult Development and Aging

PSYC 327 – Interpersonal Relationships

PSYC 328 – Developmental Disabilities

PSYC 329 – Topics in Developmental Psychology

**Human Development Electives (2 units):**

**PSYC course options:** PSYC 316–319, PSYC 321–329, PSYC 330–339, PSYC 341–349,

PSYC 351–359, PSYC 381–384

**ANTH course option:** ANTH-240

**CJUS course options:** CJUS 231, CJUS-352

**EDUC course option:** EDUC 250

**POLI course option:** POLI/I.R.-352

**RELG course option:** REGL-225

**SOCI course options:** SOCI-226, SOCI-238, SOCI-338

**Other courses as approved by concentration advisor**

**PSYC 101 Introduction to Psychology**

An overview of the field of psychology with emphasis on basic processes in human behavior. (1)

Lecture: 3 hrs./wk.

**PSYC 106 Research Experience**

Directed experience conducting empirical research under the supervision of a faculty member. Open to all students (majors and non-majors). May be repeated for credit. (1/4)

*Prerequisite: Written application approved by department.*

**PSYC 110 Pursuing Your Purpose**

The goal of this course is to help you identify your vocation, as well as inform you of the resources available to you within the psychology department and across the college, as you find your niche and prepare yourself for post-graduation success. To promote our exploration in finding your vocation, this course will also have a community based learning component. This course is primarily for psychology majors – ideally at the sophomore level – or those who are considering changing their major to psychology. This course will be graded on a pass-fail basis. (1/2)

Lecture: 1 ½ hrs./wk.

**PSYC 202 Research Methods in Psychology**

An examination of the research methods used in the fields of psychology. Topics include introductions to and evaluations of observational, relational and experimental research methods and designs. Ethics and research, communication and research, the development of research ideas and the reliability and validity of research are also examined.

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 204 Quantitative Methods in Psychology**

An examination of techniques used by psychologists to measure behavior and to analyze and interpret the data. The course includes an introduction to computer data analysis through a laboratory component. (1)

Lecture: 3 hrs./wk.; Laboratory: 1.5 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 221 Developmental Psychology**

An examination of development of the individual across the lifespan (i.e. from conception until death). (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 231 Biological Psychology**

An overview of general principles and areas of research of biological psychology. Topics covered include neuronal functioning, how aspects of human behavior are controlled by the brain, and basic research techniques in biological psychology. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 241 Cognitive Psychology**

An examination of the research and theory of complex cognitive processes. Topics covered include attention, perception, memory, language, problem solving, and reasoning. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 251 Social Psychology**

A study of the influence of people on each other's behavior, including social influence and social interaction. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 306 Research Practicum**

Directed study and empirical experience under the supervision of a faculty member. May be repeated for credit. (1)

*Prerequisite: Written application approved by department.*

### **PSYC 311, 312 Independent Study (Literature Review)**

Extensive literature review, with faculty supervision. May be repeated for credit. (1/2, 1)

*Prerequisite: Written application approved by department.*

### **PSYC 315 Internship**

Practical experience in a setting in which psychology is applied. (1/2) *Written application approved by department. May be repeated for credit. This course will be graded on a pass-fail basis.*

### **PSYC 316, 317 Internship**

Practical experience in a setting in which psychology is applied. Placements in mental health facilities and other community agencies and institutions. Seminar on relevant topics. (One unit may be counted as an elective in the major). (1, 1)

*Prerequisite: Written application approved by department.*

### **PSYC 319 Special Topics in Psychology**

A course offered in various formats, designed to give students instruction in a subject not regularly offered. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission. May be repeated for credit.*

### **PSYC 321 Child Development**

An examination of development of the individual from conception to puberty. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 322 Adolescent Development**

An examination of development of the individual from puberty to early adulthood. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 323 Adult Development and Aging**

An examination of development of the individual from early adulthood to old age. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 327 Interpersonal Relationships**

This course examines the current theories and research related to interpersonal relationships. Specifically, we will study family, peer, and intimate relationships. The focus will be on dyadic relationships, but some attention will also be given to triadic and group relationships (e.g., family as a whole or peers in school/work setting). (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 328 Developmental Disabilities**

Evidence-based information about developmental disabilities will be presented and discussed, including epidemiology, etiology, diagnoses, risk factors, prevention, treatment, systems of care, and philosophical, ethical, and legal issues.

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 329 Topics in Developmental Psychology**

A thorough examination of a particular topic within the domain of human development that is not covered extensively in other regularly offered courses. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission. May be repeated for credit.*

### **PSYC 330 Principles of Neuroscience**

This course will provide a detailed understanding of neurons and the functional role of different aspects of the human nervous system. A survey of topic areas relevant to psychology and neuroscience related disciplines and an introduction to techniques in neuroscience will also be included. (Cross-listed with NEUR 330). (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or BIOL 190 or permission.*

### **PSYC 332 Drugs and Behavior**

An examination of the mechanisms of actions, uses, effects and abuse liability of range of drugs. Both therapeutic drugs (such as antidepressants and antipsychotics) and recreational drugs (such as alcohol, stimulants and marijuana) will be addressed. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or PSYC 330.*

### **PSYC 335 Neuropsychology**

Examines the field of neuropsychology through the examination of common disorders found in neuropsychology, assessment techniques, and the application of knowledge of the relevant concepts to the interpretation and solution of disorders of brain-behavior relationships. (Cross-listed with NEUR 335). (1)

Lecture: 3 hrs./wk.

*Prerequisites: NEUR/PSYC 330 or permission.*

### **PSYC 336 Sensation and Perception**

Study of the functionality of the different senses and how perception arises within the human brain. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or NEUR 330 or permission.*

**PSYC 339 Topics in Biological Psychology**

A thorough examination of a particular topic within the domain of biological psychology that is not covered extensively in other regularly offered courses. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission. May be repeated for credit.*

**PSYC 341 Human Memory**

Examines the principles of memory processes, classic and contemporary theories, and methods of research. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

**PSYC 342 Learning**

Principles of learning processes, classic and contemporary theories, and methods of research. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

**PSYC 343 Judgement and Decision-Making**

Examines human judgement and decision-making, using both theory and empirical research drawn from a wide array of disciplines, including social and cognitive psychology, economics, philosophy, and statistics. The course particularly explore the discrepancy between how decisions should be made and how they are actually made. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

**PSYC 344 Creative Thinking and Problem-Solving**

An introduction to creative thinking and creative problem solving, including definitions, theories, and strategies of creative thinking and problem solving, as well as assessment and research on creativity and the creative process. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

**PSYC 349 Topics in Cognitive Psychology**

A thorough examination of a particular topic within the domain of cognitive psychology that is not covered extensively in other regularly offered courses. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission. May be repeated for credit.*

**PSYC 351 Personality**

Theories of personality, applications, and extensions of these theories, current research on individual differences, and methods and issues in personality measurement. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

**PSYC 352 Self and Identity**

What is the self? How are we different from other animals? Do we have free will? How can we change ourselves? In this course, we examine consciousness, mind-reading, mental time travel, and many other features of the self including self-esteem, personality, identity, and cross-cultural differences in how we think about ourselves. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

**PSYC 354 Evolutionary Psychology**

An examination of the human mind as a set of evolved adaptations shaped to address challenges of survival and reproduction, such as avoiding disease and predators, finding a mate, raising children, and living in social groups. The course emphasizes the most current empirical literature connecting evolutionary principles to human psychology. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 355 Cross-Cultural Psychology**

The study of human behavior and mental processes, including both differences and consistencies, across different cultures. The aim is to examine systematic relations between cultural factors and behavior, as well as the generalizability of psychological principles across cultures. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 359 Topics in Social-Personality Psychology**

A thorough examination of a particular topic within the domain of social-personality psychology that is not covered extensively in other regularly offered courses. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: PSYC 101 or HNRS/INQ 260PY or permission. May be repeated for credit.*

### **PSYC 381 Abnormal Psychology**

A study of individual psychopathology and deviant behavior, including diagnosis, theories, causes, and treatments. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 382 Industrial-Organizational Psychology**

An overview of industrial-organizational psychology including current research on individual behavior in complex organizations. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 383 Counseling Psychology**

An exploration of several of the most important theories of and approaches to counseling and psychotherapy, including a description of skills, strategies, and techniques. Attention is also given to efficacy and effectiveness of counseling and therapy, the nature of training and education of helping professionals, and ethics in the helping professions. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 251 or PSYC 381 or permission.*

### **PSYC 384 Clinical Psychology**

This course will expose students to the field of clinical psychology. Over the course of a semester, students will learn the history of the field, the specific research methods used in mental health research, the assessment of psychological constructs, the diagnosis of psychological disorders, and the theories and intervention techniques used to treat individuals with psychological distress. Students will leave the course with a practical knowledge of psychologist as clinician, researcher, consultant, and public health advocate. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 101 or HNRS/INQ 260PY or permission.*

### **PSYC 390 History of Psychology**

Examines the major philosophical and scientific trends that led to the establishment of scientific psychology, as well as the early paradigms and systems that helped shape modern psychology. This course also includes a careers component focused on preparing students for entering graduate school and/or the job market. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Three or more PSYC courses or permission.*

### **PSYC 402 Pursuing Research Publication**

A combination of study, self-reflection, and practical experience on writing effectively from publication in psychology research journals. (1)

Lecture: 3 hrs./wk.

**PSYC 405, 406, 407 Independent Study**

Empirical research project with faculty supervision. (1/2, 1, 1/2)

*Prerequisite: Written proposal and application approved by department.*

**PSYC 410 Research Seminar: Psychology**

An advanced, research-oriented seminar where students in small groups propose and carry out an empirically based research study. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 202, 204 and a 300 level PSYC course. May be repeated for credit.*

**PSYC 415 Test and Measurements**

Principles and methods of psychological measurement and test construction, with consideration of administration and psychometric evaluation of representative tests. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PSYC 202, 204 and a 300 level PSYC course.*

**PSYC 430 Research Seminar: Neuroscience**

An advanced, research-oriented seminar in human, invertebrate, or computational neuroscience. (Cross-listed with NEUR 430). (1)

Lecture: 3 hrs./wk.

*Prerequisites: NEUR/PSYC 330 or permission.*

**PSYC 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. (1/2, 1, 1/2)

*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. At least 1 unit of Independent Study (311, 312, 405, 406, 407) or permission is a prerequisite to 495, 496, and 497.*

**PUBLIC HEALTH STUDIES**

*Associate Professor Shannon Anderson, Coordinator*

Public Health Studies is a liberal arts program designed to illuminate the multiple and complex ways in which health is related to all aspects of human life and the function of societies through rigorous investigation and analysis. The Bachelor of Arts in Public Health Studies prepares students in the breadth of public health as an academic discipline, and especially in areas of research methodology and analysis, social disparities in health, global perspective, and attending to the spread of disease. This curriculum prepares students to move into the field of Public Health in the broadest sense: as graduate students in any of the health professions (MD, RN/BSN, PT, OT, MSW, MPH, etc.) as employees working in health care settings, health-related businesses, in health analytics or IT, and in the many related fields that deal with the well-being of people and places. The Bachelor of Arts in Public Health Studies requires the completion of 11 units, a six-unit Core and five additional units (two from the subfields list and three from the list of Electives). The subfields represent a combination of the dominant subfields in academic public health and health-related strengths here at the College. The electives represent ways students can combine their studies across many disciplines with studies in public health. Students will work closely with advisors to select the subfields and electives that best suit their academic and professional goals.

**Core**

PHST 101	Health and Society: Introduction to Public Health Studies
ANTH/PHST/SOCI 202	Global Health and Culture
PHST 204	Social Determinants of Health
PHST 301	Introduction to Epidemiology
PHST Practicum	Students complete one unit: PHST 405 & 407, PHST 406, PHST 416, or PHST 495 & 497, 496

**Subfields** (students complete three)

ACSI/BUAD 201	Risk Management
BIOL 235	Microbiology
ECON 227	Health Economics
ECON 248	Data Visualization
I.R./POLI 351	Environmental Public Policy
PHIL 223	Ethics and Medicine
PHST 205	Disability Studies and Theory
PHST/PHYS 260	Modeling of Public Health
PHST/SOCI/ANTH 275	Public Health and Social Justice
POLI 256	U.S. Health Policy
PSYC 221	Developmental Psychology
SOCI 201	Social Inequality
SOCI 325	Medical Sociology
SOCI/PHST 331	Environmental Public Health
SOCI 338	Women's Lives Around the World: Global Perspectives

**Electives** Students will complete two units; courses from Subfields may be counted as electives; only one unit may be at the (100-level); only one unit from the following list may be used as elective credit: PHST 405 & 407, 406, 416, 495 & 497, 496.

ANTH 101	Introduction to Cultural Anthropology
ANTH 212	Food and Culture
ANTH 380	Creating Community Change: Applied Anthropology
BIOL 106	Human Biology
BIOL 180	Exploring Diversity in Biology
BIOL 190	Exploring Unity in Biology
BIOL 230	Human Anatomy & Physiology I
BIOL 290	Parasitism
BIOL 370	Immunology
BIOL 420	Developmental Biology
BUAD 218	Information Systems
BUAD 254	Organizational Behavior
BUAD 274	Human Resource Management
CHEM 221	Organic Chemistry I
CHEM 222	Organic Chemistry II
CHEM 270	Environmental Chemistry
CHEM 340	Pharmaceutical Chemistry
CHEM 341	Biochemistry I
CHEM 342	Biochemistry II
CPSC 120	Programming
CPSC 361	Systems Administration
ENSC 101	Environmental Science
ENST 103	Introduction to Environment and Culture
ENST 105	Introduction to Environment and Society
ENSC 270	Geographic Information Systems
ENST 240	Environmental Justice
ENST 290	Sustainable Agriculture and Food Systems
HEXS 208	Exercise Testing and Prescription
HEXS 325	Exercise Physiology
HEXS 402	Special Populations
HIST 269	History of Sexuality in the U.S.
PHIL 101	Introduction to Logic



PHST 405 & 407, 406	Independent Study
PHST 416	Internship
PHST 495 & 497, 496	Honors Project
POLI 270	Public Administration
PSYC 231	Biological Psychology
PSYC 321	Child Development
PSYC 322	Adolescent Development
PSYC 323	Adult and Aging Development
PSYC/NEUR 330	Principles of Neuroscience
PSYC 332	Drugs and Behavior
PSYC 383	Counseling and Psychotherapy Approaches
SOCI 101	Introduction to Sociology
SOCI 241	Introduction to Social Welfare
SOCI 337	Environmental Sociology
SOCI 340	Crowds, Panics and Disasters
SOCI 375	Field Research & Organization Analysis
SPAN 332	Spanish for Healthcare

*Selected Topics, HNRS, INQ, Independent Studies, and Internships may be approved as Elective or Subfield units by program faculty.*

### **Minor in Public Health Studies**

#### **Core**

PHST 101	Health and Society; Introductory to Public Health Studies
ANTH/PHST/SOCI 202	Global Health and Culture
PHST 204	Social Determinants of Health

PHST Practicum; students complete one unit: PHST 405 & 407, PHST 406, PHST 416, PHST 495 & 497, 496

\*Students will take at least one unit of PHST 202 or ANTH 203 (if they take both, ANTH 203 will be counted as a subfield course).

#### **Electives**

Two electives are required. Only one unit may be at the 100 level. At least one unit must come from Subfields and one may come from electives (see above). The following courses may not be used as electives in the minor: PHST 405 & 407, 406, 416, 495 & 497, 496.

#### **PHST 101 Health and Society: Introduction to Public Health**

This course provides an introduction to the field of Public Health. We will survey foundational issues and opportunities to show the breadth of the discipline. You will learn to see the world—and nearly every aspect of human social life—through a new lens, wherein a population health is related to social structures and human behaviors. We will consider the relationship between health and economics, technology, education, race, gender, place, and culture, including an emphasis on social disparities in health. We will place the US health care system within its global context, working to better understand basic modules of health care as practiced around the world. You will also learn of the vast opportunities for careers in health, ranging from clinical paths to health administration to health analytics. This course challenges assumptions about what health is and how we approach it, as we engage in this first look at public health.(1)

Lecture: 3 hrs./wk.

#### **PHST 202 Global Health and Culture**

This course uses anthropology, sociology and public health to provide an introduction to global health. The primary course goal is to gain a strong understanding of how multiple cultural, social, economic, environmental and political factors affect health differently in different parts of the world. You will learn about interventions to help people around the world live longer, healthier lives. (1) (Cross listed with ANTH 202 and SOCI 202)

Lecture: 3 hrs./wk.

#### **PHST 204 Social Determinants of Health**

The purpose of this course is to deepen students' understanding of the ways in which social conditions, including economic, political, geographic, and cultural contexts, shape population health. We will apply public health theories and principles to examine the causes of socioeconomic, racial, and gender inequities in health. In addition, we will explore how social conditions indirectly affect health by influencing health-related behaviors. Ultimately, this course will illuminate the need to better understand the social determinants of population health in order to develop proactive, prevention-based strategies for reducing health inequities. (1)

Lecture: 3 hrs./wk.

### **PHST 205 Disability Studies and Theory**

How does a culture determine who has a disability and who is “able-bodied” or “able-minded”? How has the definition of disability changed in American culture over the past several decades, and affected those who are considered disabled? This course will explore these questions and more, including when a trait is considered a disability instead of one that helps a person adapt to their environment, how having a disability or being classified as having a disability affects an individual over their lifetime, and how images of disability in literature and pop culture affect attitudes toward disability. As we seek to answer these questions, we will look for ways to individuals and communities to embrace the wide range of body variability. (1)

Lecture: 3 hrs./wk.

### **PHST 260 Modeling of Public Health**

Public health policy entails challenging questions. In the process of modeling, scientists analyze data to gain insight into these questions and aid decision-makers. Students will learn epidemiological concepts and practice computational modeling, culminating in a final project which includes a policy recommendation. No prior programming experience required. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 121 or permission.*

### **PHST 275 Public Health & Social Justice**

This course will explore questions of public health and social justice with an emphasis on health equity given ongoing evidence of disparities rooted in the social world. We will carefully consider the notion of justice and how concerns about just distribution may be elided in a strongly individualistic culture. (1)

Lecture: 3 hrs./wk.

### **PHST 301 Introduction to Epidemiology**

Epidemiology is the science of public health. This course is designed to introduce the philosophy, purpose, and basic methods of epidemiology. By applying epidemiologic research methods and analysis, we will identify descriptive patterns of disease in the population. That is, who is affected by disease, and how do patterns of disease vary across time and place? We will also consider systematic, epidemiologic approaches to identify why particular patterns of disease emerge. That is, how can epidemiologic methods be used to identify the structural, behavioral, and biological determinants of health and disease? If we want to remedy health-related problems and build a healthier, safer social world, identifying these patterns and determinants of disease is crucial. Finally, we will consider how epidemiology lays the foundation for applied public health practice, including the investigation of disease outbreaks, allocation of health-related resources, development of best practices in medicine, and creation and assessment of policies. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PHST 101 and 202 or permission.*

### **PHST 331 Environmental Public Health**

Of concern to any society is the health of its people. The connections between human health, environmental degradation, and the built environment is the focus of this course. From a social science perspective, we will study the social and physical environmental determinants of health that contribute to unequal outcomes. The social production of environmental health risks and community responses to environmental threats and health problems will be examined. The course draws on the subfields of medical and environmental sociology to explore environmental health problems and their link to environmental justice concerns. (Cross-listed with SOCI 331). (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level SOCI course or PHST 101 or ENST 105 or permission.*

**PHST 405, 406, 407 Independent Study**

A supervised research project or extensive literature review. (1/2, 1, 1/2)

*Prerequisites: Written proposal approved by the department.*

**PHST 416 Community Internship**

Practical experience in a health-related community setting in which principles of public health are applied.

Students present their findings to a college audience. (1)

*Prerequisites: Written proposal approved by the department.*

**PHST 420 Community Health Seminar**

A capstone course for the Public Health Studies major that includes an in-depth review and analysis of major themes within Public Health Studies. (1)

Lecture: 3 hrs./wk.

**PHST 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. (1/2, 1, 1/2)

*Prerequisites: To qualify for consideration to receive honors in the major, a student, in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project.*

## **PUBLIC HISTORY CONCENTRATION**

*Associate Professor Samantha Rosenthal, Coordinator*

Students in any major interested in developing a specialization in Public History may earn a concentration in Public History by successfully completing (with a cumulative grade point average of at least 2.0) at least six units. Of these, three units must be from the list of core courses, two units can be from the list of electives, and one unit must be a capstone Independent Study, Internship, or practicum approved by the concentration's coordinator.

Students may count courses from the list of capstone courses as electives. Students may take two discrete internship units, one internship unit to satisfy the core requirement and a second internship unit for the required capstone.

Special topics courses, IL courses, Intellectual Inquiry and Honors courses may apply toward the concentration when applicable and with the permission of the concentration coordinator. Of the six units of study, four must be classroom based.

Any course listing that is followed by “★” must be approved by the concentration coordinator.

**I. Core Courses (3 units)**

**1. One history survey course (from the following) (1 unit):**

HIST 110	Ancient World
HIST 120	Medieval World
HIST 130	Early Modern World
HIST 140	Modern World
HIST 200	United States History

**2. Required concentration course (1 unit)**

HIST 205	Introduction to Public History
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**3. Required Internship (1 unit)**

HIST 415, 416, 417	Internship
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## II. Electives (2 units)

ANTH/ARTH/HIST 218	Introduction to Archaeology
ANTH 310	Ethnography
ANTH 380	Creating Community Change: Applied Anthropology
ARTH 224	Encyclopedic Museum and Archaeological Ethics
ARTH 276	Arts of the U.S.
ARTH 291	Special Topics
ARTH 296	Global Contemporary Art and Architecture
ENSC 270	Geographic Information Systems
HIST 206	Historical Archaeology
HIST 207	American Material Culture
HIST 208	Archaeology of Slavery
HIST 209	Introduction to Digital History
HIST 290	Special Topics★
HIST 390	Issues in Public History
HIST 490	Research Seminar★
THEA 125	Stagecraft
THEA 275	Costume Construction
THEA 375	Costume Design for the Stage

## III. Required Capstone (1 unit)

ARTH 420	Exhibition Practicum
HIST 401	Archives Practicum
HIST 402	Historical Journal Editing Practicum
HIST 403	Museum Practicum
HIST 404	Library Practicum
HIST 405, 406, 407	Independent Studies★
HIST 408	Public History Practicum
HIST 415, 416, 417	Internship
HIST 495, 496, 497	Honors Project★

★Special topics courses, HIST 300-level courses, IL courses, Intellectual Inquiry and Honors courses may apply toward the concentration when applicable and with the permission of the concentration coordinator.

## PUBLIC POLICY CONCENTRATION

*Associate Professors Justin Garrison, Bryan Parsons, Coordinator*

The concentration allows students to study the nature, scope, and instruments of public policy by drawing from a variety of different perspectives and contemporary policy issues. The concentration is designed to give students flexibility in selecting courses that are relevant to their career interests.

### Core

Complete the following *three* core courses. (Prerequisites in parentheses)

POLI 245	Ethics and Public Policy (POLI 111, POLI 112, or permission)
POLI 250	Politics and Power in American Policymaking (POLI 112, or permission)
<i>or</i>	
PUPL 450	Analyzing Public Policy (Junior or Senior standing, or permission)

Public Policy Practicum      Complete one unit: POLI 405 and 407, POLI 406, POLI 495 and 497, POLI 496  
*A Selected Topic, Independent Study, and/or Internship unit from another discipline may be approved as the Public Policy Practicum unit by the program coordinator.*

### Electives

Complete any three of the following elective courses. (Prerequisites in parentheses)

CJUS/SOCI 240	Inequality in Criminal Justice (CJUS 211, SOCI 101, or INQ 250SP)
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ECON 227	Health Economics (ECON 120 or 121)
ECON 232	Money and Banking (ECON 121 and 122)
ECON 247	International Trade and Finance (ECON 121 and 122)
ECON 257	Competition, Monopoly, and Public Policy (ECON 120 or 121)
HIST 266	Modern American Diplomatic History
I.R./POLI 333	Global Political Economy (RELG/POLI 231)
I.R./POLI 351	Environmental Public Policy (POLI 111 or ENST 105 or permission)
I.R./POLI 352	Human Rights Policy (POLI 111 or permission)
I.R./POLI 353	U.S. Foreign Policy (POLI 112 or permission)
PEAC 201	Introduction to Peace & Justice Studies
PHST 201	Health and Society: Introduction to Public Health
ANTH/PHST/SOCI 202	Global Health and Culture
POLI 256	U.S. Health Policy (POLI 112 or PHST 201 or permission)
POLI 270	Public Administration (POLI 112 or permission)
SOCI 335	Global Population Problems (200-level SOCI or ENST 105 or permission)
SOCI 337	Environmental Sociology (200-level SOCI or ENST 105 or permission)
<i>Selected Topics, HNRS, INQ, Independent Studies, and Internships may be approved as Elective units by the program coordinator.</i>	

#### **PUPL 450 Analyzing Public Policy**

An interdisciplinary study of the essential principles of thinking, analyzing, and communicating about contemporary problems in public policy for students interested in careers in policy related fields. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Junior or Senior standing or permission.*

### **PUBLISHING AND EDITING CONCENTRATION**

*Assistant Professors Mary Hill, Coordinator, Teresa Milbrodt*

The Publishing and Editing Concentration requires completion of six units.

#### **Two required classes offer an introduction to the field:**

PUBL 201	Introduction to Publishing
PUBL 225	Editing, Grammar, and Style

**Four additional units selected from the list below. No more than two of the selected units may have the same designator.**

ART 111	Drawing I
ART 151	Basic Design
ART 261	Graphic Design I
ART 361	Graphic Design II
BUAD 233	Marketing Management
BUAD 254	Organizational Behavior
BUAD 264	Foundations in Leadership
BUAD 364	Team Dynamics
COMM 202	Mass Communication
COMM 317	Professional Communication
COMM 319	Writing for Media
CRWR 215	Creative Writing – Fiction
CRWR 216	Creative Writing – Poetry
CRWR 315	Advanced Creative Writing – Fiction
CRWR 316	Advanced Creative Writing – Poetry
CRWR 317	Advanced Creative Writing – Special Topics
ENGL	Any 200 or 300 level ENGL course.

Internships, Independent Studies, and courses in any discipline that involve publishing and/or editing may be approved for credit by the director of the publishing and editing concentration. Internships with the college's national literary journal, *Roanoke Review*, are encouraged.

### **PUBL 201 Introduction to Publishing**

A study of the publishing industry's standards and structures. Students determine texts' appropriateness for publication according to aesthetic and market consideration. (1)

Lecture: 3 hrs./wk.

### **PUBL 211 Special Topics in Publishing and Editing**

Focused study of a topic in publishing. (1)

Lecture: 3 hrs./wk.

### **PUBL 225 Editing, Grammar, and Style**

A study of the structure of the English language and methods for both macro- and micro-editing. Students analyze text and edit it according to principles of unity, grammar, and style. (1)

Lecture: 3 hrs./wk.

### **PUBL 311 Special Topics in Publishing**

Advanced study of a focused topic in publishing. (1)

Lecture: 3 hrs./wk.

*Prerequisites: PUBL 201 or permission.*

## **RELIGIOUS STUDIES**

*Professors Jennifer Berenson (Chair), James Peterson, Ned Wisnefske; Associate Professor Melanie Trexler; Lecturer Marwood Larson-Harris*

Religions are complex, dynamic traditions that deserve thoughtful attention. These traditions continually draw on their past through ongoing reinterpretation of traditional ideas, texts, rituals, and practices while at the same time responding to the new challenges and realities of the present moment. As a result, religious traditions experience both internal moments of tension and change as well as critical moments raised through interaction with the wider culture. The Religious Studies major allows students to study a variety of religious traditions, in the past and in the present, with attention to their internal development and their interactions with their own societies. The goal of the program is for students to be able to analyze and formulate informed, empathetic responses to contemporary critical moments experienced by religious communities and to be able to describe insights that religious traditions bring to the modern world in those moments. Our program is also designed so that students will learn to have productive and positive interactions with people of various religious traditions and will personally engage with questions of ultimate concern.

### **Major in Religious Studies**

A major in Religious Studies requires completion of 9 units:

#### ***Required Core:***

RELG 130	Living Religions of the World
RELG 301	Methods and Theories in the Study of Religion
RELG 491	Seminar in Contemporary Religious Issues

***Electives:*** 6 units chosen from among RELG courses with no more than one additional unit at the 100-level. Relevant courses from other disciplines may be counted toward the major with the permission of the department. One relevant HNRS/INQ course (270, 271, 300, or May Term) can be counted toward the major with the permission of the department.

The department honors its Lutheran heritage and offers many courses in the Christian tradition. Students who wish to specialize in the Christian tradition should choose their electives from among the following: RELG 102, 201, 202, 210, 212, 216, 220, 225, 231, 246, 282, 284, 286, 317, 340. Topic courses and independent studies may be counted as appropriate with the approval of the department.

Students who wish to pursue graduate work in Religious Studies are encouraged to take relevant history and language courses while at Roanoke College.

### **Minor in Religious Studies**

A minor in Religious Studies requires completion of 6 units:

**Required:** RELG 130      Living Religions of the World  
                 RELG 301      Methods and Theories in the Study of Religion

**Electives:** 4 units chosen from among RELG courses with no more than one additional unit at the 100-level. Relevant courses from other disciplines may be counted toward the minor with permission of the department. One relevant HNRS/INQ course (270, 271, 300, or May Term) can be counted towards the minor with the permission of the department.

### **Concentration in Parish Youth Leadership**

Students from any department may pursue a concentration in Parish Youth Leadership. The concentration requires six units:

- ☐ RELG 225 Religious Life of Young Adults
- ☐ One unit of relevant internship experience
- ☐ Three units in the Christian religious tradition chosen from RELG 102, 201, 202, 210, 212, 216, 220, 231, 246, 282, 284, 286, 317, 340. Topic courses and independent studies may be counted as appropriate with the approval of the department.
- ☐ One unit in an allied field, such as EDUC 250, PSYC 101, SOCI 101, 201, 224, 226, 229, 235, 236, INQ 260PY, 260SO, PHIL 223 or any RELG course not exclusively focused in the Christian religious tradition. Relevant courses offered by other programs or under INQ may be counted with the approval of the department.

### **Concentration in Theology**

Students from any department may pursue a concentration in Theology. The concentration requires the completion of 6 units. Up to 2 of these units may be language courses in Greek, Hebrew, or Latin. The remainder of the units taken must be chosen from 102, 201, 202, 210, 212, 216, 220, 225, 231, 246, 282, 284, 286, 317, 340 and PHIL 251 or 253. Topics courses and independent studies in RELG may be counted as appropriate with the approval of the department. Relevant courses offered by other programs or under INQ may be counted with the approval of the department.

### **RELG 102 Introduction to Christian Theology**

An examination of the basic tenets of Christian belief, its scriptures, its moral teachings, and way of life. (1)

Lecture: 3 hrs./wk.

### **RELG 103 The Jewish Tradition**

An overview of the history of Judaism, its teachings, and its traditions. (1)

Lecture: 3 hrs./wk.

### **RELG 130 Living Religions of the World**

The major living religions of the world; their sources, nature, and attempt to deal with certain human problems. (1)

Lecture: 3 hrs./wk.

### **RELG 140 Religion at the Movies**

This course critically probes the way contemporary films reveal points of tension between religious traditions and the societies in which they are embedded. (1)

Lecture: 3 hrs./wk.

**RELG 141 Buddhism**

This course will encounter the varieties of one of the oldest and most diverse religions as it developed in India, China, Japan, Tibet, and the United States. The course will examine Buddhism's history, philosophy, ethics, Art, literature, and ritual practices. First, we will study the life and awakening of the Buddha, how the Buddha's perception of reality transforms our relationships to ourselves and to each other, and how it directs us to live a life of compassion for others. Second, we will see how the Buddha's core teachings changed as they spread to other countries. The course is divided into three parts: Foundations, which provides an introduction to the Buddhist world view; Development, which charts the changes and elaborations made to that world view under the Mahayana philosophers; and Literature, which explores how Buddhist ideas have been expressed in poetry, the novel, and film. (1) (Cross-listed w/PHIL 141)

Lecture: 3 hrs./wk.

**RELG 170 Introductory Issues in Religious Traditions**

An introduction to a religious issue across a number of religious traditions. (1)

Lecture: 3 hrs./wk.

**RELG 201 Israelite Patriarchs, Prophets, Princes and Priests**

An historical and critical study of the religion, history, and literature of ancient Israel. Particular attention will be given to understanding the differences between historical and faith-based modes of interpreting scripture. (1)

Lecture: 3 hrs./wk.

**RELG 202 New Testament Christianities**

An historical and critical study of the earliest Christian communities and their literature. Particular attention will be given to understanding early Christians' complicated relationship with Judaism and Greco-Roman society. (1)

Lecture: 3 hrs./wk.

**RELG 204 Islam**

This course will not only be an introduction to the Qur'an, the Muslim faith, and the fabric of Islamic societies, starting with the life of Muhammad, but we will explore Islamic cultures around the world as incredibly varied living traditions. We will study Islamic political and intellectual history from the "liberal" end of the spectrum through the "ultraconservative" Islamist (and "militant") end of the spectrum, and examine Islamic practices, both early and contemporary, and will also work in our classroom and in area mosques to get to know Muslims themselves, through examining Islamic spirituality, art, culture and family life. (1)

Lecture: 3 hrs./wk.

**RELG 207 Native American Religions**

This course explores the rich diversity of Native American religious practices that existed before first contact, and those that evolved when Christianity began to spread. We will read Native American myths and stories from around the continent and also research individual tribal traditions. We will seek to understand ancient native rituals such as the Sun Dance as well as those movements that arose in response to Christianity such as the peyote cult and Ghost Dance. The course's methodologies include the following: a historical perspective from pre-contact to the modern era; a narrative approach to story cycles at the genre, tribal, and regional level; an anthropological analysis of ritual; finally, a biographical approach will reveal how the many dimensions of Native American religion come together in the life of a significant practitioner. (1)

Lecture: 3 hrs./wk.

**RELG 210 Early Christian Conflicts and Community Life**

A study of the development of Christianity from a Jewish sect in the late first century to the dominant religion of the Roman Empire in the fourth century. (1)

Lecture: 3 hrs./wk.

**RELG 212 The Reformation**

The Protestant Reformation of the 16th century and the Roman Catholic reaction. (1) (Cross-listed as HIST 231)

Lecture: 3 hrs./wk.



**RELG 216 Pauline Christianity**

A study of the Apostle Paul's teachings and the development of his churches through a critical examination of his writings. Particular attention will be given to exploring new scholarly methods of studying early Christianity. (1)

Lecture: 3 hrs./wk.

**RELG 220 Christian Ethics**

An examination of Christian moral values and their relation to the issues of contemporary personal and social life. (1)

Lecture: 3 hrs./wk.

**RELG 221 Atheism & Belief**

An examination of fundamental questions concerning rationality and religious belief. The course addresses questions such as whether it is rational to believe in God and whether we can know anything about God, along with different ways of answering these questions and the different views of reason and religious faith the answers imply. (Cross-listed as PHIL-221) (1)

Lecture: 3 hrs./wk.

**RELG 225 The Religious Life of Young Adults**

An introduction to the faith development of young adults and their psychological and social characteristics. This course will identify and foster communication skills for effectively communicating with adolescents. The role of adult leadership in youth groups will be examined. Finally, the course will consider resources for developing and implementing youth ministry programs in congregations. (1)

Lecture: 3 hrs./wk.

**RELG 231 Religion, Philosophy, and Science**

An examination of the confrontations, compatibilities, and cooperation among religious thought, philosophy, and scientific inquiry. Topics will include philosophical analyses of science, the debates between the natural sciences and Western religion, recent developments in the social sciences, and insights from Eastern religions. (1)

Lecture: 3 hrs./wk.

**RELG 232 Religion and Ecology**

This course aims to discover how religious traditions have responded to the natural world through story, theology, and action. We will focus on Indigenous traditions, three Asian religions (Taoism, Hinduism, and Buddhism) and two Western traditions (Judaism and Christianity). We will explore how these diverse traditions offer both ancient and new perspectives on the ecological crisis and express the hope to reunite us with the earth. Topics will include animals, ecosystems, climate change, and sustainability, etc. (1) (Cross-listed as ENST 232)

Lecture: 3 hrs./wk.

**RELG 235 Religion and Literature**

This class explores the interface between religious ideas and practices and literary form. We will do close readings of a variety of literary works to determine how their forms have adapted to traditional religious ideas. Each unit will begin with an exploration of a religious tradition to familiarize students with the traditions' essential concepts, symbols, and practices. We will then read various works that express these in new ways through literary conventions and analyze how literary techniques specific to poetry, narrative, and film shape these expressions. (1)

Lecture: 3 hrs./wk.

**RELG 241 Religions and Philosophies of China**

An interdisciplinary examination of the philosophical and religious traditions of East Asia. Topics include the central ideas and practices of these traditions, their historical development, their styles of reasoning, and the relationship between religion and philosophy. (1) (Cross-listed as PHIL 241).

Lecture: 3 hrs./wk.

**RELG 243 Indians Gods, Gurus, and Monsters**

An examination of the religious and philosophical traditions of South Asia. Topics include the central ideas of these traditions, their historical development, their styles of reasoning, and the relationship between religion and philosophy. (1) (Cross-listed as PHIL 243).

Lecture: 3 hrs./wk.

**RELG 245 Japanese Religions**

This course examines five Japanese religious and philosophical traditions Shintoism, Shugendo, Confucianism, Taoism, and Buddhism. We will read mythological, philosophical, and literary texts from these traditions such as the Analects of Confucius, the Tao te Ching, Dogen's Shobogenzo, and many others, with special attention given to key concepts, problems in translation, and similarities to or differences from western philosophies. (1)

Lecture: 3 hrs./wk.

**RELG 246 The Holocaust**

An historical account and a religious analysis of the Holocaust, including an examination of theological reactions to this event. (1) (Cross-listed as HIST 246).

Lecture: 3 hrs./wk.

**RELG 250 New Religions in America**

A study of non-traditional religious communities in America, such as the Mormons, New Age, Scientology, and Branch Davidians. (1)

Lecture: 3 hrs./wk.

**RELG 270 Explorations in Religious Traditions**

An exploration of a religious tradition or issue. (1)

Lecture: 3 hrs./wk.

**RELG 282 Augustine and His Legacy**

In this course we read primary texts, discuss and work together orally and in writing on the critical interpretation of the formative Western theology of Augustine of Hippo and investigate its legacy through the time of the Reformation. In the process we reflect on how contemporary thinkers (beginning with ourselves!) appropriate, develop, critique, or extend this classical stance in modern projects of learning, inquiry, practice and/or devotion. (1)

Lecture: 3 hrs./wk.

**RELG 284 Luther and His Legacy**

In this course we read in the primary sources, discuss and work together orally and in writing on the critical interpretation of the Reformation theology of Martin Luther and investigate its legacy through the time of the Reformation. In the process we reflect on how contemporary thinkers (beginning with ourselves!) appropriate, develop, critique, or extend this classical stance in modern projects of learning, inquiry, practice and/or devotion. (1)

Lecture: 3 hrs./wk.

**RELG 286 The Legacy of Modern Theology**

A study of ways Christian theologians responded to the intellectual and cultural challenges of the modern world (1650–the present). (1)

Lecture: 3 hrs./wk.

**RELG 301 Methods and Theories in the Study of Religion**

By comparing early theories of religion, testing classic definitions and concepts, we appreciate and evaluate modern and postmodern methods and theories in religious studies. Along the way we gauge the implications of thinking about religious studies as a distinct subject, but also think reflectively about our role as observers of the world's religions as part of vast landscapes of human experiences and cult. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Previous course in RELG, sophomore standing, or permission.*

**RELG 317 Systematic Theology**

A study of the interrelationships between the main Christian articles of faith in the thought of major 19th and 20th century theologians. (1)

Lecture: 3 hrs./wk.

*Prerequisite: Previous course in RELG, sophomore standing, or permission.*

**RELG 340 Contemporary Christian Studies**

This course will investigate a topic in contemporary Christian Studies chosen by the instructor. (Course may be repeated for credit.) (1)

Lecture: 3 hrs./wk.

*Prerequisite: Previous course in RELG, sophomore standing, or permission.*

### **RELG 370 Issues in Religious Traditions**

A study of an issue within a religious tradition(s) in its historical and cultural context. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Previous course in RELG, sophomore standing, or permission.*

### **RELG 405, 406, 407 Independent Study and Research**

Selected topics in religion carried out under the supervision of the department staff. (1/2, 1, 1/2)

### **RELG 415, 416 Internship**

A supervised placement in a religious congregation, clinical setting, non-profit, or social service agency in which the student would be required to make a practical application of religious and ethical insights. 60 hours for ½ unit, 120 hours for 1 unit. Graded Pass/Fail. (1/2, 1)

### **RELG 491 Seminar in Contemporary Religious Issues**

This capstone course in religion will examine a continuing religious issue. The course is designed to build on previous religious studies skills, while adding a major research component. (1)

Lecture: 3 hrs./wk.

*Prerequisites: Juniors or seniors majoring or minoring in Religious Studies or permission.*

### **RELG 495, 496, 497 Honors Project**

A program of independent study culminating in a paper.

*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **ROANOKE**

*Associate Professor, Leslie Warden, Assistant Vice President for Curriculum and Advising*

Courses in this area provide students with opportunities to explore career options and for individual development through campus and off-campus activities that require application of academic knowledge and skills. These courses will NOT qualify for Intensive Learning credit and are NOT intended to count toward the requirements for any major.

### **ROA 101 The Maroon Difference**

What does it mean to be a Maroon? New students will be integrated into the community of Roanoke College. They will build skills to successfully transition to college life and make connections with peers, faculty, and staff. Students will learn what it means to Live on Purpose and explore self-development. (1/2)

Lecture: 2 hrs./wk.

### **ROA 110 Intentional Living Community Seminar**

A small residential-based seminar that investigates a living community's focus from different disciplinary perspectives. Enrollment limited to members of the particular intentional living community. Critical reflection and civil discourse will be the focus of the course. This course will be graded on a pass-fail basis. May be repeated for credit (1/4).

Lecture: 1.5 hrs./wk.

*Corequisite: Living in a specific intentional living community linked to the course.*

### **ROA 111 Career Explorations**

Students will explore career opportunities from a particular disciplinary perspective, area of interest, or sector of the workforce. Critical reflection and goal setting will be a focus of the course. This course is intended for freshmen and sophomores; interested juniors and seniors should consult with the instructor/advisory group for a particular section. May be repeated once for credit in a different area of interest. (1/2)

Lecture: 1.5 hrs./wk.

### **ROA 112 Pursuing Effective Leadership**

A combination of study, self-reflection, and practical experience on being an effective leader. This course will have a community based learning component and is open to students of all majors. This course will be graded on a pass-fail basis. (1/2)

Lecture: 1.5 hrs./wk.

### **ROA 125 Self, Culture and Civic Responsibility through Service-Learning**

The focus of this service-learning course is on gaining a greater understanding of how students view themselves as members of a diverse community and the responsibilities that come with living in a democratic society. The first half of the semester prepares students to serve on a weeklong Alternative Break trip and the second half of the semester is focused on gaining greater understanding of their service experience. Through direct service, intensive reflection, readings, interviews and a photo journal, students will gain a greater understanding of how they view themselves as a contributing member of society and will learn how they wish to advocate for change in a world of need. (1/2)

Lecture: 1.5 hrs./wk.

*Prerequisites: One semester at Roanoke College, a minimum GPA of 2.0, and instructor approval.*

### **ROA 205 Research Experience**

A supervised research experience typically outside a student's major or multiple disciplinary in content. (1/2)

*Prerequisites: Permission of the instructor and the Associate Dean for Academic Affairs & Student Engagement*

### **ROA 215 Internship Planning and Preparation**

This course introduces students to the process of reaching out into the community to set up and plan an internship. Students will be guided through the process of establishing a plan for their placement and developing a relationship with a supervisor. Students will also learn about professional expectations for behavior and communication. (1/2)

Lecture: 1.5 hrs./wk.

*Prerequisites: At least sophomore status, with a 2.0 or higher GPA.*

### **ROA 216 Internship**

A supervised placement at a work setting providing practical experience in a potential career field that requires application of academic knowledge and skills. These areas may include industry, government agencies, on-campus opportunities, and a variety of private enterprises. (1/2 unit, 60 hours) (This course can be repeated for credit. Student must be enrolled in this course for the semester when the internship takes place.)

*Prerequisites: At the time of the internship, students must have a GPA of at least 2.0. At the start of the internship, students must have completed at least 4 units at Roanoke College. Permission from the Associate Dean for Academic Affairs & Student Engagement.*

### **ROA 218, 219 Digital Storytelling for Global Learning I and II**

These courses are designed for students who study abroad to enhance engagement while abroad and to help process the experience. ROA 218 begins in the latter half of the semester before the study abroad experience to provide a foundation in narrative and cultural identity, intercultural competency, and storytelling. Students will develop short stories exploring their identity and their understanding of self in relation to difference prior to departure. During the semester while studying abroad, students will engage in a local project of community engagement to understand an "other" and create a photo-story of that local person. The students' projects will be supported by online discussion and supplemental writing exercises and readings. The final semester when students return from studying abroad (ROA 219) will focus on reflection of the experience and changes in self-identity through the process of creating a digital story. (0.5, 0.5)

Lecture: 1.5 hrs./wk.

*Prerequisites: Study abroad application submitted for following semester is a prerequisite for ROA 218; ROA 218 is a prerequisite for ROA 219.*

### **ROA 300 Theory and Practice of Research in a Clinical Setting**

This course is for students who are interested in learning clinical research principles and applying them to clinical research projects being conducted in the Emergency Department (ED) setting. The course consists of a lecture

and laboratory component. The lectures will introduce students to basic components of research including the research question, common study designs, methods used to address the research question (i.e. selection of study subjects and setting, data sources and study protocols, data analysis, interpretation and presentation of results) and ethical issues related to research. The laboratory component will provide students with the opportunity to participate in the enrollment and data collection for various clinical research studies presently being conducted in the ED at the Level 1 Trauma Center, Carilion Clinic. (1)

Lecture: 2 hrs./wk.; Laboratory: 8 hrs./wk.

*Prerequisites: Permission of the Associate Dean for Academic Affairs & Student Engagement.*

### **ROA 301 Clinical Research**

This course offers the opportunity for students to expand their participation in the enrollment and data collection for various clinical research studies presently being conducted in the Emergency Department at the Level I Trauma Center, Carilion Clinic. (1)

Laboratory: 8 hrs./wk.

*Prerequisites: ROA 300 and permission of the Associate Dean for Academic Affairs & Student Engagement.*

### **ROA 416 Internship**

A supervised placement at a work setting providing practical experience in a potential career field that requires application of academic knowledge and skills. These areas may include industry, government agencies, on-campus opportunities, non-profit organizations, and a variety of private enterprises. (1 unit, 120 hours.) (This course can be repeated for credit. Student must be enrolled in this course for the semester when the internship takes place.)

*Prerequisites: At time of the internship, students must have a GPA of at least 2.0, and have completed at least 4 units at Roanoke College.*

## **RUSSIAN**

A major in Russian is not offered at Roanoke College.

### **RUSS 101, 102 Elementary Russian I, II**

A study of the fundamentals of Russian with emphasis on pronunciation and oral communication. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

### **RUSS 201, 202 Intermediate Russian I, II**

A comprehensive study of the grammar; in-depth development of listening, speaking, reading and writing skills; cultural component included. (1, 1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: RUSS 101-102 or permission.*

### **RUSS 306 Advanced Studies in Russian**

Guided independent learning to continue the acquisition of Russian and the study of culture beyond the 202 level. (1)

Lecture: 3 hrs./wk.; Laboratory/Studio: 2.5 hrs./wk.

*Prerequisite: RUSS 202.*

## **SCREEN STUDIES**

*Professor Wendy Larson-Harris; Associate Professor Srikanth Mallavarapu; Adjunct Faculty Joe Boucher*

In the Screen Studies program students will learn about the history of film, television, and related digital media technologies grounded in what has been done in a variety of historical and cultural contexts, to help them envision how they want to tell their stories and create their own work. Students will learn to work in front of and behind the camera through acting, design, writing, editing, directing, production, and distribution. Students will develop critical job skills including the use of technology and collaborative work in studio courses, in addition to

internship opportunities. In the Digital Media Capstone students will bring a project from conception to completion and leave the program with a sample of original work to share with employers.

The English and Communication Studies Department at Roanoke College houses four majors: Communication Studies, Creative Writing, Literary Studies, and Screen Studies. See separate listings under Communication Studies, Creative Writing, Literary Studies, and Screen Studies for the requirements for the majors and minors in these fields.

The Screen Studies major requires 10 units of work as described below:

**Core Requirements – six units:**

SCRN 210	Digital Media Production
SCRN 256	Foundations in Film
SCRN 310	Advanced Digital Media Production
SCRN 319	Screenwriting
SCRN 356	Studies in Film
SCRN 410	Digital Media Capstone

**Electives – four units (no more than 2 from a prefix):**

SCRN 399	Special Topics
SCRN 405 /406	Independent Study
SCRN 416	Internship
SCRN 496	Honors in the Major
ART 131	Photography I
ART 231	Photography II
ART 331	Photography III
BUAD 233	Principles of Marketing
COMM 202	Mass Media
COMM 319	Writing for Media
CRWR 215	Creative Writing-Fiction
THEA 112	Acting I
THEA 212	Acting II
THEA 225	Scene Design
THEA 275	Costume Construction

**Minor in Screen Studies**

A minor in Screen Studies requires six units, including SCRN 256, SCRN 210, and SCRN 310 and three electives from list above.

**SCRN 210 Digital Media Production**

Students will develop competencies in A/V equipment operation and computer-based editing, and learn to understand and effectively communicate audio/visual messages through the production norms associated with journalism, advertising/public relations, entertainment, as well as other creative genres. (1)

Lecture: 3 hrs./wk.

**SCRN 256 Foundations in Film**

Critical study of selected films drawn from a variety of periods and national cinemas. The course will focus on the elements of film and how directors use these elements to achieve their effects and make their meanings. Works will be placed within the history of cinema, allowing attention to how the elements of film art have developed over time. (1) (Cross-listed as ENGL 256)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

**SCRN 310 Advanced Digital Media Production**

Continued development in digital media creation, production, and distribution, with additional attention to television studio processes. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SCRN 210 or permission.*

### **SCRN 319 Screenwriting**

Introduction to the elements of writing for the screen, including format, character development, dialogue, narrative structure. (1) (Cross-listed as CRWR 319)

Lecture: 3 hrs./wk.

### **SCRN 356 Studies in Film**

Critical study of selected films. The course may focus upon a particular theme, genre, or set of filmmakers. Films will be placed in relation to social and historical movements and to current critical issues. May be repeated for credit. (1) (Cross-listed as ENGL 356)

Lecture: 3 hrs./wk.; Laboratory: 3 hrs./wk.

*Prerequisite: SCRN 256 or permission.*

### **SCRN 399 Special Topics**

A concentrated study of a topic or issue related to the field of Screen Studies. May be repeated for credit. (1)

Lecture: 3 hrs./wk.

*Prerequisites: SCRN 210, SCRN 256 or permission.*

### **SCRN 405, 406, 407 Independent Study**

Guided in-depth study of a film studies topic or creative project. (1/2, 1, 1/2)

*Prerequisites: SCRN 210 and SCRN/ENGL 256 and permission of faculty supervisor.*

### **SCRN 416 Internship**

Experience in a field of applied digital media creation production, with approval and supervision of the faculty supervisor. (1)

*Prerequisite: SCRN 210, SCRN 310 and permission of faculty supervisor.*

### **SCRN 456 Digital Media Capstone**

A project-based course allowing advanced students to develop an original work to demonstrate their ability to understand and apply the principles of film production. (1)

Lecture: 3 hrs./wk.

*Prerequisites: SCRN 210, SCRN 256, SCRN 310, and SCRN 319 or permission.*

### **SCRN 495, 496, 497 Honors Project**

A program of independent study culminating in a substantial project of scholarship or creative work. (1/2, 1, 1/2)

*Prerequisite: SCRN 210, 256, 310, 319, and 356. To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. Screen Studies 495 Honors Project is prerequisite for 497 Honors Project.*

## **SOCIAL STUDIES EDUCATION**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

## **SOCIOLOGY**

*Professors Marit Berntson, Kristi Hoffman, Chad Morris (Chair), Daniel Sarabia; Associate Professors Shannon Anderson, Meeta Mehrotra, Kristen Rapp; Assistant Professor Kimberly Garza; Lecturers Kristin Richardson*

A major in sociology requires a minimum of 11 units, including:

SOCI 101	Introduction to Sociology
SOCI 201	Social Inequality
SOCI 350	Social Theory
SOCI 351	Qualitative Methods and Analysis
SOCI 352	Quantitative Methods and Analysis
SOCI 454	Senior Seminar

Five additional units in sociology, at least three of which must be at or above the 300 level. Sociology 416 (Community Internship) may not be used to satisfy this requirement.

One INQ/HNRS 260SO may count as a 200-level elective. SOCI 101 and SOCI 201 are the minimal prerequisite to SOCI 350, 351, and 352. It is recommended that students take SOCI 350 before taking SOCI 351 or 352. The completion of all required core courses, and senior status are prerequisites to SOCI 454. Students majoring in sociology are encouraged to begin SOCI 350, 351, and/or 352 in the sophomore year.

Three of the following Anthropology courses may count as electives in the major (but only one 300-level ANTH course): ANTH 101, ANTH 212, ANTH 261, ANTH 310, ANTH 361, ANTH 380, ANTH 405 & 407, ANTH 406, and ANTH 416.

Three Public Health Studies courses may count as electives in the major (only one 200-level PHST course).

### **Minor in Sociology**

A minor in sociology requires six units in Sociology, including: SOCI 101; SOCI 201; SOCI 351 or SOCI 352 (or any other social science methods course such as CJUS/I.R./POLI 209, PSYC 202 or PHST 301); and three additional units in Sociology, with at least one at the 300 level or above (excluding 416). One INQ/HNRS 260SO may count as a 200-level elective. Two of the following Anthropology courses may count as electives in the minor ANTH 101, ANTH 212, ANTH 261, ANTH 310, ANTH 361, ANTH 380, ANTH 405 & 407, ANTH 406, and ANTH 416. Two Public Health Studies courses may count as electives in the minor (only one 200-level PHST course; only one elective if PHST 301 substitutes for the SOCI methods course).

### **Concentration in Crime, Deviance, and Social Control**

*Professor Kristi Hoffman; Lecturer Kristin Richardson, Coordinators*

A concentration in Crime, Deviance, and Social Control offers students the opportunity for focused study on the behaviors designated by societies as deviant and criminal as well as methods and forms of control used to manage these behaviors. In this interdisciplinary concentration, students will examine crime deviance, law enforcement, legal systems, and corrections from a variety of perspectives. In addition, students will gain a better understanding of offenders and their motives, as well as critique society's efforts to control deviance and crime. This interdisciplinary concentration requires six units incorporating three disciplines: Sociology, Criminal Justice, and Psychology.

**This concentration requires 6 units:**

- 1) SOCI/CJUS 240:** Inequality in Criminal Justice
- 2) Sociology - Select one course**
  - SOCI 237: Deviant Behavior
  - SOCI 238: Juvenile Delinquency
  - SOCI 334: CriminologyNote: See the catalog listing for SOCI 334 for additional prerequisites.
- 3) Criminal Justice – Select one course**
  - CJUS 211: Criminal Justice



CJUS 231: Juvenile Justice  
CJUS 325: Comparative Law Enforcement  
CJUS/SOCI 326: Comparative Corrections  
Note: See the catalog listing for CJUS/SOCI 326 for additional prerequisites.

**4) Psychology – Select one course**

PSYC 332: Drugs and Behavior  
PSYC 381: Abnormal Psychology

Note See the catalog listing for additional prerequisites for both of these courses.

**5) Electives –** Two units chosen from those listed above or from Selected Topics, HNRS, or INQ courses, Independent Studies, Internships or Honors in the major, as approved by the coordinator.

**SOCI 101 Introduction to Sociology**

An introduction to the field of sociology with an emphasis on the study of social groups and how they influence human behavior and society. (1)

Lecture: 3 hrs./wk.

**SOCI 201 Social Inequality**

This course will introduce students to the basic concepts, theoretical frameworks, and research methods employed in a sociological approach to the study of social inequality. We will explore the many facets and forms of social inequality, as well as think about how social inequalities are perpetuated by political, economic, cultural, and other social and structural forces. This course places special emphasis on the development of students' critical thinking skills and ability to apply core concepts and theoretical frameworks to understand contemporary forms of social inequality in both local and global contexts. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 101, ENST 105, or INQ/HNRS 260SO*

**SOCI 202 Global Health and Culture**

This course uses anthropology, sociology and public health to provide an introduction to global health. The primary course goal is to gain a strong understanding of how multiple cultural, social, economic, environmental and political factors affect health differently in different parts of the world. You will learn about interventions to help people around the world live longer, healthier lives. (1) (Cross listed with ANTH 202 and PHST 202)

Lecture: 3 hrs./wk.

**SOCI 215 Social Movements**

Study of the social and political context of social movements. Topics include conditions hindering or facilitating movements, organization, participation and recruitment, framing, tactics and strategies, influence of the state and other movements, and social change. (1)

Lecture: 3 hrs./wk.

**SOCI 224 Race and Ethnicity**

A study of racial, religious, and nationality minority groups in the United States. Topics include prejudice, racism, and discrimination; immigration and assimilation; and current public policy issues. (1)

Lecture: 3 hrs./wk.

**SOCI 226 Intimate, Marital, and Family Relationships**

An analysis of intimate, marital, and family interaction patterns in contemporary American society, with a focus on the social institutions and structures that shape them. Topics include courtship and dating, cohabitation, selection of long-term partners and issues related to marital and parent-child relationships. Multiple family structures such as nuclear families, egalitarian marriages, gay and lesbian relationships, single parenting, and stepfamilies are examined. (1)

Lecture: 3 hrs./wk.

**SOCI 229 Sociology of Sex and Gender**

An introduction to a critical approach to examining the social construction of sex, gender, and sexuality. Topics of study include classical and current perspectives on sex, gender, and sexuality; significant emphasis on the social construction of gender inequality; and the role of social institutions such as family, work, the economy, and media in shaping multiple experiences of gender and gender relations in society. Attention is also given to heterosexism and other systems of inequality dealing with sexuality. (1)

Lecture: 3 hrs./wk.

**SOCI 236 Popular Culture**

An analysis of popular culture as a reflection of society, a factor in socialization, and an economic institution. Topics include popular music, television and films, comics and cartoons, and sports and games. (1)

Lecture: 3 hrs./wk.

**SOCI 237 Deviant Behavior**

An examination of the concept of deviance and the various sociological perspectives on deviant behavior. Sociological, biological, and psychological theories of causation are used to study behaviors such as drug addiction and alcoholism, deviant sexual behavior, and mental illness. (1)

Lecture: 3 hrs./wk.

**SOCI 238 Juvenile Delinquency**

An analysis of the nature and types of juvenile offenses, sociological theories of delinquency and causation, and an examination of the juvenile justice system. (1)

Lecture: 3 hrs./wk.

**SOCI 240 Inequality in Criminal Justice**

This course approaches the topic of criminal justice with an intersectional lens in which race, gender, class, and sexuality are analyzed as integral parts of the social construction of “criminality”. We will explore the ways in which these social statuses are impacted by and through the criminal justice system. (1) (Cross-listed with CJUS-240)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 101, CJUS 211 or INQ 260SO or permission.*

**SOCI 241 Introduction to Social Welfare**

Analysis of the historical development, structure, and functions of contemporary social welfare agencies. Observation of local agencies. (1)

Lecture: 3 hrs./wk.

**SOCI 260, 261 Selected Topics in Sociology**

An examination of special topics in sociology, with topics selected on the basis of faculty and student interest. (1/2, 1)

Lecture: 3 hrs./wk.

**SOCI 275 Public Health & Social Justice**

This course will explore questions of public health and social justice with an emphasis on health equity given ongoing evidence of disparities rooted in the social world. We will carefully consider the notion of justice and how concerns about just distribution may be elided in a strongly individualistic culture. (1)

Lecture: 3 hrs./wk.

**SOCI 315 Political Sociology**

An analysis of power, politics, the state, and international entities from a sociological perspective. Topics include power and authority, political and economic systems, inequality, political parties, social movements, nation-states, and globalization. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One 200-level SOCI course or permission.*

**SOCI 320 Education and Society**

An exploration of social issues related to education in the United States from a sociological perspective focusing in the social context of educational settings, key social-structural forces, and how social inequality affects opportunities and experiences in schools. Specific topics include interaction patterns among teachers and students, academic cheating, harassment and violence, and the influence of family, community, cultural and politics on schools. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One SOCI course or permission.*

### **SOCI 325 Medical Sociology**

This course will provide an in-depth introduction to the major conceptual frameworks of medical sociology and empirical research examining the social context of health, illness, and healing, as well as the organization and delivery of medical care and health care. The course challenges the notion that health outcomes are the product of “personal choices” alone and investigates the impacts of social and institutional variables on health behavior, with particular focus given to inequalities and social determinants of health. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One 200-level SOCI course or permission.*

### **SOCI 326 Comparative Corrections**

An exploration of philosophies, rationales, and models of adult corrections. Historical and existing correctional systems in select countries, e.g., the U.S., Canada, England, France, Japan, Mexico, Sweden, and the former U.S.S.R. will be examined. (1) (Cross-listed as CJUS 326).

Lecture: 3 hrs./wk.

*Prerequisite: CJUS 211 or 200-level SOCI course or permission.*

### **SOCI 329 Global Perspectives on Family**

Family is often defined as a cultural universal; that is, it is an institution found in almost all societies, yet the forms it takes, its impact on the individual and society, and its relationships with other social institutions vary. This course takes comparative and transnational approaches to understand the diversity in family patterns and practices and how these are gendered around the world. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One 200-level SOCI course or ANTH 101 or permission.*

### **SOCI 331 Environmental Public Health**

Of concern to any society is the health of its people. The connections between human health, environmental degradation, and the built environment is the focus of this course. From a social science perspective, we will study the social and physical environmental determinants of health that contribute to unequal outcomes. The social production of environmental health risks and community responses to environmental threats and health problems will be examined. The course draws on the subfields of medical and environmental sociology to explore environmental health problems and their link to environmental justice concerns. (Cross-listed with PHST 331). (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level SOCI course or PHST 201 or ENST 105 or permission.*

### **SOCI 334 Criminology**

An analysis of the social causes of crime and criminal behavior with a focus on drug, property, white collar and violent crime. Theoretical explanations of criminal behavior and a critique of selected aspects of the American criminal justice system are discussed. Programs for crime prevention and rehabilitation are examined. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 101 or CJUS 211 or INQ 260SO and one 200-level SOCI course or permission.*

### **SOCI 335 Global Population Problems**

An analysis of population structure and dynamics as influenced by cultural, political, economic, and environmental factors. This course focuses attention to the social determinants of population problems, while exploring their consequences and policy implications for individuals, their societies, and the world. (1)

Lecture: 3 hrs./wk.

*Prerequisite: One 200-level SOCI course or ENST 105 or permission.*

### **SOCI 337 Environmental Sociology**

An examination of the interrelationships between societies and their environments, and an analysis of sociological aspects of environmental problems. This course will focus on the population and organizational aspects of environmental problems as well as elements of social change involved with environmental social action. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level SOCI course or ENST 105 or permission.*

### **SOCI 338 Women's Lives Around the World: Global Perspectives**

In this course, we will examine similarities as well as divergences in the experiences of various groups of women, especially in countries that are part of the “developing” world. The course will begin with an analysis of the notion of global sisterhood and its criticisms. We will then move on to specific issues such as work, family and household, representations in media, and violence. We will end the semester with an evaluation of the possibilities of and opportunities for transnational movements for gender equality. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level SOCI course or permission.*

### **SOCI 340 Crowds, Panics, and Disasters**

An analysis of emergent, comparatively unstructured, and spontaneous collectivities and social processes within societies. The course gives special attention to social behavior during normative breakdowns, crisis situations, and periods of dissent. Group behavior during riots and disasters is examined, along with the dynamics of panics and rumor. (1)

Lecture: 3 hrs./wk.

*Prerequisites: One 200-level SOCI course or ENST 105 or permission.*

### **SOCI 350 Social Theory**

An examination of the enduring influences of social theorists – notably Durkheim, Marx, and Weber – on the development of sociological knowledge and practice. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 201 or permission.*

### **SOCI 351 Qualitative Methods and Analysis**

This course will address the social scientific research process including an examination of research ethics, theory, and research design. Methods addressed include and are not limited to field methods, (e.g. ethnography and participant observation), intensive interviewing, focus groups, and unobtrusive research methods. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 101 or ANTH 101 or ENST 105 or permission. SOCI 350 is recommended.*

### **SOCI 352 Quantitative Methods and Analysis**

This course will address the social scientific research process including an examination of research design, sampling and data analysis. Methods addressed include but are not limited to survey research and secondary data analysis. This course includes an introduction to descriptive and inferential analysis of data, including analysis using statistical computer software programs. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SOCI 101 or ENST 105 or permission. SOCI 350 is recommended*

### **SOCI 360, 361 Selected Topics in Sociology**

An examination of special topics in sociology, with topics selected on the basis of faculty and student interest. (1/2, 1)

Lecture: 3 hrs./wk.

*Prerequisite: One 200-level SOCI course or permission*

### **SOCI 395, 396 Henry H. Fowler Public Policy Seminar**

A seminar taught with a scholar-statesperson that deals with a policy issue of public significance. (Made possible by the Henry H. Fowler Endowment. Open to selected students with department permission.) (1, 1/2)

#### **SOCI 405, 406, 407 Independent Study and Research**

A supervised research project or extensive literature review. (1/2, 1, 1/2)

*Prerequisite: Written proposal approved by the department.*

#### **SOCI 416 Community Internship**

Practical experience in a social service agency, correctional facility, health institution, business, or other community setting in which sociology is applied. Students present their findings to a college audience. May not be used to fulfill the 300-level or above requirement for the major or minor. (1)

*Prerequisite: Written proposal approved by the department.*

#### **SOCI 454 Senior Seminar**

A capstone course for the sociology major that includes an in-depth review and analysis of major themes within sociology. Requires completion of a qualitative and/or quantitative research project. (1)

*Prerequisite: SOCI 350, 351, and 352 and senior status.*

#### **SOCI 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisites: To qualify for consideration to receive honors in the major, a student must be in the senior year or in the summer prior to the senior year and must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **SPANISH**

*Professors Dolores Flores-Silva, Lynn Talbot; Associate Professor José F. Bañuelos-Montes (Chair); Assistant Professor Ian Michalski; Lecturers Teresa Hancock-Parmer, Sarah Hord, Iris Myers, Christine Stanley*

The Bachelor of Arts in Spanish is a liberal arts program that develops communication skills and cultural understanding of Spanish-speaking societies. The major takes students on a historical and linguistic voyage through Spanish speaking countries to understand the influences that continue to shape them. In our globalized culture, being bilingual is an asset to careers in business, health and community services, education, law and the arts. The program is appropriate for those acquiring Spanish as a secondary language, heritage learners and native speakers.

Incoming students who wish to study Spanish are required to take the Spanish language placement test, the results of which determine the appropriate starting point in the Spanish program. Many Spanish majors begin the program with SPAN 202 or SPAN 303. Most Spanish heritage learners begin with SPAN 306 and native Spanish speakers with courses numbered above SPAN 306. Regardless of where one begins the major, 11 credits selected from other required courses and electives are needed for program completion.

*A minimum grade point average (GPA) of 2.0 overall and 2.0 in Modern Languages courses is required to declare a major in Spanish.*

A major must complete at least one one-unit course in Spanish during the senior year. It is recommended the students take two 300-level units taught in Spanish before or concurrent with enrolling in a Spanish literature course. It is highly recommended that all majors planning to teach take Spanish 341 as an elective which will satisfy a requirement in the Spanish Education major. Students can take one of the following courses taught in English that can count as an elective toward the major. HIST 272, HIST 273, POLI 225, LING 320 or another appropriately themed course approved by the Modern Languages department chair.

Majors are required to complete a departmentally approved course of study abroad. Appropriate periods of study include an Intensive Learning or May Term travel course, or a summer semester, or year abroad with a department-approved program such as ISEP or another university-sponsored program. Students who are unable to study abroad can appeal to the Modern Languages department chair and work with their advisor to develop an alternative plan to satisfy this requirement.

### **Spanish major courses:**

#### **Foundational Language courses: 0-3 units (determined by the results of the Spanish Language Placement Test)**

SPAN 202	Intermediate Spanish II
SPAN 303	Spanish for Writers Expressions <i>and</i>
SPAN 304	Spanish for Oral Communication (not open to qualified heritage speakers) <i>or</i>
SPAN 306	Spanish as a Heritage Language (for qualified heritage speakers)

#### **Cultural Perspectives: 2 units**

SPAN 311	Spanish Civilization and its Plural Nationalities
SPAN 312	Latin America and its Native and Hybrid Cultures

#### **Literary Perspectives: 2 units**

SPAN 320	Literary Perspectives: Spain
SPAN 323	Literary Perspectives: Latin America

#### **Advanced Language: 2 units**

SPAN 335	The Sounds of Spanish
SPAN 401	Advanced Conversation and Grammar Review

#### **Senior Capstone: 1 unit**

SPAN 450	Seminar
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#### **Electives: 1-4 units of any 300-400 SPAN courses to reach a total of 11 units**

### **Minor in Spanish**

A minor in Spanish consists of six units, including: SPAN 201 and 202, or two electives, SPAN 303 and 304 or SPAN 306, SPAN 311 or 312 or 315 and 1 to 4 elective units of any 300-400 SPAN courses above SPAN 306 to reach a total of 6 units. Qualified native Spanish speakers will complete the program with six courses above SPAN 306 that includes SPAN 311 or 312 or 315. A period of study abroad is highly recommended.

### **Spanish Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

### **Concentration in Spanish for the Global Professions and Translation**

The concentration in Spanish for the Global Professions and Translation is designed for students who wish to study Spanish language and culture for specific professional purposes. It is designed to develop language and cross-cultural skills appropriate to different areas and contexts of the Spanish-speaking world in the U.S. and abroad. Students must complete a total of six units: 0-2 units from 303, 304, or 306 (depending on the results of the Spanish Language Placement Test); SPAN 330 or 332; SPAN 381; and Spanish elective courses to reach a total of six units.

#### **Foundational Language Courses: 0-2 units (determined by the results of the Spanish Language Placement Test)**

SPAN 303	Spanish for Written Expression (Prerequisite: SPAN 202 or equivalent) and
SPAN 304	Spanish for Oral Communication (Prerequisite: SPAN 202 or equivalent; not open to qualified heritage speakers) or
SPAN 306	Spanish as a Heritage Language (for qualified heritage speakers)

Note: Spanish 303 and 304 or SPAN 306 or the equivalent are the prerequisites for 300 and 400 level SPAN courses.

#### **Spanish for the Professions: 1 unit**

SPAN 330	Spanish for Business <i>or</i>
SPAN 332	Spanish for Healthcare

#### **Spanish Translation: 1 unit**

SPAN 381	Translation
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#### **Spanish Electives 2-4 units of any of the classes below to reach a total of 6 units**

SPAN 311	Spanish Civilization and its Plural Nationalities
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SPAN 312	Latin America and its Native and Hybrid Culture
SPAN 315	Contemporary Issues: Latin America
SPAN 330 or 332 if not used above	
SPAN 335	The Sounds of Spanish
SPAN 338	Second Language Learning: Deciphering Myths from Facts
SPAN 380	Special Topics in Hispanic Life and Culture
SPAN 401	Advanced Conversation and Grammar Review
SPAN 405/406/407	Independent Study
SPAN 417	International Practicum

### **SPAN 101, 102 Elementary Spanish I, II**

A study of the essentials of Spanish grammar and basic vocabulary to promote speaking, listening, reading, and writing skills. Emphasis on developing the conversational skills and cultural awareness to handle topics of everyday life in Spanish. (1, 1)

Lecture: 3 hrs./wk. for each; Laboratory: 1 hr./wk. for each.

### **SPAN 150 Elementary Spanish Review**

A one-semester review of the essentials of Spanish grammar and basic vocabulary to promote speaking, listening, reading, and writing skills. Emphasis on developing conversational skills and cultural awareness to handle topics of everyday life in Spanish. (This course is designed for students who have studied Spanish previously, but lack sufficient preparation to enter Intermediate Spanish 201.) (1)

Lecture: 3 hrs./wk.; Laboratory: 1 hr./wk.

*Prerequisite: SPAN 101 or the equivalent. Credit cannot be received for both SPAN 102 and SPAN 150.*

### **SPAN 201, 202 Intermediate Spanish I, II**

A review of the essentials of Spanish grammar with the introduction of advanced structures. Continued development of the four essential skills, and further acquisition of vocabulary. Emphasis on conversational skills to handle situations of everyday life with increased range of personal expression. Inclusion of cultural material. (1, 1)

Lecture: 3 hrs./wk. for each; Laboratory: 1 hr./wk. for each.

*Prerequisite: No prerequisite, but previous study of a modern language is recommended. (For any course above the 202 level, 201-202 or the equivalent is a prerequisite.)*

### **SPAN 303 Spanish for Written Expression**

Practice in written expression with an intensive review of Spanish grammar. Introduction to the principles of Spanish style and techniques of formal writing and translation. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 202 or equivalent.*

### **SPAN 304 Spanish for Oral Communication**

Practice in oral self-expression and listening comprehension. (This course is for non-native speakers of Spanish.) (1)

Lecture: 3 hrs./wk.; Laboratory work.

*Prerequisite: SPAN 202 or permission.*

### **SPAN 306 Spanish as a Heritage Language**

A course intended for Latin heritage speakers that builds on existing language proficiency to further develop spoken and written communication with a variety of audiences for personal, social academic, and professional purposes. (1)

Lecture: 3 hrs./wk.; Laboratory work.

*Prerequisite: SPAN 202 or permission.*

### **SPAN 311 Spanish Civilization and its Plural Nationalities**

The civilization and cultural development of Spain. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 312 Latin America and its Native and Hybrid Cultures**

An overview of the historical and cultural development of Spanish America from its pre-Colombian roots through the colonial era and up to contemporary times. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 315 Contemporary Issues: Latin America**

A survey of current political, economic, and cultural issues that are regional and global in scope. (1)

Lecture: 3 hrs./wk.; Laboratory work.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 320 Literary Perspectives: Spain**

A study of literary works by major Spanish writers from medieval through contemporary times with a careful consideration of contexts and analysis of literary style. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission. Completion of SPAN 311 is recommended.*

### **SPAN 323 Literary Perspectives: Latin America**

A study of literary works by major Spanish-American writers from the colonial era through contemporary times with a careful consideration of contexts and an analysis of literary style. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 330 Spanish for Business**

Fundamentals of practical commercial Spanish, effective reports and letters applicable to business usage, as well as the language of advertising, foreign trade, transportation, banking, and finance. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 332 Spanish for Healthcare**

Students will be introduced to the vocabulary of health professions as well as to the origin of Latin American culture and Indigenous customs and their medical practices in the United States. Emphasis will be placed on allowing students to work with real world situations in the treatment of disease as we engage directly with medical professionals. Students will also learn about the different healthcare systems in Latin America in order to compare them with those in the United States. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 334 Introduction to Hispanic Linguistics**

This course is an introduction to the basic linguistic issues concerning the Spanish language. It introduces students to the study of the Spanish sound system (phonetics and phonology), formation of words (morphology), sentence structure (syntax), as well as the evolution of the different Spanish varieties (historic, regional, and social). (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 335 The Sounds of Spanish**

The theory and practice of pronunciation. A systematic analysis of the sounds of Spanish. Stress and intonation patterns of Spanish speech through phonetics transcription and intensive oral practice. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 338 Second Language Learning: Deciphering Myths from Facts**

How do people learn a second language? Is there an age limit for second language learning? Can you really learn a language in the classroom as opposed to the “real world”? This course is designed as an introduction to both the theory and practice of second language acquisition (SLA). The course will explore questions like those presented above to decipher the myths from the facts of language acquisition and students will apply their knowledge by creating an original research design within the field of SLA. (1)



Lecture: 3 hrs./wk.

### **SPAN 340 Area Studies in Latin America**

Focused and in-depth cultural studies on selected regions of Latin America. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

May be repeated for credit with different content.

### **SPAN 341 Methods of Teaching Foreign Languages**

An evaluative study of language teaching methods. Development of teaching aids and a teacher's resource book. PreK-12 levels of instruction will be presented. Assignments will be completed in Spanish. (1) (Cross-listed as LANG 341) Taught in English.

Lecture: 3 hrs./wk.

### **SPAN 380 Special Topics in Hispanic Life and Culture**

Class study of a special topic, with topic to be determined by the students and the faculty member. May be repeated for credit with different content. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 381 Translation and Interpretation**

Introduction to the field of professional translation and interpretation focusing on theoretical and methodological issues. Emphasis is placed on conventions, techniques, problems and best practices in translation and interpretation both from Spanish into English and from English into Spanish. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 401 Advanced Conversation and Grammar Review**

An intensive course to further develop oral skills through directed conversations and discussion of readings and to review and enhance grammar knowledge. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 303 and 304 or 306 or permission.*

### **SPAN 405, 406 Independent Study**

Guided reading and research of a particular facet of the Spanish or Latin-American language, literature, and culture. (1/2, 1)

*Prerequisite: Permission of the instructor.*

### **SPAN 416 Internship**

Field placement providing the student with practical experience in work areas in which Spanish is applied. These areas may include embassies, government service, international business, education, industry, and the communications media. (1) (Cross-listed as LANG 416) May be conducted in Spanish or English.

Lecture: 3 hrs./wk.

### **SPAN 417 International Practicum**

A Practicum abroad in a Spanish speaking country in order to gain professional experience in an area related to career interests. It is designed to improve Spanish language proficiency and further develop intercultural competence. Graded Pass/Fail. (1)

*Prerequisite: At least 3 Spanish courses at the 300 level and permission of the instructor.*

### **SPAN 450 Seminar**

A research seminar that involves advanced study of a specific topic in a seminar format. Requires a major research component. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPAN 320 and 323 or permission.*

### **SPAN 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **SPORTS ANALYTICS**

*Professor Roland Minton, Coordinator*

A major in Sports Analytics is not offered. A concentration in sports analytics requires the completion of 6 units with an average cumulative GPA of 2.0 or higher.

### **Required Courses (4 units):**

CPSC 120	Programming
SPMT 190	Introduction to Sport Management
ROA 205	Research Experience (or equivalent 0.5 disciplinary research project approved by the coordinator)
ROA 216	Internship (or equivalent 0.5 unit disciplinary internship approved by the coordinator)
STAT 220	Statistical Methods II

### **Elective Courses (Choose 2)**

CPSC 250	Data Structures and Algorithms
CPSC 370	Data Mining
CPSC 470	Senior Project (pending approval of the coordinator)
SPMT 313	Sports Marketing
SPMT 320	Behavioral Perspectives in Sport
SPMT 406	Independent Study or Research (pending approval of the coordinator)
STAT 301	Mathematical Statistics
STAT 304	Applied Regression Analysis
STAT 406	Independent Study and Research (pending approval of the coordinator)

*Note that STAT 210, INQ 240, or HNRS 240 is prerequisite to STAT 220; CPSC 170 is prerequisite to both CPSC 250 and CPSC 370.*

## **SPORT MANAGEMENT MAJOR**

*Associate Professor K.C. Mayer (coordinator) and Assistant Professor Olzhas Taniyev*

For a Bachelor of Science degree with a major in Sport Management the following units of work are required in the areas of Sport Management (SPMT), Health and Exercise Science (HEXS), Business Administration (BUAD) and Economics (ECON).

### **Required courses include:**

SPMT 190	Introduction to Sport Management
SPMT 210	Funding and Resources of Sport
SPMT 215	Sport Law & Governance
SPMT 225	Sales and Revenue Generation in Sport
SPMT 313	Sport Marketing
SPMT 320	Behavioral Perspective in Sport
SPMT 412	Capstone: Advanced Principles and Practice of Sport Management
SPMT 416	Internship OR a full unit of SPMT 415 and SPMT 417 Internship (.5 unit each)
HEXS 223	Introduction to Emergency Care or competency completed through American Red Cross Certification
BUAD 205	Accounting for Decision Making
BUAD 254	Organizational Behavior Management

ECON 121 Principles, Micro

Additionally, students must complete two units, one unit from available Group 1 courses, and one unit from available Group 2 courses.

**Group 1 Courses (must complete one full unit in this Bracket):**

BUAD 233 Marketing Management  
COMM 101 Introduction to Communication Studies  
HEXS 195 Introduction to Health & Exercise Science (1/2 unit) ★  
SPMT 201 Sport Community and Recreation  
SPMT 206 (1 unit) Independent Study/Research OR 1 unit combined of: SPMT 205 (.5 unit)  
Independent Study/Research & SPMT 207 (.5 unit) Independent Study/Researchs

**Group 2 courses (must complete one full unit in this Bracket)**

BUAD 343 Buying Behavior  
BUAD 364 Team Dynamics  
COMM 250 Communication Theory  
HEXS 208 Exercise Testing & Prescription  
HEXS 301 Personal & Community Health  
HEXS 315 Behavior Perspectives in Exercise Science  
SPMT 208 Administration of Athletic Programs  
SPMT 302 Special Topics in Sport Management  
SPMT 303 Sport Technology & Creativity  
SPMT 406 (1 unit) Independent Study/Research OR 1 unit combined of: SPMT 405 (.5 unit)  
Independent Study/Research & SPMT 407 (.5 unit) Independent Study/Researchs  
SPMT 496 (1 unit) Honors in Major OR 1 unit combined of: SPMT 495 & SPMT 497 (.5 unit each)  
Honors in Majors#

\$= No more than 1 unit of Independent Study/Honors in the Major can count toward credit for the major.

\*= HEXS 195 requires completion of SPMT 205/207 to fulfill Bracket 1 unit and continued exploration OR use as an elective with a .5 unit of Independent Study.

#= Honors in Major requires 3.4 GPA in the major and Senior Standing of 25 units completed

%= If CPR and First Aid Certification Competency is completed elsewhere, the required program units become 13.0

**SPMT 190 Introduction to Sport Management**

This course is designed to introduce students to the sport industry, through an overview of selected sport management sites, functions, terminology, unique characteristics of sport, and challenges of sport management professionals. (1)  
Lecture: 3 hrs./wk.

**SPMT 201 Sport Community and Recreation**

This course is designed for future sport management professionals to learn and apply a variety of programmatic principles involved in managing community sport through fitness and physical activity facilities, recreation programs, outdoor spaces, and community-based youth and adult sport programs. (1)  
Lecture: 3 hrs./wk.

**SPMT 205, 206, 207 Independent Study or Research**

A program of intensive study and/or research in sport management under the guidance of departmental staff. (Admission with recommendation of the directing professor and approval of the department chair.) (.5, 1, .5)

**SPMT 208 Administration of Athletic Programs**

This course provides students with an overview of roles, personnel, and programs of administering athletic programs, with an emphasis on communication skills related to administering sport. An emphasis will be placed on the intercollegiate/non-profit sector of sport, and having a better understanding of this area and of certain sport administrators. (1)  
Lecture: 3 hrs./wk.

**SPMT 210 Funding and Resources of Sport**

This course provides insight into the economics of sports and examines the financial tools and funding structures that managers use to run the sport enterprise. Emphasis is placed on exploration of traditional and innovative methods of revenue acquisition, and funding and planning strategies in sport organizations.  
Lecture: 3 hrs./wk.

**SPMT 215 Sport Law & Governance**

This course presents a comprehensive overview of the law and governance as it applies to sport. Fundamental legal principles and governance structures that directly affect the actions and activities of sports professionals are introduced, as well as application of those principles to a variety of functions pertinent to sport settings. (1)

Lecture: 3 hrs./wk.

**SPMT 225 Sales and Revenue Generation in Sport**

This course introduces students to the essential concepts of ticket sales and sponsorship in the sport industry. Students will learn about and analyze varied sources of sport organization revenue streams. Emphasis is placed on sport ticket sales/sponsorship training exercises, skills, and service. (1)

Lecture: 3 hrs./wk.

**SPMT 302 Special Topics in Sport Management**

This course is designed to familiarize students with a special topic in sport management. (1)

Lecture: 3 hrs./wk.

**SPMT 303 Sport Technology & Creativity**

This course explores the current trends of the sport industry through exposure and training of students for competencies in current technology and creative processes. Students will then actively apply these principles to sport-management related functions. (1)

Lecture: 3 hrs./wk.

**SPMT 313 Sport Marketing**

This course explores the sport marketing process as it relates to research, promotion, sponsorships, and public relations activities in athletics, fitness, and commercial sport operations. Students will examine the principles of athletic and commercial sport operations, with a special emphasis on understanding the techniques and strategies used in meeting the wants and needs of consumers in the sports industry. Students will then actively apply these principles to develop marketing strategies for sport and sport-related organizations. (1)

Lecture: 3 hrs./wk.

**SPMT 320 Behavioral Perspectives in Sport**

This course provides students the opportunity to analyze the complexity of sport consumer behavior. Special emphasis is given to understanding the psychology of fans and spectators and the implications for sport marketing. Students will analyze how sport properties utilize consumer research methodologies and benefit from data-driven decisions. (1)

Lecture: 3 hrs./wk.

**SPMT 405, 406, 407 Independent Study or Research**

A program of advanced intensive study and/or research in sport management under the guidance of departmental staff. (Admission with recommendation of the directing professor and approval of the department chair.) (.5, 1, .5)

**SPMT 412 Capstone: Advanced Principles and Practice of Sport Management**

An in-depth analysis of the sport industry with special emphasis given to the sport manager's roles and functions. Students will develop a thorough understanding of the following principles: event management, facilities management, risk management, sport marketing, sport finances, sponsorship, communications, compliance and career preparation. This course is designed to integrate key concepts from previous courses while requiring a comprehensive understanding of the industry. (1)

Lecture: 3 hrs./wk.

*Prerequisite: SPMT 190; 2 of the following: SPMT 210, SPMT 215, SPMT 225; and 1 of the following: SPMT 313, SPMT 320.*

**SPMT 415, 416, 417 Sport Management Internship**

An opportunity for students to gain practical work experience in an area related to Sport Management. This course will be graded on a pass-fail basis (60 hours on site; 120 hours on site; 60 hours on site). (.5, 1, .5)

*Prerequisite: Permission of internship supervisor and department chair.*

**SPMT 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance. Prerequisite: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (.5, 1, .5)

## STATISTICS

*Professors Adam Childers, David Taylor; Associate Professors Christopher Lee, Margaret Rahmoeller; Lecturers Roger Reakes, Claire Staniunas, Michael Weselcouch*

Roanoke College does not offer a major in Statistics.

### Concentration in Statistics:

#### Required Courses (2)

INQ 240	Statistical Reasoning or HNRS 240 or STAT 210 Statistical Methods I
STAT 220	Statistical Methods II

#### Elective Courses (Choose 3)

STAT 301	Mathematical Statistics
STAT 303	Experimental Design
STAT 304	Applied Regression Analysis
STAT 406	Independent Study (or STAT 405 and 407)
STAT 416	Internship
MATH 388	Topics in Mathematics (pending approval of the department)

One of these units may be ECON 348 (Introduction to Econometrics) or, with the approval of the concentration coordinator, a Quantitative Methods course from another discipline.

#### STAT 210 Statistical Methods I

Data collection and experimental design, graphical and numerical methods for describing data, correlation and linear regression, probability models, random variables, the central limit theorem, one and two sample hypothesis tests and confidence intervals, Chi-Square test, and one-way ANOVA. (1) (May not enroll in INQ/HNRS 240 if STAT 210 has been completed; may not receive credit for STAT 210 if INQ/HNRS 240 has been completed.)

Lecture: 3 hrs./wk.

#### STAT 220 Statistical Methods II

Simple and multiple regression techniques, one and two-way ANOVA, nonparametric methods, logistic regression, big data, and bootstrap methods. (1)

Lecture: 3 hrs./wk.

*Prerequisites: INQ/HNRS 240 or STAT 210.*

#### STAT 301 Mathematical Statistics

Probability, discrete and continuous distributions, moments and moment-generating functions, sampling theory, and estimation. (1)

Lecture: 3 hrs./wk.

*Prerequisites: MATH 122.*

#### STAT 303 Experimental Design

Analysis of variance, analysis of covariance, multiple-range tests, completely randomized and randomized block designs, Latin squares, factorial designs, and split-plot designs. (1)

Lecture: 3 hrs./wk.

*Prerequisite: STAT 210 or 220.*

#### STAT 304 Applied Regression Analysis

Applied statistical methods with emphasis on interpretation of regression models, data analysis, statistical computation, and model building. Specific topics covered include: simple and multiple linear regression, non-

linear regression, correlation, use of dummy variables, the diagnoses of residuals, selection of variables, and time series techniques. There will be a significant use of statistical software. (1)

*Prerequisite: STAT 210 or 220.*

### **STAT 405, 406, 407 Independent Study and Research**

Selected topics in statistics carried out under the direction of a member of the departmental staff. Enrollment with the approval of the department. (1/2, 1, 1/2)

### **STAT 416 Internship**

Field placement providing practical experience and training in areas in which statistics is applied. These areas may include industry, government agencies, educational institutions, insurance companies, and a variety of private enterprises. Permission of the department is required. (1)

## **TEACHING ENGLISH AS A SECOND LANGUAGE EDUCATION**

For courses in this sequence and requirements for teacher licensure the Education section in this catalog.

## **THEATRE**

*Assistant Professor Nelson Barre; Technical Director Robert Bessolo*

The Theatre major at Roanoke College is designed to give students a well-balanced education in the art of theatre. Students are expected to take courses in each of the three disciplinary areas: Performance, Production and Design, and History and Literature in order to have a better understanding of all aspects of theatre, regardless of specialty or focus.

A major in Theatre requires the completion of 11.5 units. These include:

### **6 units from the core**

THEA 101	Fundamentals of Theatre
THEA 125	Stagecraft
THEA 112	Acting I
THEA 240	Theatre History I
THEA 241	Theatre History II
THEA 450	Play Direction

### **1.5 units of theatre lab (chosen from any combination of**

THEA 103	Theatre Lab (1/4)
THEA 203	Intermediate Theatre Lab (1/2)
THEA 303	Advanced Theatre Lab (1)

*\*A minimum of four THEA 103 must be successfully completed before eligible for application for 203 or 303.*

**Three units at the 200 or 300 level, one from each of the following areas: Performance, Production and Design, and History and Literature**

### **Performance**

#### **1 unit from**

THEA 212	Acting II
THEA 215	Voice and Diction
THEA 312	Acting III
THEA 399	Special Topics (as appropriate)

### **Production and Design**

THEA 225	Scene Design
THEA 275	Costume Construction
THEA 325	Lighting Design

THEA 375	Costume Design for the Stage
THEA 399	Special Topics (as appropriate)

### **2 units from Electives**

Electives may come from any 200- or 300-level Theatre course not used to satisfy the student's core requirements, one INQ 270 and 271 course taught by Theatre faculty, with permission, or from courses in another major that have been approved by the department.

### **Minor in Theatre**

A minor in Theatre requires six and three-quarter units, to include:

#### **2 Units selected from the core:**

THEA 101	Fundamentals of Theatre
THEA 112	Acting I
THEA 125	Stagecraft
THEA 240	Theatre History I
THEA 241	Theatre History II

**Four one-unit THEA courses at any level (with approval, students may apply one non-THEA course)**

**Three graded one-quarter credit courses in THEA 103 Theatre Lab**

### **Theatre Education**

For courses in this sequence and requirements for teacher licensure consult the Education section in this catalog.

#### **THEA 101 Fundamentals of Theatre**

An introduction to the collaborative art of theatre and dramatic literature through lectures, discussion of basic artistic components involved in the theatrical process, and attending live theatre. (1)

Lecture: 3 hrs./wk.

#### **THEA 103 Theatre Lab**

Laboratory work designed to give the student experience in mounting a play on the stage. May be repeated for credit. (1/4).

Lecture: None; Laboratory: Approximately 40 hours/term.

*Prerequisite: Permission.*

#### **THEA 112 Acting I**

The practical application of the fundamental principles of acting, including voice, movement, analysis, and scene work. (1)

Lecture: 4.5 hrs./wk.

#### **THEA 125 Stagecraft**

Techniques and principles of scenery construction and other elements of technical production. (1)

Lecture: 3 hrs./wk.; Laboratory: 50 hrs./term.

#### **THEA 170 Make-up for the Stage**

Lectures on and practical experience with the techniques used in stage make-up. Covers the materials and techniques for traditional stage make-up application, 3-D special effects, and prosthetics. (1)

Lecture-Laboratory: 3 hrs./wk.

*Prerequisite: Permission.*

#### **THEA 199 Special Topics in Theatre and Drama**

Lab experience in such production activities as audition techniques, stage combat, movement for the stage, and stage makeup. (1/4). May be repeated for credit.

Lecture/Laboratory: hours vary.

*Prerequisite: Permission.*

### **THEA 203 Intermediate Theatre Lab**

Enrollment in THEA 203 will be reserved for students whose role/job is more substantial requiring additional commitment of time, engagement, and responsibilities. The type of jobs which qualify for THEA 203 may include: an assistant to a designer, a stage manager/assistant for a director, or an especially demanding acting role. (1/2)

Lecture-None; Laboratory: Approximately 60 hours/term.

*Prerequisite: Successful completion of four graded THEA 103 or permission, with departmental approval.*

### **THEA 212 Acting II**

Continuation of the practical application of the fundamental principles of acting, introduced in Acting I, including voice, movement, analysis, and scene work. (1)

Lecture: 4.5 hrs./wk.

*Prerequisite: THEA 112 or permission.*

### **THEA 215 Voice and Diction**

An overview of the use of voice in theatre, radio, and other media. Emphasis on technical control, linguistic vocabulary, and an introduction to dialects. (1)

Lecture: 3 hrs./wk.

### **THEA 225 Scene Design**

Techniques and principles for designing scenery for the stage. Model building is central to project work as is basic drafting. Thumbnail and perspective sketching are incorporated in this class. (Extra materials required.) (1)

Lecture: 3 hrs./wk.

*Prerequisites: THEA 125 or permission.*

### **THEA 231 Playwriting**

A practical introduction to the techniques of dramatic writing. Readings and possible studio productions of students' work. (1)

Lecture: 3 hrs./wk.

### **THEA 240 Theatre History I**

A study of the history and literature of theatre from its primitive origins to ca. 1700. It covers major developments in production conventions and dramatic literature, with attention given to theatre's connections to society. (1)

Lecture: 3 hrs./wk.

### **THEA 241 Theatre History II**

A study of the history and literature of theatre from ca. 1700 to present. It covers major developments in production conventions and dramatic literature, with attention given to theatre's connections to society. (1)

Lecture: 3 hrs./wk.

### **THEA 275 Costume Construction**

Techniques and principles of costume construction. Introduction to the materials, tools, and sewing techniques used for constructing basic stage costumes through project-based instruction. (1)

Lecture: 3 hrs./wk.; Laboratory: 50hrs/term.

### **THEA 299 Special Topics in Theatre and Drama**

Selected studies in specialized design, performance, or dramaturgical activities. May be repeated for credit. (1/2).

Lecture/Laboratory: hours vary.

### **THEA 303 Advanced Theatre Lab**

THEA 303 will be reserved for the exceptional student whose work onstage or behind the scenes has clearly proven they are ready for a leadership role on a production. The type of jobs which qualify for THEA 303 may include: working alongside faculty as a primary designer, supervising other in the scene shop or costume shop, taking full responsibility for the stage manager duties, or, taking on a major acting role which requires their attendance at most-if not all-rehearsals in a full-length play. (1)

Lecture: None; Laboratory: Approximately 80 hrs./term.



*Prerequisite: THEA 203 or permission, with departmental approval.*

### **THEA 312 Acting III**

Advanced application of the principles of acting covered in THEA 112 & 212, with an emphasis on in-depth work leading to mature interpretation and performance.

Lecture: 4.5 hrs./wk.

*Prerequisite: THEA 212.*

### **THEA 325 Lighting Design**

Lighting theory and basic electrical principles for stage applications, including drafting of light plots and the development of instrument schedules, cue sheets, etc. Students will use the computerized lighting system to gain experience in cue writing and data entry. (Extra materials required.) (1)

Lecture: 3 hrs./wk.

*Prerequisites: THEA 125 or permission. (THEA 225 recommended)*

### **THEA 330 Modern Drama**

Traces major modern movements in theatrical theory and dramatic literature beginning in the mid-19th century with particular emphasis on the first half of the 20th century. (1)

Lecture: 3 hrs./wk.

### **THEA 332 Focus: Shakespeare**

Analysis of selected plays with oral interpretation. (1) (Cross-listed as ENGL 332)

Lecture: 3 hrs./wk. Film-Laboratory: 2-3 hrs./wk.

*Prerequisites: Two 200-level ENGL classes; or by permission.*

### **THEA 375 Costume Design for Stage**

A study of techniques and principles for designing costumes for the stage through the analysis of scripts and characters, research, thumbnail drawings and final drawn and/or painted renderings. (Extra Material required.) (1)

Lecture: 3hrs./wk.

*Prerequisites: THEA 101 or permission.*

### **THEA 399 Special Topics**

Advanced studies in specialized design, performance, or dramaturgical activities. (1) May be repeated for credit.

Lecture-Laboratory: hours vary.

### **THEA 405, 406, 407 Independent Study and Research**

A program of advanced intensive study and experience in theatre under the guidance of the departmental staff. The student must submit a written proposal to the Department before the beginning of Examination Week of the term prior to the term in which the work is to be done. See departmental guidelines. (1/2, 1, 1/2)

Lecture-Laboratory: hours vary

*Prerequisites: Departmental approval of proposal and four graded one-quarter units of Theatre Lab.*

### **THEA 416 Internship**

Practical experience working in or with an artistic organization as participant-observer, leading to the preparation of a report which describes and evaluates that organization's activities. The student must submit a written proposal to the department before the beginning of Examination Week of the term prior to the term in which the work is to be done. See departmental guidelines. (1)

Lecture-Laboratory: hours vary.

*Prerequisite: Departmental permission.*

### **THEA 450 Play Direction**

The principles, problems, and techniques of directing plays. (1)

Lecture: 4.5 hrs./wk.

*Prerequisites: THEA 101, 112, 225 or 325 or 375, 240 or 241. (THEA 212 recommended), or permission.*

### **THEA 495, 496, 497 Honors Project**

A program of independent study culminating in a paper, artistic creation, or performance.

*Prerequisites: To qualify for consideration to receive honors in the major, a student in the senior year or in the summer prior to the senior year, must work under the guidance of a committee. A written proposal and application must be approved by the committee and department. A minimum GPA of 3.4 in the major is required. 495 Honors Project is prerequisite for 497 Honors Project. (1/2, 1, 1/2)*

## **WRITING**

Students from all academic disciplines may enroll in writing courses.

### **WRIT 306 Tutoring Across the Curriculum**

A study of writing and tutoring theory and pedagogy that provides the knowledge, skills, and strategies to support one on one and small group tutorials, writing-based workshops, and research projects in writing issues across the academic disciplines. Enrolled students work as Writing Center tutors. (1) (Cannot be repeated for credit.)

Lecture: 3 hrs./wk.

*Prerequisite: Intellectual Inquiry 110 and permission.*

### **WRIT 405, 406, 407 Independent Study**

Guided in-depth study of a topic in writing center research and pedagogy leading to a substantial paper, project, or conference presentation in the discipline. (1/2, 1, 1/2)

*Prerequisite: WRIT 306*

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